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UN SABIEDRĪBAS PĀRVALDĪBA
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**EKONOMIKA, INOVATĪVA
UZŅĒMĒJDARBĪBA
UN SABIEDRĪBAS PĀRVALDĪBA**
*Economics, Innovative Business and
Public Administration*

DEPOZĪTA SISTĒMAS ANALĪZE UN EKONOMISKAIS NOVĒRTĒJUMS

Analysis and Economic Evaluation of Deposit Refund System

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Abstract. *The aim of this research is to analyse the deposit refund system and to perform economic evaluation of deposit refund system implementation in Latvia. To achieve this, the authors will use following methods: gathering and further analysis of statistical data, comparative analysis and cost benefit analysis. Main conclusions of the research reveal that despite being a costly solution, deposit refund system brings certain benefits and the payback period can be approximately ten years. Moreover, with the increase of the deposit fee the overall financial ratios of the system can be significantly improved.*

Keywords: *analysis of container system, cost – benefit analysis, circular economy, costs of waste management deposit refund system.*

Ievads

Introduction

Eurostat dati (2018) liecina, ka Latvijā kopējais radītais sadzīves atkritumu (mājsaimniecības un tiem pielīdzināmo) daudzums 2016.gadā bija 802 473,93 tonnas un no tā apmēram 10-15% veido iepakojums, kurš netiek dalīti vākts, pārstrādāts un nonāk kopējā atkritumu plūsmā. Ieviešot depoziāta sistēmu, valstis veicina pieaugošā vides piesārņojumu samazinājumu un Eiropas Savienībā pieņemtās Eiropas Parlamenta un Padomes Direktīvas 94/62/EK par iepakojumu un izlietoto iepakojumu prasību ievērošanu, nosakot valsts minimālos izlietotā iepakojuma pārstrādes un reģenerācijas mērķus. Latvijā tiek virzīts jautājums

par depozīta sistēmas ieviešanu, tāpēc ir svarīgi aprēķini, kas ļauj pamatoti argumentēt depozīta sistēmas ieviešanas nepieciešamību paralēli izveidotajai dalītās atkritumu savākšanas sistēmai.

Pētījuma mērķis ir izanalizēt depozīta sistēmu un sniegt ekonomisko novērtējumu Latvijā. Šobrīd 9 Eiropas Savienības valstīs, kas aptver vairāk nekā 130 miljonus iedzīvotāju, tiek piemērota depozīta sistēma. Latvijas kaimiņvalstīs Lietuvā (2016.g.) un Igaunijā (2005.g.) sistēma jau pastāv. Saskaņā ar Reloop sniegto informāciju (2018. gads) depozīta sistēma ir pārbaudīts instruments, lai savāktu lielu daudzumu tukšu dzērienu iepakojuma atkārtotai izmantošanai un kvalitatīvai pārstrādei, un ir svarīgas aprītes ekonomikas nodrošināšanai.

Pētījuma ietvaros tika analizēta depozīta sistēma piemērošana Eiropas Savienības līmenī, nosakot tās ilgtspējīgu attīstību nākotnē un veikts depozīta sistēmas ekonomiskais novērtējums, ieviešot to Latvijā.

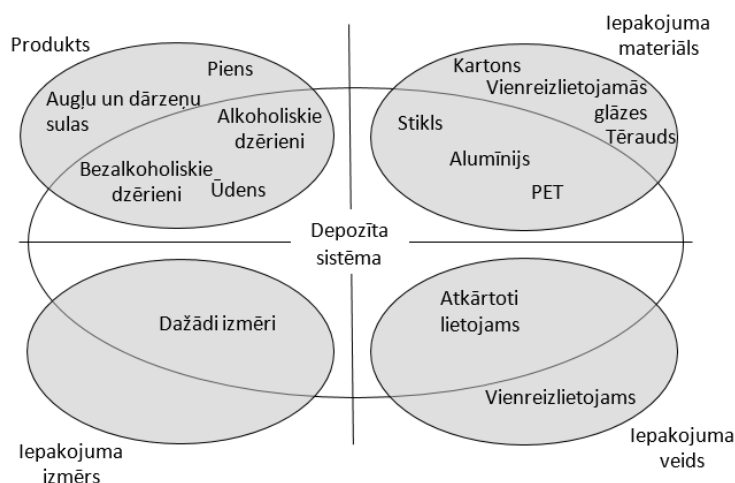
Pētījuma izstrādē tika izmantotas šādas pētījuma metodes: statistiskā analīze, zinātniskā analīze, kontentanalīze, izmaksu – ieguvumu analīze un matemātiskā modelēšana.

Depozīta sistēmas būtība *Essence of the deposit-refund system*

Vēsturiski depozīta sistēmas piemērošana dzērienu iepakojumam atsevišķās valstīs tika aizsākta brīvprātīgi, jo ražošanas izmaksas par izejvielām jaunu iepakojumu ražošanai un ražošanas izmaksas bija lielākas par izlietotā iepakojuma savākšanas izmaksu un pārstrādes izmaksu summu. Iepakojuma depozīta sistēmas ietvaros dzērienu iepakojumam (stikla pudeles, PET pudeles, skārdenes) tiek piemērota papildus depozīta maksa, kuru patērētājs var atgūt atpakaļ (tādā pašā apmērā, kādā tā tika iekasēta iegādājoties dzērienu), nododot izlietoto iepakojumu tirdzniecības vietā vai speciāli tam paredzētā pieņemšanas punktā (pieņemšana var būt organizēta gan manuāli, gan automatizētā formā). (Brizga, Dimante, & Atstāja, 2012; Cudecka-Purina & Atstāja., 2018; Dāce, Pakere, & Blumberga, 2013; Simon, Foldenyi, & Amor, 2015; Tomkevičiūtē & Stasiškienē, 2006; Kalinovskaya, 2016)

Venna diagrammā jeb kopu diagrammā, kura attēlo visas iespējamās loģiskās attiecības starp galīga skaita kopām, ir attēlots produktu un iepakojumu klāsts, kas attiecas uz depozīta sistēmu (skatīt 1. attēlu). Depozīta sistēmā tiek iekļauti tādi produkti kā ūdens, bezalkoholiskie dzērieni un alkoholiskie dzērieni ar alkohola saturu līdz 10 grādiem (alus, sidrs, kokteiļi un tml.). Higiēnas aspekts tiek ņemts vērā, veidojot depozīta sistēmas dizainu, tāpēc ieviešot depozīta sistēmu uzmanība ir jāpievērš izgatavošanas materiālam (Gandy, Fry, & Downes, 2008; Zero Waste Scotland, 2017). Viens no risinājumiem, ko piedāvā vairāki pētnieki savos pētījumos, ka shēmā tiek ietverti visi iepakojuma

materiāli, paredzot izņēmumus attiecībā uz dažiem produktiem, neatkarīgi no iepakojuma, kuros to pārdod. Tādejādi būtu iespēja izvairīties no neobjektivitātes par labu vienam materiālam (Cudecka-Purina & Atstaja, 2018; Gandy et al., 2008; Simon et al., 2015).



1.attēls. *Produktu un iepakojumu veidi depozīta sistēmā (autoru veidots)*

Figure 1 *Types of products and packaging in the deposit system (by authors)*

Iepakojumu iedala divās kategorijās – vienreiz lietojamie iepakojumi un iepakojumi, kurus ir iespējams lietot atkārtoti vairākas reizes vienam un tam pašam mērķim. Atkritumu dalītās vākšanas konteinerus, izmanto lai savāktu iepakojumu, kuru var pārstrādāt. Šādā veidā nevāc iepakojumu, kuru paredzēts izmantot atkārtoti tā sākotnējam mērķim. Lai gan plastmasas atkārtota izmantošana var samazināt CO₂ emisiju, tomēr tiek apgalvots, ka plastmasas materiālu atkārtota izmantošana nav ekonomiski izdevīga, norādot, ka plastmasas savākšanas un pārstrādes izmaksas ir pārāk augstas salīdzinājumā ar sadedzināšanu (Gradus, Nillesen, Koppen, & Dijkgraaf, 2016; Simon et al., 2015).

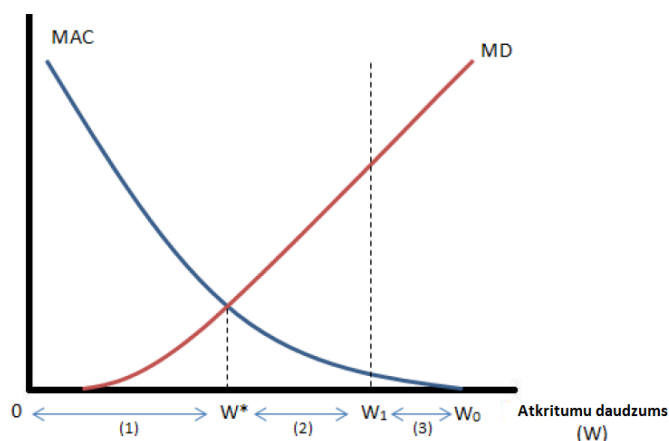
Materiāls un metodika

Materials and Methods

Optimālais atkritumu daudzums ir grafiski attēlots 2. attēlā. Robežizmaksu samazinājuma līkne (*MAC-marginal abatements costs*) ietver papildus atkritumu vienības attīrīšanas izmaksas un marginālā kaitējuma līkne (*MD-marginal damage*), kas ietver papildus atkritumu vienības radītos bojājumus (eiro izteiksmē) sabiedrības labklājībai. Optimālais atkritumu līmenis (W^*) atrodas MAC un MD krustpunktā. Pa kreisi no šī punkta atkritumu samazināšanās izmaksas ir augstākas nekā kaitējuma priekšrocības ($MAC > MD$), kas nozīmētu

labklājības samazināšanos sabiedrībai. Pa labi no šī punkta ir attēloti ieguvumi no izlietotā iepakojuma atgriešanas. Ieguvums no samazināto atkritumu daudzuma ir lielāks par izmaksām ($MAC < MD$), kas liek secināt, ka sabiedrībai ir izdevīgi samazināt atkritumu apjomu.

Ja pieņem, ka ekonomikā atkritumu daudzums ir vienāds ar W_1 , tad atkritumi tiek pārstrādāti un samazināti līdz $W_0 - W_1$ un ir skaidrs, ka $W_1 - W^*$ ir atkritumu līmenis, kuru ir iespējams samazināt ieviešot depozīta sistēmu, taču depozīta sistēmas ieviešanas galvenais virzītājspēks ES un ārpus tās atšķiras. Sistēma, kas darbojas Eiropā, parasti koncentrējas uz pārstrādi, kuras pamatā ir Eiropas tiesību aktos noteiktie pārstrādes mērķi, savukārt valstis ārpus ES koncentrējas uz atkritumu apjoma samazināšanu (Deprez, 2016; Lee, Garcia, Bertham, & Fitzsimons, 2018).



- (1) Atkritumi līdz apsaimniekošanai
- (2) Atkritumi, kas jānovirza no apglabāšanas uz reģenerāciju vai atkārtotu lietošanu caur depozīta sistēmu
- (3) Reālā atkritumu pārstrāde un apjoma samazināšana

2.attēls. Atkritumu daudzums un optimālā apsaimniekošana

(Pearce & Turner, 1993; Deprez, 2016)

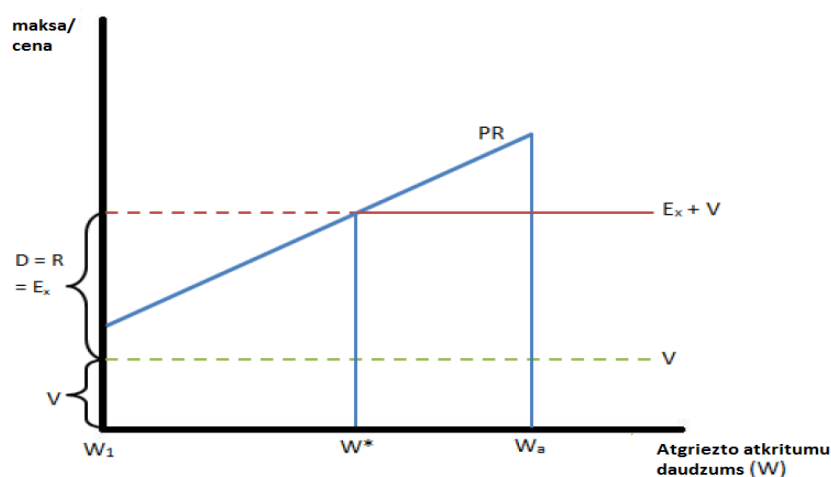
Figure 2 *Quantity and optimal management of waste*

(Pearce & Turner, 1993; Deprez, 2016)

Ieviešot depozīta sistēmu, svarīgi novērtēt kādas priekšrocības sistēma spēs sniegt un vai tās būs pārākas par trūkumiem. Pie priekšrocībām jāmin atkritumu samazināšanu; savāktā iepakojuma apjoma palielinājumu; tīrāku atkritumu plūsmu; jaunas darbavietas; zaļo enerģiju u.c., bet pie trūkumiem – augstas ieviešanas izmaksas, ietekmi uz mazumtirgotājiem. Ražotāji piedalās sistēmā, jo citādi viņiem ir jāmaksā dabas resursu nodoklis par katru iepakojuma materiāla svara vienību. Ja nodoklis ir augstāks nekā dalības izmaksas depozīta sistēmā, ražotājiem ir liela motivācija iesaistīties depozīta sistēmā (Dāce et al., 2013). Vairāki autori min kā negatīvu aspektu, augstas sākotnējās izmaksas depozīta sistēmas izveidei, jo īpaši, ja savākšanas sistēmā tiek izmantotas automātiskās iekārtas, kas ļauj patērētājiem atgriezt izmantotos iepakojumus un atgūt depozīta maksu jebkurā laikā (Numata, 2009; Kim & Song, 2015). Analizējot ieguvumus

operatoriem, tad tiem ir atļauts neizmantotos depozītus saglabāt kā peļņu. Saskaņā ar depozītu atmaksāšanas sistēmu, ja patērētāji neatgriež izmantotos produktus, mazumtirgotāji var paturēt depozīta maksu. Patērētāju vēlmi atgriezt izlietoto iepakojumu un robežizmaksas, kas rodas patērētājiem, atdodot izlietoto iepakojumu skatīt 3. attēlā.

Pieaugot depozīta maksas summai, patērētājam ir stimuls atgriezt izlietoto iepakojumu. PR līkne izriet no W_1 , kas ir piesārņojuma līmenis - maksimālais atkritumu daudzums, ko sabiedrība nav pārstrādājusi. Šī līkne apstājas pie W_a , kas atspoguļo līmeni, kurā tiek atgriezti visi izlietotie iepakojumi. Mainīgie E_x un V norāda attiecīgi uz atkritumu izmaksām un atgriezto preču atkārtotas izmantošanas neto vērtību. Tādējādi veidojot E_x+V – līkne, kura parāda iedzīvotāju ieguvumu samazinot atkritumu apjomu. Punktā W^* iedzīvotāju ieguvumi ir vienādi ar zaudējumiem ($PR = E_x + V$). Tādējādi var secināt, ka optimālā patērētāju saņemtā kompensācija ir vienāda ar $R + E_x$. $W_a - W^*$ ir optimālais atkritumu daudzums, kas var tikt neatgriezts - tas ir vienāds ar W^* 2. attēlā (Deprez, 2016; Simon et al., 2015).



3.attēls. *Depozīta sistēmas shēma* (autoru veidots balstoties uz Deprez, 2016)
 Figure 3 *Deposit refund system scheme* (autoru veidots balstoties uz Deprez, 2016)

Pieņemot, ka ražotājs maksimizē peļņu, ir redzams, ka ražotājs vēlas izmantot atgriezto iepakojumu atkārtotai izmantošanai, lai samazinātu ražošanas izmaksas. Tas ir iemesls, kāpēc ražotājs vēlētos, lai tiktu ieviesta depozīta sistēma, taču, lai depozīta sistēma būtu rentabla ražotājam, viņš piedāvā kompensāciju, kas ir mazāka par atgrieztā iepakojuma atkārtotu izmantošanu ($R < V$). Operatoram ir trīs ienākumu avoti – no patērētājiem, pārstrādātājiem un iepakotājiem. Operators maksā tirgotājiem maksu par izlietotā iepakojuma savākšanu tirdzniecības vietā, un norēķinās par citiem izdevumiem, kas sevī ietver iepakojuma pieņemšanas, uzglabāšanas, transportēšanas izmaksas, sedz

iepakojuma plūsmas uzskaites izmaksas, kā arī samaksā par patērētājiem atgriezto depozītu. Bez ienākumiem no materiālu pārdošanas, operatoram ir ienākumi par iepakojumu, ko klients nav atdevis. Operatora darbības izmaksas veido aizdevuma un procentu maksājumi, darba, transporta, uzturēšanas, ražošanas un administratīvās izmaksas. Savukārt, par iepakojuma savākšanu ir atbildīgs ražotājs (Dāce et al., 2013; PriceWaterhouseCoopers, 2008.).

Izmaksu un ieguvumu analīzes mērķis ir novērtēt, kāds būs depozīta sistēmas ieviešanas ieguldījums sabiedrības labklājībā. Izmaksu ieguvumu analīze sniedz skaidru izpratni par konkrētu priekšlikumu ekonomiskajām izmaksām un ieguvumiem, taču pieņemot lēmumus ir nepieciešama kritiskā domāšana (Davis, 2017; Hahn, 2017). Lai novērtētu depozīta sistēmas ieguvumus un zaudējumus, aprēķinos tiek izmantots rādītājs NPV – neto tagadnes vērtība. Neto tagadnes vērtību aprēķina pēc 1. formulas (Bell, 2017).

$$NPV(t) = \sum_{i=t}^T \frac{CF(i)}{(1+r)^i} - ICO \quad (1)$$

kur

CF - naudas plūsma

i - laika periods

r – diskonta likme

ICO – sākotnējā investīciju vērtība

Papildus izmaksu un ieguvumu analīzei tika veikta arī jutīguma analīze un daudzkritēriju analīze (*a multi-criteria analysis*), kā arī attiecīgo alternatīvu analīze, lai gūtu papildus pārlicību par iegūtajiem rezultātiem. Lai izmaksu un ieguvumu analīze būtu precīzāka, svarīgi ir veikt ne tikai jutīguma analīzi, bet arī dzērienu iepakojuma statistisko analīzi. Kopējā iepakojuma apsaimniekošanas izmaksu aprēķinā tika ņemtas vērā ražotāju atbildības sistēmu (RAS) vidējās iepakojuma apsaimniekošanas cenas, savukārt parastā un depozīta iepakojuma apsaimniekošanas cenas tika iegūtas izmantojot Igaunijas zaļā punkta datus, kas rāda, kādas būs izmaksas, paralēli ieviešot depozīta sistēmu.

Rezultāti

Results

Kopējā iepakojuma apsaimniekošanas izmaksas, balstoties uz RAS apsaimniekošanas vidējām izmaksām un Eurostat datiem, 2015.gadā veidoja 13,3 milj. eiro, savukārt ieviešot depozīta sistēmu 26 milj. eiro. Otrreizējās pārstrādes apjoms kopējam iepakojumam bija 126 012 tonnas, savukārt parastā un depozīta iepakojuma otrreizējas pārstrādes apjoms bija 132 833 tonnas, no kurām 88% jeb 116 568 tonnas otrreizēji pārstrādāja primāro iepakojumu un 12%, jeb 16 266 tonnas pārstrādāja depozīta iepakojumu. Autores secina, ka

otrrreizējās pārstrādes apjoms, ieviešot depozīta sistēmu, pieaugtu par 5,4%, jeb 6 821 tonnām. Līdz ar otrrreizējās pārstrādes apjoma palielināšanos, pieaugtu arī kopējā iepakojuma reģenerācijas apjoms par 3%, sastādot 57%.

Kartona iekļaušana depozīta sistēmā izteikti palielinātu depozīta iepakojuma apsaimniekošanas izmaksas Latvijas konteineru sistēmā, proti, apsaimniekošanas izmaksas ieļaujot kartonu depozīta sistēmā pieaugtu uz 8 009 198 eiro, taču ja kartons netiktu iekļauts, izmaksas saruktu uz 1 829 424 eiro. Depozīta iepakojuma apsaimniekošanas izmaksas depozīta sistēmā, ietverot kartona iepakojumu dzērienu, skatīt 1. tabulā.

1.tabula. Depozīta iepakojuma apsaimniekošanas izmaksas depozīta sistēmā (autoru veidota)

Table 1 Costs of packaging management within deposit system (by authors)

	Vienības	Apsaimn. maksa (bez PVN)	Summa	Apsaimn. maksā	Patiesās izmaksas Lietuvā pie 93% savākšanas	
					eiro	eiro
	gab.	eiro/gab.	eiro	eiro/tonnu	eiro	eiro
Stikls	26 000 000	0,025	650 000	100	0,04	1 040 000
PET	262 000 000	0,035	9 170 000	1094	0,03	7 860 000
Metāls	157 000 000	0,015	2 355 000	904	0,01	1 727 000

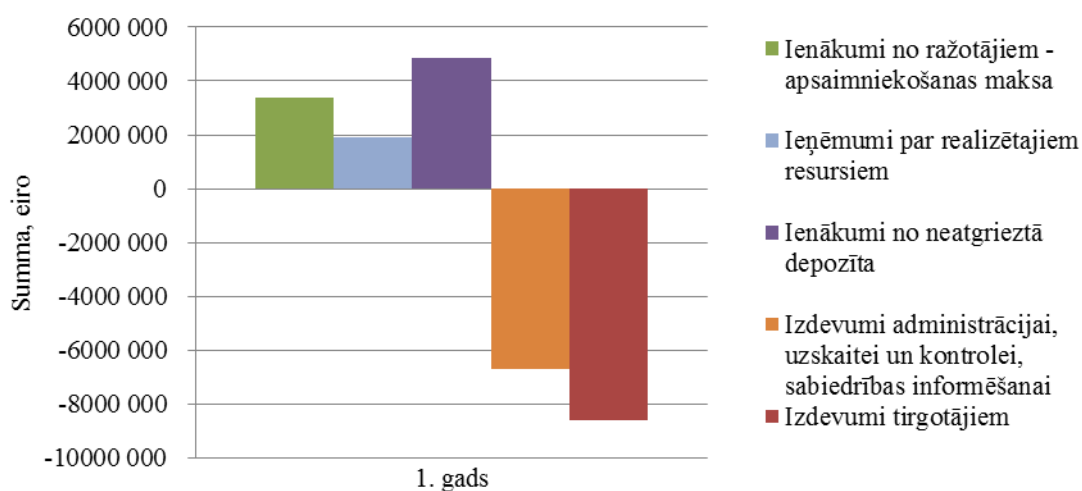
Pieņemot lēmumu par depozīta sistēmas ieviešanu Latvijā, rekomendē lemt par kartona dzērienu iepakojuma pieņemšanu automātos, jo tehniski tas ir iespējams – tas ļautu apsaimniekot vairāk atkritumu. Līdz ar kartona dzērienu iepakojuma ieļaušanu depozīta sistēmā pieaugtu otrrreizējās pārstrādes apjoms (skatīt 2. tabulu). Iekļaujot kartona dzērienu iepakojuma depozīta sistēmā, reģenerācijas apjoms pieaugtu par 9%, sastādot 63%. Ieviešot depozīta sistēmu (iekļaujot kartonu) otrrreizējās pārstrādes apjoms gan parastajam iepakojumam, gan depozīta iepakojumam būtu par 21 086 tonnu, jeb 16,7% lielāks nekā kopējā iepakojuma otrrreizējās pārstrādes apjoms bez depozīta sistēmas. Depozīta sistēmas ieviešana mājsaimniecībām nesīs ieguvumus – pirmajā gadā tie būs 1192 tūkst. eiro, savukārt desmitajā gadā tie pieaugs līdz 2003 tūkst. eiro, veidojot kopējos ieguvumus desmit gadu laikā 16095 tūkst. eiro. Ienākumi, ieviešot depozīta sistēmu, pieaugs, jo būs iespēja nodot vairāk taras (t.sk. dažādas stikla pudeles), kā arī patērētāju ienākumi ik gadu pieaugs, jo pieaugs atgrieztās taras īpatsvars. Tirgotāju ieguvums no depozīta sistēmas ieviešanas desmit gados būs 558 tūkst. eiro. Ienākumi tirgotājam rodas no operatora savākšanas maksas.

2.tabula. Iepakojuma apsaimniekošanas apjomu un izmaksas salīdzinājumu 2015.gadā, iekļaujot kartonu depozīta sistēmā (autoru veidota)

Table 2 Comparison of packaging management volumes and costs in 2015, including cardboard in the deposit system (by authors)

Nosaukums	Kopējais iepakojums	Parastais iepakojums	Depozīta iepakojums	Izmaiņas	
Realizācijas apjoms, tonnas	233 356	179 289	54 067		
Reģenerācijas norma, %	54%	54%	93	63%	9%
Otrreizējās pārstrādes apjoms, tonnas	126 012	96 816	50 282	tonnas	%
		147 098		21 086	16,7
		66%	34%		
Apsaimniekošanas izmaksas, milj. eiro	14,1	11,6	14,7		
		26,3		12,2	87

Valsts un sabiedrības ieguvumi gadu no gada pieaugs, ieviešot depozīta sistēmu, un desmit gadu laikā būs 9666 tūkst. eiro. Ieguvumi radīsies, jo tiks samazinātas izmaksas lielajām talkām, kuras ik gadu tiek rīkotas Latvijā, tiks samazināts siltumnīcas gāzu emisiju radītais piesārņojums – ietaupījums būtu 19-25,7 milj. tonnu CO₂ gadā.



4.attēls. Operatora ienākumi un izdevumi depozīta sistēmā (autoru veidots)

Figure 4 Cost/benefit of Deposit Refund system operator (by authors)

No 4. attēla var secināt, ka ar depozīta sistēmas ieviešanu pieaugs darba vietu skaits un tādējādi operatora ienākumi un izdevumi ir līdzsvarā.

Ierobežojumi un pateicības ***Limitations and Acknowledgment***

Pētījuma ietvaros netika paredzētas būtiskas izmaiņas makroekonomiskajos rādītājos (iedzīvotāju skaits, pirktspēja, IKP u.c.).

Pētījums izstrādāts pateicoties Banku augstskolas pētniecības grantam “Aprites ekonomikas perspektīvas Baltijas valstīs”.

Secinājumi ***Conclusions***

Ieviešot depozīta sistēmu, dzērienu iepakojuma reģenerācijas apjoms palielinātos par 3%, bet otrreizējās pārstrādes apjoms pieaugtu par 5,4%. Savukārt, iekļaujot kartona iepakojumu depozīta sistēmā, reģenerācijas apjoms pieaugtu par 9%, bet otrreizējās pārstrādes apjoms par 16,7%.

Mājsaimniecībām depozīta sistēmas ieviešana atmaksāsies jau pirmajā gadā. Depozīta iepakojuma apsaimniekošanas izmaksas Latvijā esošajā sistēmā ir 1 829 424 eiro, savukārt ieviešot depozīta sistēmu, tās pieaugtu līdz 12 175 000 eiro. Savukārt, ja apskata kā mainās parastā iepakojuma apsaimniekošanas izmaksas ieviešot depozīta sistēmu, parastā iepakojuma apsaimniekošanas izmaksas pieaugs par aptuveni 4 milj. eiro. Tomēr jārēķinās, ka, ievērojot jaunus ES mērķus attiecībā uz atkritumu apglabāšanu un pārstrādi, tajā skaitā iepakojuma pārstrādi, tuvākā laikā būtiski pieaugs atkritumu apsaimniekošanas izmaksas, kas varētu būtiski mainīt minētās izmaksas un būt būtisks pamats depozīta sistēmas ieviešanai.

Autoru ieskatā, palielinot depozīta likmi dzērienu iepakojumam no 0,10 eiro uz 0,13 eiro, depozīta sistēmas ieviešana desmit gadu laikā radītu ieguvumus 82 tūkst. eiro apmērā, kā arī motivētu patērētāju atgriezt izlietoto iepakojumu.

Summary

Deposit refund system is management of packaging waste which was created to motivate consumers to return the packaging waste receiving back a deposit fee which was paid while purchasing the beverage. Deposit refund system is implemented in many European Union countries. Implementation and maintenance of this system requires high costs which is why it is important to evaluate the sustainability of it. In Latvia, the issue of the introduction of the deposit system is ongoing, and this is why it is important to carry out calculations that would justify the need for the introduction of the deposit system.

In Latvia, the issue of the introduction of the deposit system is being raised, so there are important calculations that justify arguing about the need for the introduction of the deposit system in parallel with the shared waste collection system.

The aim of this research is to analyse the deposit refund system and to perform economic evaluation of deposit refund system implementation in Latvia. To achieve this, the authors will use following methods: gathering and further analysis of statistical data, comparative analysis and cost benefit analysis.

Main conclusions of the research reveal that despite being a costly solution, deposit refund system brings certain benefits and the payback period can be approximately ten years. Moreover, with the increase of the deposit fee the overall financial ratios of the system can be significantly improved.

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EVALUATION AND SUGGESTIONS FOR IMPROVING THE SYSTEM OF TRAINING AND EDUCATION OF INDUSTRIAL PERSONNEL ON THE BASIS OF FOREIGN EXPERIENCE

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Abstract. *The paper deals with the concept and essence of the concept "Industry 4.0", characterized by the digitalization of all economic activities, and its significance and components are shown. The aim of the research study is to assess the existing system of education of engineering personnel and develop proposals for its improvement in the conditions of the fourth industrial revolution. Methods of empirical and theoretical research, including SWOT analysis, are used. With a SWOT-analysis the positive and negative aspects, as well as the opportunities and threats of implementing this concept in the economic life of Russia are estimated. The priority directions of formation information infrastructure of the digital economy are given. The components of the quality of educational services are identified. The experience of foreign countries shows that digital technologies will lead to transformations in the labour market, a new model of labour and employment "Work 4.0" will be distributed, within which a new type of labour activity will be developed, called an on-demand economy etc. New requirements of employers for training of personnel for industrial enterprises are particularly considered.*

Keywords: *competences, digital technologies, "Industry 4.0" concept, system of education.*

Introduction

The modern world is undergoing a profound digital transformation. The Internet of Things, that is, the connection of all kinds of devices, objects and sensors online turns into a giant, powerful and hypersensitive "superorganism" that can monitor, inform, manage operations and take measures in real time without active participation of individuals, in addition, creating unprecedented amount of data. Within the framework of the Industry 4.0 concept, various sensors, equipment, products in production and information systems will be

integrated within the production chain that extends beyond one enterprise. These interconnected complexes, the so-called cyber-physical systems, will interact with each other via the Internet on the basis of standard protocols, as well as independently collect and analyse data to predict failures, independently adjust and adapt to changes in the external environment. This in turn will increase productivity, give impetus to the development of the economy, promote industrial growth, and also change the requirements for the professional skills of the company's personnel, which, ultimately, will increase the competitiveness of companies and regions. The aim of the research study is to assess the existing system of education of engineering personnel and develop proposals for its improvement in the conditions of the fourth industrial revolution. Methods of empirical and theoretical research, including SWOT analysis, are used.

Methodology and literature review

The object of the research is the relationship between universities and employers in the process of transition to a new system of training and retraining of personnel. The subject of the research is the improvement of the system of training and education of personnel of industrial enterprises in the conditions of digital transformation. This problem is investigated in the works of many authors Barkalov S., Burkov V., Burkova I. (Burkov, Burkova, & Barkalov, 2018), Davydova T. (Davydova & Barkalov, 2018), Negroponte N. (Negroponte, 2015), et al.

In the summer of 2017 in Russia, the programme "Digital Economy of the Russian Federation" was adopted. One of the sections of the programme deals specifically with human resources and education. It is obvious that the country's education system needs to be transformed and adapted to meet the needs of the new digital economy. By creating modern conditions for the development of human resources, the state seeks to minimize the risk of unemployment and to prevent the stratification of society in the medium and long term. Moreover, J.M. Keynes (Keynes, 2010) in 1930 said that labour and technology have long maintained close and mutually beneficial relations. Advances in machine learning, robotics and artificial intelligence will inevitably cause automation, changing demand for labour and the movement of labour. Statistics show that although technological changes have helped to increase labour productivity and gain economic growth and create jobs, at the same time, new technologies have replaced labour in many sectors and professions, leading to the displacement of jobs by sector, region or profession (Avdeeva, Averina, & Kochetova, 2018). According to the research of the Agency for Strategic Initiatives and the "Skolkovo", it is projected that by the year 2030, 57 traditional occupations will

disappear and 186 new ones will appear, 19% of all workers can be replaced by robots (Sheenko & Stasevich, 2017).

K. Schwab, President of the World Economic Forum in Davos, notes that in terms of scale, scope and complexity, the fourth industrial revolution has no analogues in the entire previous experience of mankind (Schwab, 2016). In the next 20 years, up to 50% of working operations in the world could be automated. In 2015 the volume of the digital economy of Russia was estimated at 3.2 trillion rubles, which corresponds to 3.9% of GDP, and by 2025, according to forecasts of the company McKinsey, it will grow to 9.6 trillion rubles and will be 8-10% of GDP (McKinsey & Company, 2017).

The index of adaptation of Russian industry, which reached a historical maximum (74 points) in 2016, indicates that its financial and economic position is evaluated in the best way, that is, 82% of them are in good or satisfactory condition. While the percentage of positive assessments of the financial and economic situation for the period 2008-2009 did not rise above the level of 56 points. It can be assumed that Russian industry today is stable and has the potential for development, increasing production capacity and carrying out production modernization. The latter is a priority task both at the level of an individual enterprise to ensure its own competitiveness and at the state level for the implementation of the policy of import substitution. It should be noted that today industrial enterprises do not experience an acute shortage of personnel, as it was during previous crises. Three quarters of Russian industry, according to surveys, have enough employees to maintain the current output. This is evidenced by the indicator of staffing, which decreased in 2016 by only 5 percentage points up to 75%. At the same time, its previous value of 80% is considered to be the absolute maximum for the whole period (1996-2016) of observations on the supply of Russian industry with personnel (Ministry of Economic Development of the Russian Federation, 2016). For comparison, for example, in 1996 this indicator fell to 51%, and in 2009 - to 59%. However, according to monitoring data, industrial enterprises rarely chose the answer "more than enough" in the process of research in terms of staffing (no more than 12% in the current crisis). This could mean that in the case of the beginning of sustainable growth of Russian industry, it will be difficult to attract the necessary additional labour. This assumption is confirmed by the fact that more often as anti-recessionary measures enterprises use wage reduction, transfer to part-time employment, the introduction of unpaid leave instead of dismissal of employees (Averina & Avdeeva, 2013). That is, the management of industrial enterprises tries to treat workers, which are becoming fewer and fewer, extremely carefully. The difficulty in attracting new workers to the industry can be recognized by several reasons: 1) an inefficient system of secondary specialized education; 2) the decline in the popularity of technical specialties

among the younger generation in higher education. Let us take a closer look at each of them.

The modern system of secondary vocational education is not able to provide the necessary number of qualified personnel for industrial enterprises. The reasons for this lie both in the unsatisfactory state of the material and technical base of secondary special educational institutions, the low salaries of teachers, the residual principle of financing, and in lowering the social status of graduates of institutions of secondary vocational education. According to the results of the research conducted at the Higher School of Economics, the overwhelming majority of graduates consider it necessary for them to obtain a higher education - only 4.8% are satisfied with their secondary vocational or secondary general education. Also indicative is the statistics of the intentions of students on vocational education programmes to continue their education (Gokhberg, Zabaturina, & Kovaleva, 2016).

The situation in the sphere of higher education is not encouraging either. Over the last ten years, the Russian labour market has experienced overproduction of humanitarian specialists.

The loss of a whole generation of skilled engineers in the 1990s disrupted the cycle of the reproduction of labour in industry. That is, the older generation of workers who are now over the age of fifty, could not pass on their experience and knowledge to the younger, resulting in a qualification gap. This situation was also affected by the general shortage of workers of middle and young age associated with the demographic pitfall that arose when a small generation of the early 1990s came to replace the generation of "explosive fertility" of the 1950s. As a result, many industrial enterprises are faced with the problem of aging personnel, when valuable specialists are about to retire, and the labour market in return offers very young and lacking experience and knowledge candidates who do not like the employer (Gokhberg et al., 2016).

Research results

The newest digital technologies that are part of the digital infrastructure of the new economy are (Morozov & Morozova, 2018):

- Big data technologies and business analytics (Big Data) allow optimizing the quality of products, save energy and improve the efficiency of equipment;
- Blockchain technologies, in the form of a data bank, where information is stored in separate blocks, which is very convenient for fixing financial transactions;

- Internet of Things (ItoT), more and more devices will be equipped with computing power and standard network protocols, and the equipment will independently process data, interact with one another at the grassroots level and only if necessary provide access to a centralized control system;
- Neural networks (artificial intelligence), today robots increasingly become functionally independent, flexible and executive compared with their predecessors. Over time they will begin to interact with one another and not only to work quietly side by side with the person but also to learn. In the future, such robots will cost less, but have greater capabilities;
- Virtual and Augmented Reality technologies will be used to provide employees with up-to-date information, help in making decisions in real time and performing various tasks.

For example, it will be possible to obtain instructions how to replace a part in a faulty system directly at the time of its inspection with the aid of glasses of augmented reality;

- 3D modelling of objects, materials and production processes is widely used at the stage of new product development. In the future, this technology will be widely used in the production process, which will allow using real-time data in real time to represent the physical world in the form of a virtual model that includes equipment, products in production and personnel of the enterprise;
- Cloud technology, over time the quality of cloud storage technology will improve, and the response time will be reduced to milliseconds, and even the work of production control systems in the future will be based on cloud technologies;
- Intelligent sensors, the criteria for cyber security are secure access, reliable communication, as well as careful control of access of equipment and users to control networks (Gokhberg et al., 2016) etc.

Our analysis of the strengths and weaknesses of the Industry 4.0 concept is presented in Table 1.

Table 1 SWOT analysis matrix of the Industry 4.0 concept (compiled by the authors)

Strengths	Weakness
<p>Political weight, determined by the number of industrial projects in the field of international cooperation and the pace of the industrial revolution</p> <p>Industrial growth, the highest level of business activity, economic development</p> <p>Innovation-information, technological, scientific and educational potential</p> <p>National and world scale of the markets of industrial goods and stock markets</p> <p>Formation of large financial structures</p> <p>Emergence of a large number of paid jobs for new areas and specialties</p> <p>Active information exchange</p> <p>Highly developed information and communication infrastructure</p> <p>High intellectual and cultural level in the field of science and technology, production of unique products in small series</p> <p>Reduction of the cost of works and stocks</p> <p>Improving the level and quality of life in the country</p>	<p>High concentration of capital at enterprises manufacturing high-tech products</p> <p>Limitation of highly skilled workers and capital</p> <p>Very high cost of technology and equipment, their accessibility for large enterprises and state</p> <p>High cost of monitoring and control of a fully integrated and optimized process flow</p>
Opportunities	Threats
<p>Use in the industrial production of digital modelling, autonomous robots, industrial Internet of things, additive production, cloud technologies, augmented reality systems, information security of major industrial systems, etc.</p>	<p>Imperfect system of training and education of the personnel of industrial enterprises</p> <p>Lack of the necessary number of specialists in the field of digital technologies</p> <p>Risks related to the quality, safety of processing and transmission of digital information</p> <p>High cost of transition of industrial enterprises to digital technologies</p>

Our analysis shows the absolute expediency and necessity of the transition of the economy to the concept of Industry 4.0. The result will be industrial growth, economic development, production of competitive products, a transition to a higher standard of living, and an increase in its quality. Due to the limited labour and capital resources, industry has just started to explore the possibilities of new technologies, for example, the aerospace industry. Weaknesses and threats should be taken into account by the state and through the adoption of a number of programmes within the framework of Industry 4.0 concept to stimulate its implementation in certain industries and territories.

To search for possible solutions to the personnel problems of modern Russian industry, one should turn to foreign experience. Consider the specifics of the German vocational education system, thanks to which the country maintains the lowest (after Japan) unemployment rates among the entire population in general, and among young people in particular.

In Germany, the percentage of the population who received an average professional level of education is one of the highest in Europe. Among people aged 25 to 64, it reaches 86%, and 95% of graduates of major schools and gymnasiums plan to graduate from secondary vocational education institutions. More than 50% of the students in the group in question choose a dual training system. Thanks to this system, as many analysts note, Germany had low unemployment among young people even during the crisis of 2005-2009 (OECD, 2014).

A dual system or vocational programme has a strong emphasis on practical training in real working conditions. Training is characterized by an alternation of theoretical and practical blocks lasting one to two weeks, or by allocating a certain number of hours per week for a theoretical and practical course. In both cases, students spend more time working in the partner company in a position appropriate to the profession being studied. Young people get the opportunity to immediately apply the theoretical material studied in practice. In order to be trained under a dual system, a student must conclude an agreement with a partner company, under which the organization pays for his education, provides a place for internship during the whole period (2.5 to 3 years) and pays a scholarship. For his part, at the end of the training course, the graduate undertakes to work out the agreed term in this organization. Training is conducted both on the basis of medium-sized enterprises, and in large concerns. So, for example, you can get average professional training under a dual system from such giants as Volkswagen, REWE, SIEMENS, BMW, etc. Enterprises benefit from the dual system of professional education, as they get qualified young professionals with real knowledge and skills adapted to the firm's requirements, which means that the organization will not have to bear additional costs for the adaptation of new personnel. Most often the dual system is chosen for training in working professions, occupations from the spheres of industry, finance, IT and trade, as well as the social sphere. The dual system is implemented not only in secondary vocational education programmes but also in higher education programmes. About 15% of graduates of gymnasiums and institutions of secondary vocational education in Germany decide to get higher education, 46% of them choose programmes with a practical bias. Consequently, enterprises also have the opportunity to meet the demand for highly skilled personnel by concluding agreements under a dual system. The relative unpopularity of higher education in Germany is conditioned by the fact that

there is enough (and even more welcome) secondary vocational education for successful employment, so graduates do not see the point of spending time on obtaining a bachelor's degree, or the complexity of admission and training. According to statistical data, only 37% of the total number of students enrolled in institutions of higher education graduate (OECD, 2014).

The development of the digital service economy will radically change the labour market and affect all spheres of activity. First of all, the new model of work and employment "Work 4.0" will be distributed, within the framework of which a new type of labour activity, called an on-demand economy, crowdsourcing, etc. will develop. In addition, the level of staff mobility will increase, the technology of off-site work will expand, first of all it will concern the sphere of service and tourist services. The development of information and communication technologies will promote the spread of cross-border (remote) employment.

Due to the fact that the digital economy is based on the ideology of processing large amounts of information, the digital competence of personnel, security, reliability, long-term storage of large amounts of information will be of special importance (Averina & Lavrova, 2018). At enterprises in the sphere of information and communication technologies the share of employees with higher education reaches 74%, which confirms the need for the formation of information and communication skills of personnel for work in the digital economy (Sizova & Khusyainov, 2017). The high processability of all processes in the digital service economy will require the constant improvement of the skills of the personnel, so that the so-called lifelong learning will be in demand. Continuing education and self-development are necessary to maintain high skills of the staff, update knowledge in connection with the acceleration of scientific and technological progress, ensure the competitiveness of staff and advancement on the career ladder. All this acquires special significance and relevance in the conditions of a digital service economy.

In the conditions of a rapid change and in the concepts of scientific and technological progress, the role of masters, superintendents, production managers and other managers of the lower level will change. The results of interviewing superintendents and managers from multinational firms in the UK have shown that they need to replenish their knowledge in the field of electronics and the latest technological processes. Special difficulties arise for managers of the lower level when the equipment fails, when it is difficult for them to understand the causes of the breakdown or deviation of the operation modes of the equipment from the design parameters. Top managers expect from them not only the localization of technical problems and the search for solutions but also the prompt resolution of personnel management problems, first of all, the establishment of mutual understanding and high motivation of employees,

ensuring high labour productivity and high quality of products. All this significantly expands the scope of activity of the lower management personnel, which, in the face of growing competition, plays a key role in reducing the cost of production and increasing the output of high-quality products. There is an increase in the creative side of this staff, weakening control over the actions of qualified professionals, increasing the importance of informal working relationships, organizing mutual assistance and improving skills in diagnosing problems and solving them.

These and other problems of the development of modern management put forward the task of radically updating the concept of vocational training and continuous upgrading of managers at all levels. For example, the Western press reports the results of two studies conducted in the UK, aimed at studying the most important areas of training and skills development for managers of the future. It is noted that now universities, polytechnic universities and colleges of higher education with postgraduate courses give additional knowledge and skills to managers with some experience. In addition, there are private centres and commercial courses for managers and management consultants organizing various courses, seminars and conferences. To this, special courses of continuous management education are added at professional (technical, humanitarian) universities. Among the methods of teaching, modelling, role plays, seminars-conferences etc. are promising, while traditional lectures and discussions take up less and less place in the training courses (McKinsey & Company, 2017). In the future, managers will have to pay more attention to assessing external influences on the organization, integrating the main activity with side effects, employees to strengthen their leading role in all aspects and at all levels of functioning, to be able to inspire workers and mobilize their energy for common tasks.

Conclusions and proposals

Based on the foregoing, it can be concluded that in order for the vocational education system in Russia to produce equivalent results, it is necessary to seriously reform it from the state, but, as it is known, in the near future, in addition to increasing the number of state-funded study places for technical specialties, no major changes are planned. Therefore, Russian industrial organizations should independently start solving problems with a shortage of qualified personnel.

The tasks of improving the system of training and education of personnel in the context of the spread of the concept Industry 4.0:

1. To develop and implement an adequate system of professional competencies as to which basic skills in computer and information

technology are necessary for all professions. It should be flexible: include elements that allow it to modernize and adapt itself; applied practical courses should be based on general digital literacy.

2. To develop and implement a system of constant retraining of teachers. The levels of professional and higher education need to be closely integrated with the leading market companies, which should tell the teachers what skills and competencies they need, as well as provide internship options and feedback on the quality of training. Universities in the regions should serve as a kind of conduit for the transmission of new trends in education in the digital age.
3. To develop and implement new programmes of professional development, as well as mechanisms for assessing their effectiveness. Development of new services that allow people to create their own professional development programmes. New opportunities for professional development and retraining, so that people can acquire new competencies that meet the requirements of the new digital economy. A special emphasis will be placed on overcoming digital illiteracy among the older generation.

Nowadays, a graduate of a competitive university is a specialist performing professional activities at the highest level, deliberately changing and developing him/herself in the labour process, adding a personal creative contribution to the profession that has found a personal purpose that perfectly concentrates the creative activity in the team in the criteria of extreme external action, stimulating in the community enthusiasm for the results of their own professional activities (Averina, Avdeeva, & Perevalova, 2018).

To train people with higher education in positions requiring a high level of qualifications, it is necessary to provide for more theoretical studies. Sufficient theoretical training can be provided both through the programmes of a partner educational institution and at a corporate university. The creation of a corporate university, which, of course, is only available to enterprises with a significant amount of financial resources, will help educate highly qualified specialists in areas relevant to the organization.

In the considered system of training, the experience of the German dual system is used. Namely, the alternation of theoretical and practical exercises is used, with an emphasis on the latter; mentors are involved; practical classes are conducted in real working conditions; a reward depends on the results of the student. In order to avoid a large staff turnover and professional staff stagnation in the future, the development programme for employees (higher education, advanced training and retraining) is added to the proposed system, which is especially important in cases where the employee has only a secondary education. For example, a bachelor's or master's degree programme can be

conducted in absentia for further promotion to a management position, or corporate training programmes are provided to change activities. In general, the stages of the unification of the Russian system of higher education can be represented as follows.

First, to increase the level of "humanitarization" of engineering professions by introducing changes in the curricula of both universities and retraining and advanced training systems for engineering workers. Specific knowledge quickly becomes obsolete. Students should receive skills of self-study and professional development in the course of their subsequent professional activities, and during their studies at the university, the main attention is paid to the study of general theoretical disciplines that develop and systematize independent thinking. The experience of higher schools in a number of countries shows that at least 20% of the time in the curricula of technical universities should be given to public disciplines, primarily Economics, Ecology, Sociology, Psychology, which is necessary for the preparation of fully developed engineers who can work with people and are ready to occupy leading positions in the business world.

Secondly, universities should teach students to work in a team, make joint decisions, be able to communicate with people, clearly state their thoughts. Training in the university should be carried out in groups, so that after graduating to work, graduates could work in integrated teams of engineers and researchers; requirements to engineers for mastering managerial knowledge are being strengthened.

Thirdly, each student needs management skills based on computer science and a foreign language. The development of the digital economy and industry 4.0 implies the expansion of international cooperation of engineering workers, their joint participation in the implementation of projects not only in European countries but also in other continents and intensification of international cooperation in the field of training engineers (exchange of students and teachers of technical universities, development of unified curricula). Selection of highly qualified teachers who could not only take into account the specifics of technical universities but also share the belief in the need for future engineers to study humanitarian subjects.

Fourth, paying attention to communication skills, i.e., teaching students the ability to effectively and correctly express their thoughts (both verbally and in writing) and listening skills (lecturer, interlocutor, etc.); conducting at least three times a year one-day seminars on various and often unexpected questions for students, the task of which is to stimulate creative opportunities and, more importantly, to awaken the students' desire for creativity and non-trivial thinking (in particular, to hold seminars on topics such as "Humanitarian Aspects of Business Activities", "Engineers and Artists", "Adoption of Optimal Solutions",

"Environmental Technology", "Engineering Ethics", "Engineering as a Culture Mirror", "Assessment of Risk Related Situations ", etc.).

Fifth, participation in contests and Olympiads reflecting the awareness of professional choice and the awareness of personal and public significance of professional activity, civic maturity, the potential of intellectual and creative abilities and readiness for its application, psychological preparedness for meeting with professional problems and creativity in extreme conditions .

When comparing foreign higher education systems, it is necessary to take into account the length of the previous period of study, for example, 13-14 years in Italy, the FRG, the Netherlands, the UK; an average of 12 years in Spain, France, Ireland, Portugal, etc. And the duration of the training course during the academic year: it varies from 900-1100 hours in higher engineering schools in France and Spain to 500-700 hours in other EU countries (Shchekin, 2002). A higher education system can be rigid, structured, or more liberal, allowing the student to change the minimum duration of training through intensive training.

Summary

Our SWOT analysis shows the unconditional expediency and necessity of transition of the economy to the concept Industry 4.0. The result will be industrial growth, economic development, the production of competitive products and the transition to a higher standard of living, improving its quality. Due to the limited labour and capital resources, the industry has just started to master the possibilities of new technologies, for example, enterprises of the aerospace industry. Weaknesses and threats should be taken into account by the state and through the adoption of a number of programmes within the framework of the concept Industry 4.0, to stimulate its implementation in certain industries and territories. Obviously, the education system of country needs to be transformed and adapted to meet the needs of the new digital economy. The system of institutions of secondary vocational education is an inefficient source of renewal of personnel of industrial enterprises because, due to the loss of popularity among young people, problems with funding and the material and technical base, it produces fewer and fewer specialists, and their competencies often do not meet the requirements of the labour market. The experience of Germany has shown that among industrial organizations, there is an effective source of personnel attraction provided by the state education system. Due to the popularity of secondary vocational education, which develops from the opportunities that a student receives after graduation (guaranteed employment immediately after graduation, familiar working team and working conditions, decent wages), firms have the opportunity to replenish their staff with young employees with minimal inconvenience and as a result, they do not experience such problems with the reproduction of personnel that exist among Russian industrial enterprises. The stages of reforming the Russian educational system are proposed, which consist in the development and implementation of an adequate and flexible system of professional competences, a

system of continuous retraining of personnel, new programmes for the professional development of teachers and workers. Naturally, the priority should be given to the training of young engineering personnel.

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INFORMATION AND ANALYTICAL SYSTEM FOR OBTAINING AN INTEGRATED ASSESSMENT OF THE QUALITY OF EDUCATIONAL SERVICES FROM THE POSITION OF CONSUMERS

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Abstract. *The aim of the research study is the description of the information analytical system developed by the authors for the formation of an integral linguistic assessment of the quality of educational services from the perspective of three main groups of consumers: employers, students and young professionals. The computation of the integral linguistic quality assessment is based on specially structured information obtained in the course of a voluntary online survey of consumers on specialized quality criteria for groups. A site has been developed for the online survey. The algorithmic support of the information-analytical system is based on the methods SERVQUAL, SWOT-analysis and fuzzy linguistic information processing technologies. The tools of the information analytical system allow us to obtain: linguistic assessments of the quality of services from the perspective of each group of consumers, an integral quality assessment for all consumers and automatically build a SWOT analysis matrix to develop a strategy to improve the quality of the analysed services. In accordance with modern standards of quality management, the approach to quality assessment laid down in the methodology for generating results uses the assumption that the consumer assesses the quality of services based on a comparison of his/her expectations and perceptions of the service during its receipt.*

Keywords: *consumers of educational services, education, quality of educational services, SWOT –analysis.*

Introduction

The aim of the research study is the description of the information analytical system developed by the authors for the formation of an integral linguistic assessment of the quality of educational services from the perspective of three main groups of consumers: employers, students and young professionals.

The problem of assessing the quality of educational services from the perspective of the labour market and the main groups of consumers of these services is an actual topic of theoretical and practical research. The quality level of the educational services provided largely determines the competitiveness and effectiveness of the work of universities. From the position of the labour market, the assessment of the quality of educational services plays the role of active interaction and is a tool for employers to indirectly influence the implementation and orientation of the training of young professionals. A work by E.V. Novatorov (Novatorov, 2001) describes the structuring of educational institutions as organizational systems operating in two interconnected markets: in the educational services market, providing educational programmes as services to students, and in the labour market indirectly through their graduates, who in the process of learning have acquired competencies, characterizing the quality of their workforce for enterprises-employers.

Quality assessment through surveys, questionnaires and other forms of obtaining information from consumers is a means of feedback and allows you to create corrective measures aimed at the practice-oriented development of educational services. There is a lot of research by Russian and foreign scientists in the field of creating tools for processing the results of questioning, structuring, statistical and causal analysis of the information received. In the works by Ermakova & Nikulina (2017), the features of quality assessment are formulated and highlighted from the position of the state, employers and students. On the basis of the results of the questioning of students of Orenburg State University, the following tools were demonstrated: identifying the strengths of the university's activities from the perspective of graduates, obtaining assessments of the compliance of the structure of the curriculum and the content of educational curriculum programmes with graduates, teachers and employers. The survey of graduates and students was conducted in 2016 as part of the annual study "Graduate of OSU", more than 2000 graduates took part, and based on the results of processing the information received, practical recommendations were developed aimed at improving the organization of the educational process. A paper by I.V. Toropov (2016) shows the model of monitoring and assessing the quality of educational services of the university. The most important unit of this model is "Observing and analysing the quality of service", focused on receiving feedback and joining in a single ring of stages "Studying the requirements of interested persons" - "Implementing services" - "Determining the satisfaction of interested persons". In this block, the characteristics of the service implementation are compared with the requirements of quality standards and the development of corrective measures.

The information analytical system proposed in this paper that forms the criterial matrix chart and obtains an integrated, labour market-oriented assessment

of the quality of educational services from the position of the main consumer groups is based on the SERVQUAL method (Toropov, 2016). The SERVQUAL methodology formalizes the idea that quality assessment in the service sector should be based on a consumer's comparison of the level of expectation of quality before consuming a service with the level of quality perception at the moment it is received. The implementation of this technique is reduced to processing specialized questionnaires consisting of a set of assessments presented in a five-point Likert scale according to different criteria for different consumer groups: the level of service expectancy by criterion, the level of quality perception by criterion, the level of importance of a criterion. In contrast to the classical technique SERVQUAL, the technology incorporated in the information analytical system proposed in the work is implemented by means of fuzzy linguistic information processing methods. The use of fuzzy linguistic methods of information processing allows you to significantly expand the set of tools for analysing the results of the survey by simulating consumer responses using linguistic variables and constructing rules for fuzzy inference. The fuzzy inference unit provides an opportunity to take into account various aspects of expert opinion when assessing the degree of inconsistency between consumers' expectation and perception regarding service quality criteria. According to the results of a survey using methods for processing fuzzy linguistic information, a matrix of SWOT analysis is built, which allows you to identify the strengths and weaknesses of the university. The methods of convolution of linguistic criteria provide an opportunity to form various averaging strategies in the development of group opinion and build various structures of the integral index of the quality of educational services.

Description of the methodology, algorithmic support and basic units of work with the information analytical system

We describe the sequential blocks of work with the information analytical system proposed as part of the study, revealing the main aspects of the methodology and algorithmic support embedded in their implementation.

Block 1. Questioning of major consumer groups. A survey questionnaire is created for each group of educational service consumers. The questionnaire includes three blocks (criteria) of questions, reflecting the three main directions of assessing the quality of educational services from the perspective of this class of consumers. For example, the structure of the employer questionnaire is presented in Figure 1 (compiled by the authors).

In the process of answering each question of the questionnaire, three positions are filled in on a one-hundred-point scale: "expectation", "perception", "importance". You can complete the questionnaire procedure on a specially

designed website. A fragment of the website is shown in Figure 2 (compiled by the authors).



Figure 1 Structure of the questionnaire for employers (compiled by the authors)

Answers to each position of each question are modelled as linguistic variables (Parasuraman, Berry, & Zeithaml, 1988) defined by a tuple $\langle K, T, U \rangle$ (K - variable name, $T = \{T_1, T_2, \dots, T_N\}$ - term set of variable values, base set U). Positions "expectation" and "perception" are modelled by linguistic variables K' , K'' that have the same term set, set on a 100-point base scale. The "importance" position is modelled by a linguistic variable V with a term set

$G = \{G_1, G_2, G_3, G_4, G_5\}$ (G_1 - «very low degree of importance», G_2 - «low degree of importance», G_3 - «medium degree of importance», G_4 - «high degree of importance», G_5 - «very high degree of importance»), terms of which are also given on a 100-point base scale. The formation of a fuzzy set of the base scale corresponding to a certain term T_j (G_k) is reduced to the construction of the membership function $\mu_{T_j}(u)$ ($\mu_{G_j}(u)$), the values of which for each $u \in U_i$ represent the degree of correspondence of the number of points $u \in U_i$ to the term T_j .

In the process of constructing functions $\mu_{T_j}(u)$ it is assumed (Borisov, Alekseev, & Krumberg, 1982): the numbering of terms is such that a term with a left-sided carrier has a smaller number; $\mu_{T_1}(u_{\min}) = 1$, $\mu_{T_N}(u_{\max}) = 1$; for any $i(i+1 \leq N)$ $0 < \max_{u \in U} \mu_{T_i \cap T_{i+1}}(u) < 1$; for each number i there $u \in U : \mu_{T_i}(u) = 1$; for anyone $T_i \sum_{u \in U} \mu_{T_i}(u) > 1$.

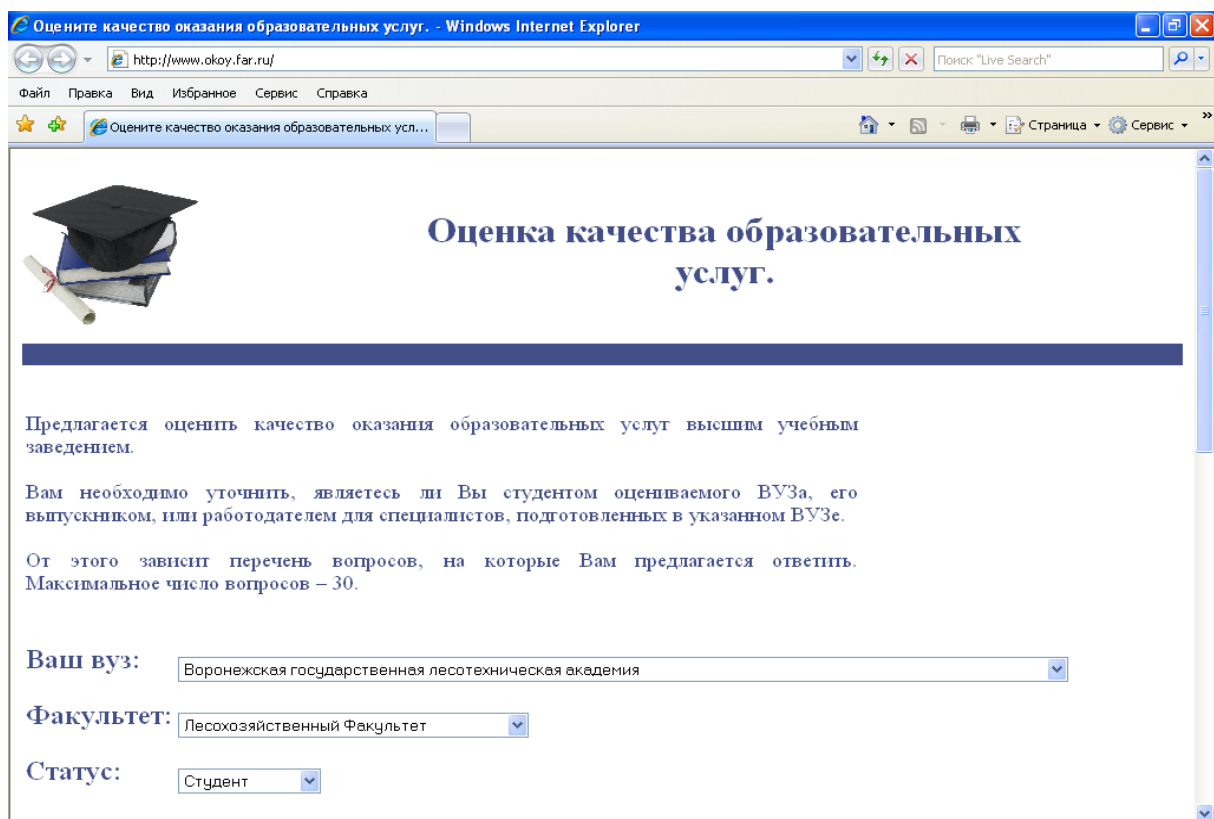


Figure 2 Fragment of the website (compiled by the authors)

Block 2. Formation of rules for obtaining quality assessments on the basis of filled in “waiting”, “perception” positions. Linguistic variables are introduced: Y' - quality by issue, Y - quality by criterion. The term set of these variables has the form $S = \{S_1, S_2, \dots, S_5\}$, where S_1 - «very low quality by criterion», S_2 - «low

quality by criterion», S_3 - « average quality by criterion», S_4 - « high quality by criterion», S_5 - « very high quality by criterion». As a base set for constructing terms, a set is used $U = \{1,2,\dots,100\}$. Membership functions $\mu_{S_j}(u)$ coincide with the corresponding membership functions $\mu_{G_j}(u)$ of the terms G_j of the linguistic variable "importance".

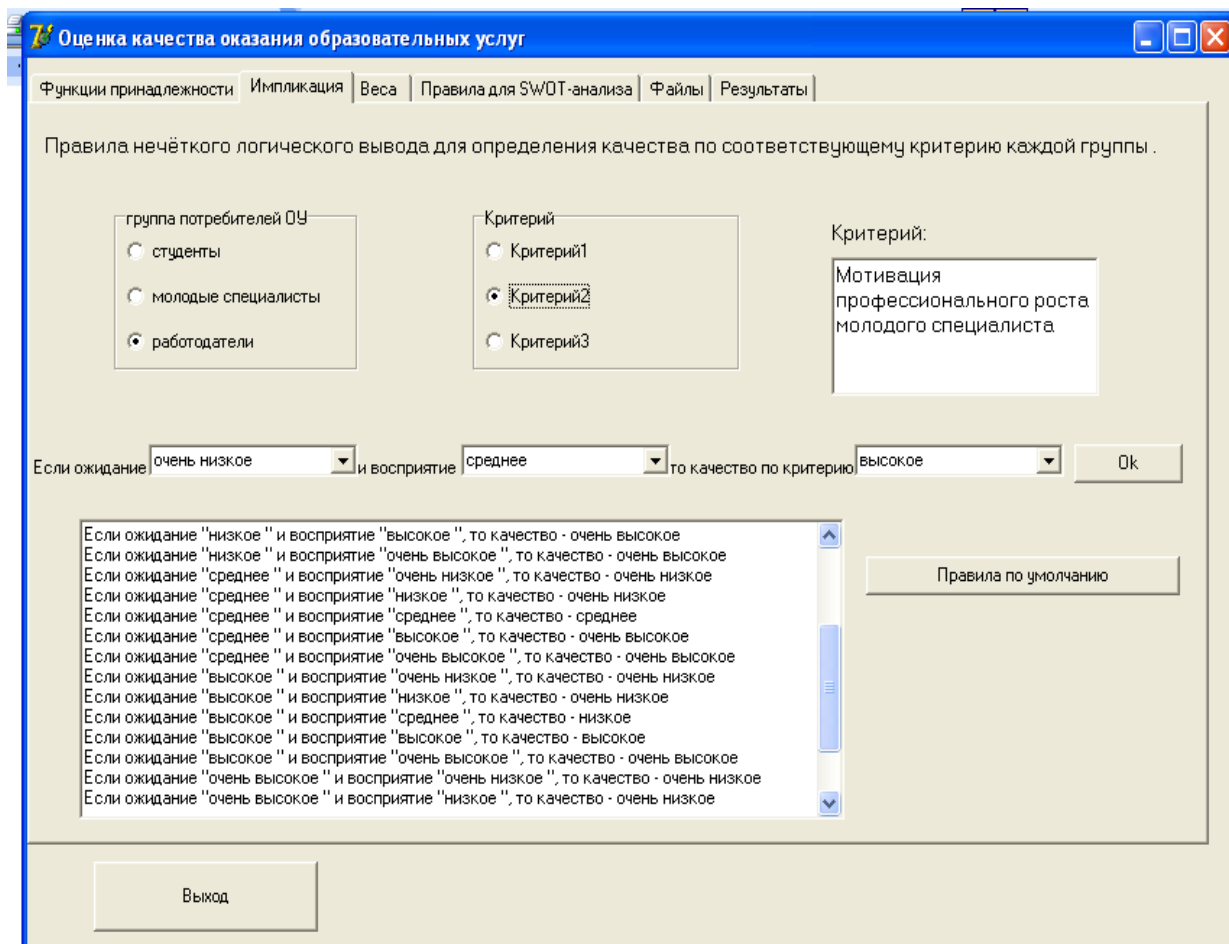


Figure 3 Fragment of the work of the information analytical system for the input of fuzzy inference rules (compiled by the authors)

The device, based on the rules of fuzzy inference (Azarnova, Kretinina, & Stolbovskaya, 2008), allows for each question of the completed questionnaires to display linguistic variables K' , K'' ("expectation", "perception") in the resulting quality variable Y' and to get a point estimate of the resulting variable. For each criterion, a set of rules of the form is built by an expert « D_k : if $K'=T_j$ and $K''=T_i$ then $Y = S_l$ ». Processing the rules and obtaining point estimates is carried out using special methods for implementing fuzzy implication. The information analytical system under consideration uses a fuzzy implication of Lukasevich (Parasuraman

et al., 1988). As a result of working with the rules, a point numerical quality assessment is formed $E \in [1,100]$. To go to the linguistic term of the variable "quality", a simple search is used, the essence of which is to calculate the measure of membership $\mu_{S_i}(E)$ for all S_i and select the term S^* with the largest measure of membership. Figure 3 shows a fragment of the work of the system for experts to draw up rules for fuzzy inference.

Block 3. Formation of a generalized quality assessment of the criteria (blocks of questions) for each questionnaire. To construct a point quality estimate for each criterion, an additive linear convolution of point estimates is used for questions related to this criterion. The weights w_i used in the formation of convolution are calculated by an expert and reflect the contribution of the question to the formation of the criterion under consideration. After receiving a point estimate using the simple enumeration method, the system forms the corresponding term of "quality" according to the criterion Y .

Block 3. Formation by each criterion of each group of consumers averaged over the totality of questionnaires indicators of "importance" V and "quality" Q . The system uses LOWA - the ordinal averaging (aggregation) operator to calculate averaged indicators (Borisov, Alekseev, & Merkurieva, 1989):

$$\Phi_W(L_1, \dots, L_n) = C^n \{(w_k, P_k), k = 1, \dots, n\} = w_1 \otimes P_1 \oplus C^{n-1} \{(\beta_h, P_h), h = 2, \dots, n\}, \quad (1)$$

where $W = (w_1, \dots, w_n)$ - weights vector ($w_i \in [0,1], \sum_{i=1}^n w_i = 1$), $P = (P_1, \dots, P_n)$ - ordered

by non-ascending linguistic terms vector $L = (L_1, \dots, L_n)$, $\beta_h = \frac{w_h}{\sum_{k=2}^n w_k}$, $h = 2, \dots, n$, C^n -

combination of n terms, the calculation of which is reduced to the sequential convolution of two terms by the formula:

$$C^2 \{w_i, P_i, i = 1, 2\} = w_1 \otimes F_j \oplus (1 - w_1)F_i = F_k, \quad (2)$$

$$j \geq i, \quad P_1 = F_j, P_2 = F_i, \quad k = \min\{n, i + \text{round}(w_1(j - i))\}.$$

The principle of averaging using the linguistic OWA-operator is determined by the choice of the weights vector $W = (w_1, \dots, w_n)$. The weights vector $W = (w_1, \dots, w_n)$ can define the following averaging principles (Azarnova, Kretinina, & Stolbovskaya, 2008): the average estimate should not be higher than the lowest one of collapsible estimates — the conjunctive strategy; the averaged estimate coincides with the highest one of collapsed estimates - the disjunctive strategy;

the average score implements a compromise between collapsible estimates - the compromise strategy.

The disjunctive strategy corresponds to the weights vector $W = (1,0,0,\dots,0)$, conjunctive - $W = (0,0,0,\dots,0,1)$, compromise - $W = \left(\frac{1}{n}, \frac{1}{n}, \frac{1}{n}, \dots, \frac{1}{n}, \frac{1}{n}\right)$ Along with these "pure" strategies, there are hybrid strategies, the functional representation of which is given by the parametric family of operators. For arbitrary use when aggregating the weight vector $W = (w_1, \dots, w_n)$, the function

$$orness(W) = \frac{1}{n-1} \sum_{i=1}^n (n-i)w_i \quad (3)$$

characterizes a measure of proximity to a disjunctive strategy, and the value $andness(W) = 1 - orness(W)$ characterizes the measure of proximity to the conjunctive strategy. If value $orness(W) > 0.5$, then the corresponding OWA operator is called quasi-disjunction. If value $andness(W) < 0.5$, then - quasi-disjunction. Function values

$$tradeoff(W) = 1 - \sqrt{n \sum_{i=1}^n \frac{\left(w_i - \frac{1}{n}\right)^2}{n-1}}, \quad (4)$$

characterize the compensation properties of aggregation operators, the closer the value $tradeoff(W)$ to 1, the higher the compensation properties of the operator. Weights vectors can be formed using linguistic quantification functions $Q: [0,1] \rightarrow [0,1]$, $Q(0) = 0$, $Q(1) = 1$. The community quantifier is given by the quantification function:

$$Q_{\forall}(x) = \begin{cases} 0, & \text{if } 0 \leq x < 1 \\ 1, & \text{if } x = 1 \end{cases}, \quad (5)$$

quantifier of existence:

$$Q_{\exists}(x) = \begin{cases} 1, & \text{if } 0 < x \leq 1 \\ 0, & \text{if } x = 0 \end{cases}, \quad (6)$$

quantifier "at least m ($m \in Z_+$)»:

$$Q(x) = \begin{cases} \frac{x}{1/m}, & \text{if } x < \frac{1}{m} \\ 1, & \text{if } x \geq \frac{1}{m} \end{cases}, \quad (7)$$

quantifier "most"

$$Q(x) = \begin{cases} 0, & \text{if } x < a \\ \frac{x-a}{b-a}, & \text{if } a \leq x < b \\ 1, & \text{if } x \geq b \end{cases}. \quad (8)$$

With the help of quantification functions, the weights of linguistic OWA operators Φ_Q that implement the corresponding properties are calculated as follows:

$$w_1 = Q\left(\frac{1}{n}\right), \quad w_i = Q\left(\frac{i}{n}\right) - Q\left(\frac{i-1}{n}\right), \quad (i = \overline{1, n}). \quad (9)$$

Block 4. Implementation of the SWOT-analysis (Uchitel' & Uchitel, 2014) based on the results of the calculation of the averaged estimates of "quality" Q_i and "importance" V_i for all criteria of all consumer groups. Experts form the rules, on the basis of which from a variety of criteria are selected subsets that can be attributed to the strengths, weaknesses, as well as opportunities and threats for the development of services. The rules have the form "if $Q_i = (\geq, \leq) S_k$ [and $V_i = (\geq, \leq) G_m$]», then the criterion is a strong point (weak point, opportunity or threat). Figure 4 shows the results of a SWOT analysis for a demo.

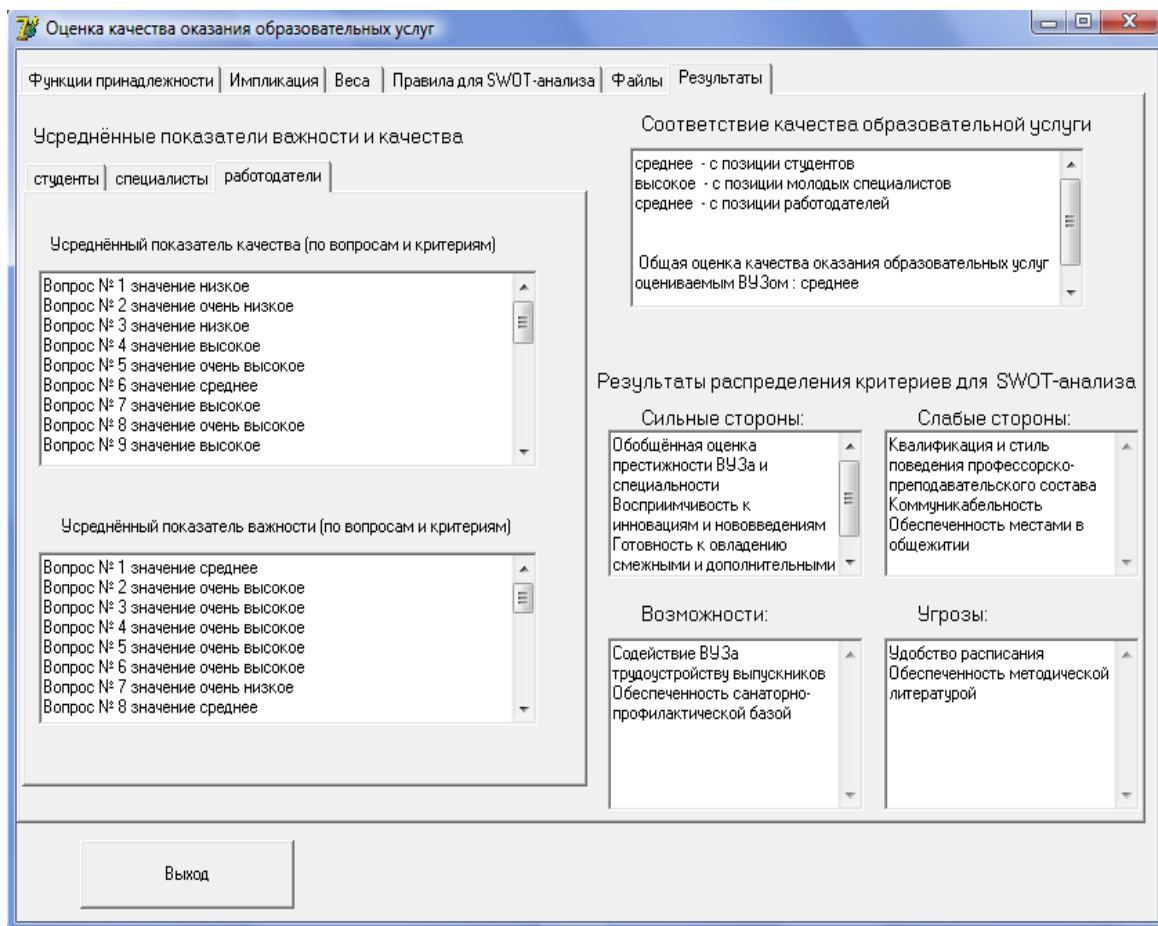


Figure 4 SWOT analysis results (compiled by the authors)

Block 5. Formation of generalized quality assessments for consumer groups and in general in the educational direction. Generalized assessments are built on the basis of pairs of vectors for averaged linguistic assessments of the educational service and their average importance according to criteria from students, young professionals and employers: $A_1 = (a_1^1, a_2^1, \dots, a_{n_1}^1)$, $W_1 = (w_1^1, w_2^1, \dots, w_{n_1}^1)$, $A_2 = (a_1^2, a_2^2, \dots, a_{n_2}^2)$, $W_2 = (w_1^2, w_2^2, \dots, w_{n_2}^2)$, $A_3 = (a_1^3, a_2^3, \dots, a_{n_3}^3)$, $W_3 = (w_1^3, w_2^3, \dots, w_{n_3}^3)$.

Three linguistic variables are introduced Z_1, Z_2, Z_3 - integral assessments of the quality of educational services from the perspective of students, young professionals and employers, respectively, and the linguistic variable Z - a general integral assessment of the quality of educational services.

The term set of entered variables is $Y = \{H_1, H_2, \dots, H_5\}$, H_1 - « very low quality service », H_2 - « low quality service », H_3 - « average quality of service », H_4 - « high quality services », H_5 - « very high quality service ».

The values of the resulting integral linguistic variables are formed using the linguistic MAX-operator (LMAX)

$$LMAX_w(A) = \max_i \min\{w_i, a_i\} \quad (10)$$

or linguistic MIN operator (LMIN)

$$LMIN_w(A) = \min_i \max\{Neg(w_i), a_i\}, \quad (11)$$

where Neg – denial operation on a linguistic scale $H = \{H_i\}_{i=0,5}$ ($Neg(H_i) = H_{5-i}$). For example, when using the linguistic MAX operator, we get the following integral variables:

$$Z_1 = \max_{i=1, n_1} \min\{w_i^1, a_i^1\}; \quad Z_2 = \max_{i=1, n_2} \min\{w_i^2, a_i^2\}; \quad Z_3 = \max_{i=1, n_3} \min\{w_i^3, a_i^3\}.$$

To obtain a general integral assessment of the quality of educational services, classical linguistic weighted multiplicative and additive convolutions (Borisov et al., 1982) are used, associated with the numerical vector of weights W characterizing the importance of information sources.

Conclusion

The quality of educational services has a significant impact on the efficiency of the labour market, therefore, information systems and technologies that implement the tools for obtaining, structuring and providing information on the quality of educational services to subjects of the educational market and the labour

market are relevant. This paper presents an information analytical system for assessing the quality of educational services from the perspective of the main consumer groups, based on fuzzy algorithms for managing the local monitoring process and evaluating the quality of educational services from the perspective of three consumer groups: students, young professionals and employers. A specialized technology has been implemented for organizing an Internet site for conducting a consumer survey of services and processing the results of the survey by using linguistic group assessment methods. The proposed technology is a modification of the SERVQUAL method. The use of a fuzzy approach significantly expands the possibilities of structuring and averaging group survey information.

Summary

This paper presents an information analytical system for assessing the quality of educational services from the perspective of the main consumer groups, based on fuzzy algorithms for managing the local monitoring process and evaluating the quality of educational services from the perspective of three consumer groups: students, young professionals and employers. The basis of the developed information analytical system is a linguistic algorithm aimed at the formation of the estimated characteristics of the quality of educational services. The algorithm is based on the SERVQUAL method, in accordance with which the score assessment of quality in the service sector should be based on the customer's comparison of his/her expectations of quality before consuming the service with the perception of quality at the time of its receipt. The information base, on the basis of which private and integrated estimates are formed, consists of specially developed questionnaires of students, young specialists and employers. Fuzzy linguistic information processing tools allow you to expand the range of tools for analysing the results of the survey, use a fuzzy inference machine that models the process of generating conclusions based on estimates of expectations, perception and importance for each item of the questionnaire of each group of respondents, build different strategies for aggregating group information.

In the process of working with the information analytical system, the researcher receives: a linguistic quality assessment from the position of each consumer for each evaluation criterion; a linguistic assessment of the quality and importance for each criterion of each group of consumers; integral linguistic assessments of the quality of each consumer group, an integral linguistic evaluation from the position of all consumers; on the basis of special logical rules, a matrix of SWOT-analysis to highlight strengths, weaknesses, opportunities and threats to the educational direction is formed. The results of the algorithm depend on: the specification of linguistic variables expectation, perception and importance for the evaluation criteria; the rules used for fuzzy inference; the chosen aggregation strategy embedded in the OWA aggregation operator when receiving a group assessment of the quality and importance of each criterion for each group of consumers.

It is intended to develop the algorithmic support of the information analytical system, which will allow the settings of the calculations (membership function of terms, group aggregation strategy) to be selected based on the analysis of the statistical distribution of survey data. In particular, it is planned to build confidence factors for high and low quality estimates obtained for individual respondents; also, when developing integrated estimates for each group of respondents, instead of LMAX and LMIN operators, it is planned to build special linguistic scales for translating quality values taking into account the importance of the criterion measured on a certain universal scale.

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MECHANISM OF SUPPORTING THE ECONOMIC BALANCE IN THE SPHERE OF HOUSING AND COMMUNAL SERVICES

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Abstract. *Housing and communal services is one of the leading branches of the municipal economy at the present time, the quality of life of the population directly depends on the effectiveness of its development. Despite the high level of development of many socio-economic entities in the Russian Federation, in the housing and public utilities sector today there is no uniform effective methodology for assessing ongoing activities. Creating a universal methodology for assessing regional authorities in the implementation of measures to reform housing and communal services can be an important element in the information management of the industry. The scientific paper uses mathematical tools to build effective mechanisms for the functioning of programmes for housing and public utilities.*

The purpose of this study is a theoretical justification, the creation of an effective mechanism to maintain the economic balance in the housing sector.

In this case, effective monitoring of management companies is considered as an important element of the economic mechanism of management of housing and public utilities, which will improve the quality of public services and ensure the level of satisfaction of the population.

Keywords: *classification, construction, mathematical analysis, municipal economy*

Introduction

In recent years, the prevalence of administrative methods of managing the utilities industry over economic ones has been noticeable. Due to the underdeveloped system of contractual relations, management companies enter into agreements in which there are no obligations for the executive authority to provide financing. From this fall's the stability of income and debt is growing, there is a delay in payments, management companies are trying to get away from the application of sanctions. So, one problem leads to another, which leads to contradictions of interests of consumers and the municipality.

One of the main directions of development of housing and communal services related to the competences and capabilities of municipal authorities is demonopolization and the development of competition in the field of housing and communal services. The main principle of state regulation in this case should be to maintain a balance of the economic interest of the subjects of these relations and the state.

In this case, the aim of the study is a theoretical justification, the creation of an effective mechanism to maintain the economic balance in the housing sector.

The main methods used are system-functional analysis, empirical materials on the state and functioning of the housing and communal services of Russia, economic analysis related to mathematical and statistical calculations.

This paper proposes the establishment and improvement of real contractual relations in order to develop competition in the housing sector. Within the framework of this agreement, five integrated indicators were defined, on the basis of which it is possible to assess the performance of the management company.

The paper also proposes the introduction of a set of the most important indicators for assessing the performance of management companies and monitoring. Thus, the system of criteria acquires the most integral character. The determination of the weight of each indicator and the selection of the most significant of the aggregate is carried out using statistical methods for analyzing expert assessments.

Problem analysis and justification of the prospects for the development of housing and communal services in municipalities

Socio-economic problems of housing and communal services, due to its internal market transformations, as well as development strategy issues are disclosed in the works of Yu.P. Alekseev (Alekseev, 2006), A.G. Voronin (Voronin, 1997), Yu.S. Popkov (Popkov, 1979), L.A. Velikhov (Velikhov, 1996).

Analysis of the development of housing and communal services revealed the need to solve the following major tasks and problems:

- social protection of the population in the implementation of housing and communal services reform reducing the standard of living;
- consequences of unsatisfactory work of public utilities;
- problem related to the interests of the participants in the housing and communal sphere;
- deterioration of housing and engineering communications.

The situation in the market is exacerbated by shortcomings and inconsistencies in the regulatory documents that housing and utilities specialists work with.

The problem of the formation of contractual relations between public utilities, management companies and the population in municipalities pulls along a number of other problems associated with the formation of the tax base of enterprises and the pricing system.

During the period of reforming the housing and utilities sector, the controversial nature of the exercise of state functions was most clearly manifested, reinforced by the impact of systemic crisis trends in the economy. Attempts to solve one problem aggravate the development of another problem, the economic support of one of the participants in the housing and utilities sector causes an increase in discontent on the part of others (Primak, 2007).

Under these conditions, the main principle of state regulation of the development of housing and communal services is to maintain a balance of economic interests of all market participants when all economic actors in the housing sector: the population, utilities, repair and maintenance enterprises, the management company, the state determine equal responsibility for solving many problems in this area.

Currently, at the federal level, the Rosstat, the Ministry of Regional Development of Russia and the Federal Agency for Construction and Housing and Public Utilities are monitoring the state of the housing and utilities complex (Monitoring volumes..., 2019). The information collected is reflected in the Russian Statistical Yearbook (Main indicators..., 2017).

The analysis of the content of statistical reporting forms allows us to conclude that there are informational deficiencies in the state statistics service, such as the lack of statistics on the number of homeowners' partnerships at the federal and regional levels, as well as the need for additional processing of the data in order to improve the performance indicators of the housing and utilities reform. Consequently, the resulting set of indicators is a little close to the practice of management and requires perfection.

Mechanism of supporting the economic balance in the sphere of housing and communal services

The object of the research is housing and communal services of Russian cities. The subject of research - an assessment of the effectiveness of the management companies.

The solution to the problem is to create such a management structure for housing and communal services in the municipality, which would be strictly based on real contractual relations, while attracting organizations of various forms of ownership on a competitive basis.

As part of the improvement of contractual relations, it is necessary to conclude a new contract for the management of the housing stock between management companies and executive authorities.

The contract between the Municipality and private operators (management companies) will be a document whose structure reflects its main provisions. The contract consists of several sections, presented in Table 1.

Each section contains a description of the problems and risks taken into account when forming the contract.

The predicted results of the introduction of such a contract are as follows:

- the creation of favourable conditions for attracting new organizations in the sphere of housing stock management;
- reduction of interventions by the administration, priority use of economic regulation methods;
- ability to control the quality of services provided;
- increasing the level of economic interest in managing the housing stock and providing quality services;
- ability to regulate the cost of services depending on their quality.

Table 1 Content of the agreement between the Municipality and the Management Company (compiled by the authors on the basis of scientific research on selected topics)

No. p/p	Section Name
1	Objectives of the Agreement
2	Contract time
3	Service zone
4	Fixed assets
5	Obligations of the Company in raising a loan
6	Contractual relations with consumers
7	Purchase of goods and services by the Company
8	Investment activity of the Company
9	Tariff regulation
10	Monitoring and reporting
11	Financial responsibility
12	Force majeure
13	Dispute resolution
14	Terms of termination of the Agreement

All this will contribute to increasing the level of profitability of housing and utilities organizations and the establishment of optimal market relations. Improving contractual relationships also affects the system of accounts for various energy resources, which will reduce the level of debt and increase the responsibility of managing organizations.

Research results

Within the framework of this agreement, five complex indicators were identified, on the basis of which it is possible to carry out an assessment of the performance of the management company:

- 1) quality of services provided;
- 2) amount of work performed by the management company;
- 3) cost structure of the management company for the maintenance of housing and documents supporting these expenses;
- 4) collection of payments for organizations;
- 5) organization of the management company.

Each of these indicators is divided into some sub-indicators, according to which monitoring and evaluation of the management company's activities is possible.

Increasing the level of competition is now an impetus to the improvement and development of new technologies, information systems, allowing having reliable and reliable information. Due to this, it is possible to optimize costs and prevent accidents. In addition, the most effective management factor in the housing sector is the availability of adequate feedback to controlled objects. In reality, this can be achieved by creating a market monitoring at the municipal level.

Thus, it is advisable to create an effective system for monitoring and evaluating the activities of management companies.

The proposed algorithm for assessing the performance of the management company for the indicators we considered using indicators is presented in Fig.1.

The evaluation system of the management company includes five integrated indicators identified previously. Each of these indicators is divided into some sub-indicators, which will be evaluated.

Recommended indicators for the organization of monitoring and evaluation of the management company:

1. The number of complaints of the population to local authorities on the unsatisfactory quality of housing and communal services per 100 serviced personal accounts.
2. The dynamics of complaints to local authorities.
3. The number of repeated complaints to management companies and local governments on the unsatisfactory quality of housing and communal services.
4. The number of accidents on the housing stock per quarter per 1000 square meters of the serviced area.
5. The scope of maintenance work per 1000 square meters of the serviced area.

6. The number of unfulfilled orders of regulatory authorities.
7. The collection of payments of the population, %.
8. The share of the wage fund in the cost of maintaining the housing stock, %.
9. The share of administrative and management costs in the cost of maintaining the housing stock, %.
10. The volume of accounts payable per 1000 square meters of the serviced area.
11. The dynamics of accounts payable.
12. The share of housing stock, equipped with house-floor commercial water and heat metering devices, %
13. Training and certification of staff.

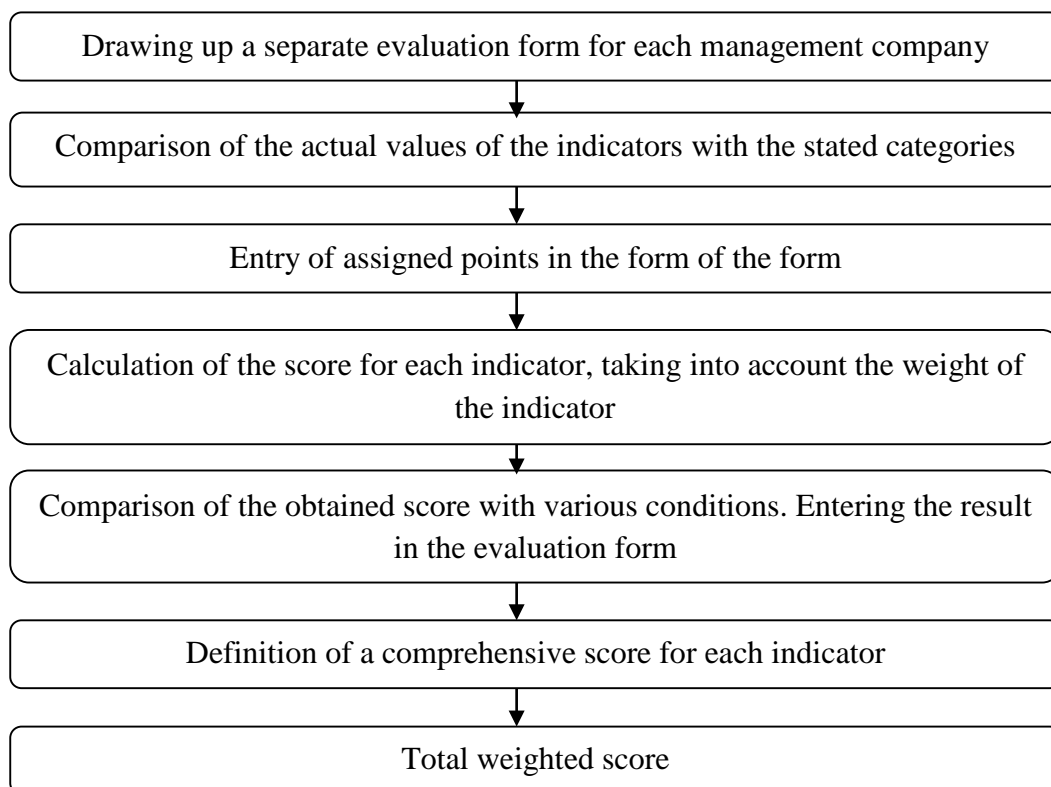


Figure 1 Algorithm for assessing the performance of the management company according to the declared indicators (compiled by the authors on the basis of scientific research on selected topics)

The algorithm for evaluating the activities of the management company is as follows:

1. Drawing up an evaluation form for each management company.
2. Comparison of the actual values of the indicators with the stated categories.

To conduct a quarterly comparative assessment of the management company’s activities, a scale will be used, providing for the distribution of the obtained indicator values according to three categories with the assignment of a score for each category:

- High - 3 points;
 - Medium - 2 points;
 - Low - 1 point.
3. After determining the grade for each QM, the results are recorded in the relevant documents. Maximum score - 3 points.
 4. Calculation of the score for each indicator based on the weight of formula 1:

$$x_{bi} = x_i \times k_i, \tag{1}$$

where x_i - assessment,

k_i - indicator weight reflecting the significance of indicators

Table 2 defines the weight of each indicator by an expert method. The sum of all weights of indicators is 1. The degree of influence of factors is estimated on a five-point scale, as the most common and simple to choose and understand, where:

- 1 - factor is not important,
- 2 - weak influence of a factor,
- 3 - mean factor,
- 4 - significant factor influence,
- 5 - strong influence of the factor on the building organization.

Table 2 Results of the expert survey (compiled by the authors on the basis of an expert survey)

Factors	Expert estimates														Average	Weight
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1	5	5	5	5	5	4	5	5	5	4	5	5	5	5	4.9	0.09
2	3	3	3	2	3	4	4	3	3	3	3	3	4	3	3.1	0.06
3	5	5	5	5	4	4	5	5	5	4	5	4	5	5	4.6	0.08
4	4	4	4	5	4	4	3	4	4	4	4	3	4	4	4.0	0.07
5	3	4	3	4	4	3	3	3	3	3	3	3	3	3	3.15	0.06
6	4	4	4	4	5	5	4	4	5	4	4	4	4	5	4.4	0.08
7	5	4	4	5	5	5	4	4	5	4	4	4	4	4	4.5	0.08
8	5	4	5	4	5	4	5	4	4	5	4	4	5	4	4.5	0.08
9	5	5	5	5	5	5	5	5	4	4	5	5	5	4	4.8	0.09
10	4	4	5	4	4	5	4	4	4	4	5	4	4	4	4.2	0.07
11	2	2	3	3	2	1	1	3	2	2	2	1	2	3	2.15	0.05
12	5	5	5	4	5	5	5	5	5	4	5	5	4	5	4.7	0.09
13	5	5	5	5	4	4	5	5	5	4	5	5	4	5	4.4	0.08
Total:															53.4	1

The calculation of the average estimate for each of the factors is carried out according to formula 2:

$$a_j = \frac{\sum_{i=1}^p a_{ij}}{p}, \quad (2)$$

where $\sum_{i=1}^p a_{ij}$ - the sum of the elements of each line,
 p - number of line items

We will identify the significance of each indicator / factor by assigning it a weighting factor. The average rating of each element is divided by the sum of the average ratings by formula 3:

$$K = \frac{a_j}{\sum_{j=1}^n a_j}, \quad (3)$$

where a_i - average grade,
 $\sum_{j=1}^n a_j$ - amount of average ratings

Position in the competition of external factors is defined as:

- strong (in the range of 3.5–5 points),
- average (2.5–3.5),
- weak (less than 2.5 points).

For us, the most important are those that have a strong rating ranging from 3.5 to 5.0. According to the results of the assessments, we make the selection and ranking of the most important factors (average rating is 3.5 to 5).

Based on the analysis of the data obtained in Table 2, the largest weighting factor corresponds to the following factors: 1, 3, 6, 7, 8, 9, 12, 13.

Next, you need to check the results of the assessment by experts for consistency, that is, whether you should trust our survey (Bekirova & Trifonova, 2016). To do this, we calculate the coefficient of concordance of Kendall by formula 4:

$$W = \frac{12 \sum_{j=1}^m d_j^2}{n^2(m^3 - m) - n \sum_{i=1}^n T_i}, \quad (4)$$

where d_j - deviations of the sum of ranks in the j -th direction from the average value of the sum of ranks,
 T_i - equal rank indicator,

t_i - number of equal ranks in i- th group

The coefficient of concordance shows the degree of consistency of expert opinions. The value of W ranges from 0 to 1.

Kendall's coefficient of concordance is:

$$W = \frac{12 \times 19578.11}{14^2(13^2 - 13) - 14 \times 6752} = \frac{191737.3}{(535276) - 94528} = 0.59.$$

The obtained value indicates a high degree of consistency of expert opinions.

For the new ranks, the sum of related ranks was calculated, presented in Table 3.

The average sum of all object ranks is:

$$\bar{S} = \frac{1119.25}{13} = 86.1.$$

The conclusion about the significance of the Kendall coefficient of concordance is made using the Pearson approval criterion, if the condition

$$x_{clct}^2 > x_{tbl}^2.$$

We use formula 5 and carry out the calculation:

$$x_{clct}^2 = \frac{12 \sum d_j^2}{n \times m \times (m + 1) - \frac{1}{m - 1} \times \sum_{j=1}^n T_j}, \tag{5}$$

$$x_{clct}^2 = \frac{12 \times 19578.11}{14 \times 13 \times (13 + 1) - \frac{1}{13 - 1} \times 6752} = \frac{191737.3}{2184 - 562,6} = 118,2^2.$$

Table 3 Calculating the sum of related ranks
(compiled by the authors on the basis of an expert survey)

Expert	Related ranks	Sum
1	$(7^3-7)+(3^3-3)+(2^3-2)=336+24+6$	366
2	$(5^3-5)+(6^3-6)=120+210$	330
3	$(7^3-7)+(3^3-3)+(3^3-3)=336+24+24$	384
4	$(6^3-6)+(5^3-5)=210+120$	330
5	$(6^3-6)+(5^3-5)=210+120$	330
6	$(5^3-5)+(6^3-6)$	330
7	$(6^3-6)+(4^3-4)+(2^3-2)=210+60+6$	276
8	$(5^3-5)+(5^3-3)+(3^3-3)=120+120+24$	264
9	$(6^3-6)+(4^3-4)+(2^3-2)=210+60+6$	276
10	$(9^3-9)+(2^3-2)=720+6$	726
11	$(6^3-6)+(4^3-4)+(2^3-2)=210+60+6$	276
12	$(4^3-4)+(5^3-5)+(3^3-3)=60+120+24$	204
13	$(4^3-4)+(7^3-7)=60+336$	396
14	$(5^3-5)+(5^3-5)+(3^3-3)=120+120+24$	264
Total		6752

Next, you need to calculate the number of degrees of freedom. In this case, it is equal to the number of compared objects minus one (13-1=12).

The probability will be equal to 0.05%. The value in the table is 21.026. We get $x_{\text{clct}}^2 > x_{\text{tbl}}^2$. ($118.2^2 > 21.026^2$).

Having the weight of each factor in their total population and a group of the most significant factors, we proceed to the next stage of determining the indicator score, taking into account the weight.

5. For each indicator, a score is determined based on the weight and correction factors used to compare the performance of managing organizations operating in the housing stock, depending on the conditions: K1 - coefficient characterizing the level of depreciation of houses; K2 - coefficient characterizing the level of home improvement; K3 - budget financing ratio.
6. Then, a comprehensive score of 5 groups of indicators specified earlier, taking into account the weight and coefficients of indicators according to formula 6:

$$B_j = \sum X_{bi}, \quad (6)$$

where B_j - comprehensive score for the relevant group (j=1, 2, 3),

x_{bi} - score based on weight

7. The total score is defined as the sum of points for all indicators, taking into account the weight and coefficients.

Thus, this algorithm allows obtaining a comprehensive assessment of the performance of management companies.

Conclusion

The identified criteria provide an opportunity to monitor and have reliable data on the dynamics of the development of the competitive environment of the housing and communal services market in municipalities. Effective monitoring of companies is an important tool in solving a number of problems with regards to the objectivity of information and making management decisions.

Thus, monitoring the activities of management companies is an effective way to assess the quality of the maintenance of the housing stock of municipalities, which will solve the following problems:

- monitoring the fulfilment of the obligations by the management company;
- tracking of relevant indicators of management companies at the moment;

- obtaining by owners of operational information about the state of housing and communal services;
- early and timely correction of deficiencies and improvement of the quality of services provided by management companies.

The recommended theory of using a monitoring system can be used in local government at the city or city district level.

At the level of municipalities, monitoring will be an effective tool in obtaining reliable information and further adoption of administrative management decisions in the municipal sphere. On the basis of the identified indicators, it will be possible to make choices better in their field of management companies to work with consumers and provide quality services. It will also help the public to independently choose the desired capital for their home.

The monitoring systems used in practice are methodological tools that have important characteristics and properties: completeness, flexibility, measurability, clarity and ease of use.

Summary

The scientific paper uses mathematical tools to build effective mechanisms for the functioning of programmes for housing and public utilities, aimed at maintaining the balance of economic interests of the subjects of the relationship and the formation of a competitive environment.

As part of the improvement of contractual relations, it is necessary to conclude a new contract for the management of the housing stock between management companies and executive authorities.

Within the framework of this agreement, five complex indicators were identified, on the basis of which it is possible to carry out an assessment of the performance of the management company.

Each of these indicators is divided into some sub-indicators, according to which monitoring and evaluation of the management company's activities is possible.

Ultimately, conducting competent and effective monitoring of the activities of management companies will promote the development of competition in this area and improve the use of financial resources. At the level of municipalities, monitoring will be an effective tool in obtaining reliable information and further adoption of administrative management decisions in the municipal sector.

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**СОЦИАЛЬНО-ТРУДОВЫЕ ОТНОШЕНИЯ:
УПРАВЛЕНИЕ СТРУКТУРОЙ В ПРОЦЕДУРАХ
ВНЕДРЕНИЯ ИННОВАЦИОННЫХ ИЗМЕНЕНИЙ**
*Social and Labour Relations: Managing the Structure in
Implementing Innovative Changes*

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Abstract. *Implementing innovation programmes often encounters employee resistance to change. The paper provides evidence that the essential characteristics of the causes for such resistance lie in the contents and structure of the social and labour relations. They manifest themselves as opportunism at work. The authors believe that this problem can be solved by developing K. Lewin's and E. Schein's change management models. While implementing innovative programmes by using one of these models, at the opening stage, by the procedure developed by the authors, it is suggested to do research aimed at identifying the contents of the social and labour relations that have been formed within an organisation in order to reveal the quantitative measure of opportunistic behaviour of personnel in their structure and their further correcting towards decreasing the potential of employee resistance to change. For this purpose, the authors developed five scenarios and tools for gathering data through an employee survey in the environment where implementing innovative changes is expected. The findings are supposed to be presented in the form of M. Porter's diagram, on the axes of which are indicated the types of social and labour relations; it perfectly reveals problem areas in the general structure of the social and labour relations. It is the managerial impact on them that allows a decrease in employee opportunistic potential. The evaluation of the methodical approaches, which the authors made in health care institutions, has shown that implementing innovation changes encounters much less employee resistance. Using this conceptual model of change management oriented towards changes in the structure of the social and labour relations allows an increase in efficiency and effectiveness of implementing innovative changes in organizations.*

Keywords: *change management, opportunism at work, social and labour relations.*

Введение *Introduction*

Со времен движения луддитов, которое зародилось в XVIII в., а пик пришелся на 1811-13 гг., менеджеры и ученые развитых в технологическом отношении стран постоянно отмечают такое негативное явление в управлении предприятиями, как сопротивление персонала внедрению изменений. В настоящее время реакция работников на инновации, естественно, не похожа на ту, которая имела место быть в Англии в начале XIX в. Более того, далеко не все работники современных предприятий с таким негативом воспринимают внедряемые новшества инновационных программ. Но, вместе с тем, сопротивление персонала внедрению инновационных изменений, в более или менее очевидных формах, имеет место быть и в современных организациях, практически, всех сфер хозяйственной, образовательной, культурной и иной деятельности людей, и практически во всех странах мира. Причем, сопротивление зачастую носит скрытый оппортунистический характер. В явном виде оно проявляется в снижении объемов производства (продаж), ухудшении качества продукции, увеличении брака, росте числа претензий к товару потребителей, повышении показателей текучести кадров, увеличении числа невыходов на работу по причинам болезни, др.

Современные причины сопротивления изменениям кроются в том, что, в частности, цифровые технологии, да и просто развитие прежних технологических систем, нивелируют профессиональные ценности традиционных специалистов, доводя дело до ликвидации рабочих мест и даже некоторых профессий. Развитие техники, технологий, позволяет предпринимателям заменять квалифицированных специалистов операторами технических устройств, компьютерных систем, сокращая работников, а оставшимся, обедняя содержание их труда, снижают заработную плату. Так, например, на малых предприятиях современные компьютерные системы бухгалтерского учета весьма успешно заменяют квалифицированных бухгалтеров. И такие тенденции просматриваются не только в сфере бухгалтерского учета. В итоге же в обществе появляются техноскептики, которые называют свое движение неолуддизмом и призывают оказывать сопротивление внедрению подобных инновационных изменений (Huesemann, 2011). Не изучать такие явления, имеющие место быть в трудовом поведении работников, никак нельзя. Исходя из этого, цель исследования заключается в развитии апробации методики управления инновационными изменениями, направленной на снижение оппортунистического потенциала персонала при восприятии работниками содержания

инновационных проектов. Объект исследования – медицинские диагностические учреждения. Методология исследования – система методов сбора данных, их обработки и производства знаний о содержании отношений оппортунизма при внедрении изменений, включающая в себя методы наблюдений, опросов по оригинальным разработанным авторами анкетам, систематизации данных, анализа и синтеза систематизированных сведений о трудовом поведении работников при внедрении инновационных изменений в медицинских учреждениях,

Концептуальные модели управления изменениями Курта Левина и Эдгара Шейна

Kurt Lewin's and Edgar Schein's conceptual models of change management

Причина сопротивления персонала изменениям, как отмечают зарубежные исследователи (Камерон & Грин, 2006), заключается в том, что внедрение любых инноваций неизбежно приводит к изменению содержания трудовых процессов, оценку результатов труда работников, т.п., что создает целый ряд проблем для работников, которые, в таких условиях, как и луддиты начала XIXв., других альтернатив сопротивлению изменениям не видят.

Исследование проблем сопротивления персонала внедрению изменений ведется давно. Известно несколько концептуальных моделей управления процессами внедрения изменений с целью преодоления сопротивления персонала. Первой и основной из них следует, пожалуй, назвать модель К. Левина (Levin, 1951), известного немецкого и американского психолога, основателя современной социальной психологии, автора теории лидерства и теории социальной динамики. Его модель управления изменениями включает в себя три этапа (Levin, 1951):

1. «Размораживание» сложившейся ситуации.
2. Внедрение изменений.
3. «Замораживание» измененной ситуации.

На первом этапе К. Левин предложил производить анализ поведения персонала с целью оценки возможностей на предмет формирования восприимчивости работников к внедряемым изменениям, определения конкретных «точек» в группе (команде), воздействие на которые может обеспечить снижение потенциала сопротивления. Здесь автор исходил из теоретических положений, установленных им в ходе психологических экспериментов, проведенных под его руководством в Центре изучения групповой динамики при Массачусетском технологическом институте, суть которых сводится к следующему: во-первых, вытесненным из привычных условий трудовой деятельности человеком управлять легче; во-вторых, на

индивидуумов эффективнее воздействовать, готовя их к восприятию технологических и организованных изменений, если они трудятся в группах, а не индивидуально. Опираясь на эти положения автора модели, на первом этапе необходимо организовать групповое обучение работников профессиональной работе в новых условиях. Это означает, что должны быть организованы курсы переподготовки, повышения квалификации работников. Должна, также, проводиться и целенаправленная разъяснительная работа о преимуществах инновационной программы, как с точки зрения содержания труда, так и его стимулирования в новых условиях. К этому, в общем и целом, и сводится содержание управленческих воздействий на первом этапе внедрения изменений по модели К. Левина. Они, по сути, направлены на корректировку видимых действий работников, их очевидной и реальной реакции на изменения (Levin, 1951).

Суть второго этапа модели К. Левина заключается собственно во внедрении инновационных изменений в практику реальной деятельности организаций. На этом этапе, если персонал прошел специальное обучение, весьма полезным может оказаться вовлечение работников в осуществление изменений: исполнители становятся, как бы, соавторами инноваций. Это, безусловно, снизит потенциал сопротивления работников и внедрение произойдет с наименьшими затратами времени и сил (Levin, 1951).

Третий этап, «замораживание»; его суть заключается в закреплении новых трудовых стереотипов в повседневной трудовой деятельности организации, внедрившей инновационные изменения (Levin, 1951).

Если процессы внедрения инновационных изменений рассматривать с точки зрения решения проблем нивелирования сопротивления персонала изменениям, то основным здесь следует назвать первый этап, ибо его суть заключается в подготовке всей последующей работы по внедрению инновационного проекта. Как менеджмент предприятия проведет его, таковым будет и трудовое поведение работников на втором и на третьем этапах внедрения инноваций; таковым будет и общий результат от последующего их использования. Это понял один из последователей К. Левина Эдгар Шейн (Шейн, 2007) и развил его модель в направлении познания и последующего использования на практике сущностных, т.е. не всегда и не во всем очевидных, глубинных скрытых причин сопротивления, которые укоренены в организационных культурах.

Оценивая важность первого этапа модели К. Левина в части преодоления менеджментом сопротивления персонала внедрению инновационных изменений, Э. Шейн сосредоточил свое внимание на организационных культурах предприятий. В частности, он предположил, что при внедрении любых изменений меняются и функции «когнитивных структур, таких как концепции, убеждения, установки, ценности,

представления» (Шейн, 2007). Это, как раз, и составляет содержательную основу организационных культур. Его взгляд на причины и природу сопротивления персонала изменениям следует оценить как более глубокий: ценностные нормы, ориентиры, убеждения и др., составляющие основу организационных культур, в трудовом поведении персонала при внедрении инноваций, безусловно, играют важную, определяющую, роль. Именно поэтому Э. Шейн не просто направил свою теорию именно на культурные аспекты; он вообще все изменения предложил первоначально ориентировать исключительно на организационные культуры, т.е. изменять собственно культуры, но при этом, иметь в виду, что «изменение культуры само по себе целью быть не может» (Шейн, 2007). Как это следует понимать? А понимать это можно только так: целью модели Э. Шейна, как и модели К. Левина, является внедрение инновационных изменений. Но, для того, чтобы это внедрение было осуществлено без значительного сопротивления персонала, предварительно нужно осуществить изменения в организационных культурах. Важно привести их, с точки зрения содержания, в адекватное с внедряемым инновационным изменением содержание. В этом и заключается суть модели Э. Шейна, ее отличие от модели К. Левина: она ориентирована не на очевидные формы трудового поведения работников, а на культурные обстоятельства (правила, нормы, ценности), обуславливающие это поведение.

Структурно модель Э. Шейна похожа на модель К. Левина. В ней также три этапа: «размораживание»; внедрение изменений; «замораживание» (Шейн, 2007). Но содержание этапов другое, поскольку изменения изначально ориентированы не на изменение трудового поведения, а на изменение культур, поскольку, как следует из содержания его модели, без изменения культур, или, по-другому, без приспособления их к содержанию внедряемых инновационных проектов, потенциал сопротивления работников их внедрению нельзя уменьшить. Это однозначно следует из дополнений, сделанных им, к названиям этапов. Так, в частности, ещё одно (поясняющее) название первого этапа – «размораживание» – автор обозначил как «противоречие», имея в виду разрешение имеющихся в социально-трудовой среде предприятий противоречий, мешающих внедрению инновационных изменений. Он увидел, что при внедрении инноваций, которые не могут не изменять организационных структур, система приходит в состояние дисбаланса в части культур. Это обусловлено тем, что при внедрении любых изменений изменяться должны и сами люди. И изменение самих работников одним обучением не обеспечить; нужны более глубокие преобразования. Э. Шейн увидел их в преобразованиях организационных культур.

С таким, обусловленным именно культурами, сопротивлением персонала внедрению изменений один из авторов этих строк столкнулся в 1990-х гг., когда принимал участие в консультациях руководства предприятий по внедрению маркетинга. В конечном итоге, службы маркетинга создавать удавалось, но сам маркетинг на предприятиях, от этого, отнюдь не появлялся. Причина заключалась в том, что организационные культуры отечественных предприятий отторгали чужеродные методы и процедуры, даже если они были рациональными и необходимыми для работы в условиях рынка. Получалось, как в медицине при пересадке органов: организм реципиента отторгает несоответствующий его органической структуре донорский орган; так и при внедрении зарубежных методов и приемов управления – организационные культуры отечественных предприятий отторгали разработанные в других культурах модели, задачи, системы менеджмента. Для преодоления этого сопротивления был предложен методический подход, который в некоторой степени снижал потенциал сопротивления персонала внедрению служб маркетинга на отечественных предприятиях (Беляев, 2010). Некоторое время он успешно использовался при внедрении маркетинга на начальных этапах рыночных реформ.

Таким образом, предложение Э. Шейна учитывать при внедрении инновационных проектов культурную составляющую, является чрезвычайно важным, поскольку направлено не просто на внедрение новых технологий, но и на изменение человека для работы в этих новых технологических и организационных условиях (внедрение новых технологий, зачастую, как уже указывалось выше, обуславливает и необходимость изменения организационных структур). Не отрицая ни одного положения модели К. Левина, Э. Шейн дополняет ее своими положениями. Так, в частности, должным образом оценивая предложения К. Левина по обучению персонала новым технологиям, он, вместе с тем, обращает внимание и на то, что, прежде чем обучить работника использованию того или иного положения внедряемой технологии, надо его отучить от прежних стереотипов трудового поведения, сформировавшихся в условиях применения заменяемых технологий. До тех пор пока над работником будут довлеть прежние трудовые стереотипы, он будет ощущать возникшую противоречивость своего производственного бытия, и будет сопротивляться внедрению новых форм организации труда. «Ключ к пониманию сопротивления изменениям в том и состоит, чтобы понять, что отказаться от некоторых моделей поведения, ставших ... дисфункциональными, бывает все же трудно, т.к. можно лишиться членства в группе или нарушить некоторый аспект... самоидентификации» (Шейн, 2007). Вывод автора из этого такой: надо не только обучать работников решению

новых задач, или прежних задач новыми способами, надо их отучать от прежних стереотипов трудового поведения.

Обратив внимание на необходимость изменения в процессах внедрения технологических и организационных изменений и людей тоже, Э. Шейн побудил сообщество ученых и менеджеров, занимающихся проблемами внедрения инноваций в производство, взглянуть на роль и значение самого работающего человека с другой точки зрения. Он, по сути, подвел их к мысли о том, что древнегреческий философ Гераклит (которого называют основоположником современной теории управления изменениями), заявивший о невозможности войти в одну и ту же реку дважды, поскольку все течет, все изменяется, неявно подчеркнул, что и сам человек, входящий в эту реку во второй раз уже не тот – он тоже изменился (Камерон & Грин, 2006).

Действительно, все в этом мире подвержено изменениям; нет ничего более постоянного, чем изменения. Не свободны от изменений и люди. После публикации трудов Э. Шейна многие ученые разных стран стали проводить специальные научные исследования, посвященные именно изменениям работников в решении проблем преодоления сопротивления персонала при внедрении инновационных программ; их результаты нашли широкое отражение во множестве статей и книг. В них, в основном, предлагаются решения, касающиеся видимых аспектов преодоления проблем сопротивления изменениям, таких, например, как учет многообразных взаимодействий работников в процессах освоения ими новых технологий (Стребел, 2007), создание инновационной корпоративной инфраструктуры посредством производства новых научных знаний и их производственного потребления, превращения обучения в корпоративную религию, др. (Мэттью, 2004). Подобные методы, безусловно, решают проблемы внедрения инновационных изменений, но далеко не в полной мере, поскольку все известные методики отнюдь не направлены на устранение сущностных причин, порождающих сопротивление персонала изменениям. Чтобы на уровне сущностных основ, формирующих трудовое поведение работников, разобраться в причинах, вызывающих сопротивление, и в действиях, необходимых для его нейтрализации, предлагается продолжить намеченное Э. Шейном движение в их познании в направлении погружения на более глубокий сущностный уровень: другими словами, предлагается с уровня организационных культур перейти на уровень социально-трудовых отношений.

Социально-трудовые отношения: основа трудового поведения людей, их структура и роль в восприятии персоналом инновационных изменений

Social and labour relations: the basis of employee behaviour, their structure and role in perceiving innovation changes by the employees

Как известно, предела для совершенствования нет. Поэтому, несколько не умаляя роли и значения представленных выше моделей, вместе с тем, отметим, что, в силу изменения содержания самих изменений (это не тавтология), настала пора переосмыслить некоторые концептуальные положения управления внедрением этих содержательно изменившихся изменений. Современные инновационные изменения основаны на таких технологиях, которые восприниматься персоналом положительно могут только при условии более тонкой работы с людьми, чем предусматриваемые прежде процедуры переподготовки, повышения квалификации, мотивации, воздействия на культурные составляющие труда. Действительно, цифровые технологии, компьютеры, современные средства передачи данных, др., привносят в содержание труда такие новые нюансы, которые приводят не только к изменению трудовых стереотипов (на что, собственно, и ориентирована модель К. Левина), но и к изменениям в содержании труда, а, следовательно, и в отношениях работников к труду вообще. Это с одной стороны. А с другой – следует, все-таки, признать, что известные концептуальные подходы к управлению изменениями в организациях не решали и не решают в полной мере проблемы сопротивления персонала, поскольку ориентированы они исключительно на внешние заметные проявления скрытых сущностных причин, а не на сами эти скрытые сущностные причины. Другими словами, они ориентированы на борьбу с симптомами, а не с причинами, их вызывающими. В случае управления изменениями точно также; действие симптомов ослабляется, но вызвавшие их причины остаются, следовательно, в последующих процедурах внедрения изменений они вновь проявят (и проявляют) себя все в той же форме сопротивления персонала их внедрению. Это и служит основанием для продолжения исследований в области управления изменениями в целях нейтрализации сопротивления персонала, в принципе.

Любому исследованию, как известно, предшествует этап предварительного осмысления проблемы, ее содержания на уровне понятий, связей между ними, т.п. На этом этапе, в частности, установлено, что сопротивление персонала изменениям проявляется в конкретных трудовых действиях, которые никак не способствуют (или способствуют не в полной мере) реализации потенциала внедряемых изменений; это, в общем и целом, есть не что иное, как одна из форм трудового поведения

работников. Социальными психологами и другими исследователями установлено, что сущностной основой любого поведения людей являются отношения (Черчилль & Якобуччи, 2004). Отсюда, по аналогии, можно заключить, что сущностной основой трудового поведения являются социально-трудовые отношения. Как внутреннее содержание трудового поведения, они – эти отношения – неочевидны; и именно в этой ненаблюдаемой напрямую среде социально-трудовых отношений и сокрыты сущностные причины сопротивления персонала изменениям.

Что же собой представляют социально-трудовые отношения? В общем и целом, под социально-трудовыми отношениями понимают «объективно существующие взаимозависимость и взаимодействие субъектов этих отношений в процессе труда, нацеленные на регулирование качества трудовой жизни» (Меликьян & Колосова, 1996). По признаку, «каким конкретно образом принимаются решения в социально-трудовой сфере» (Меликьян & Колосова, 1996) авторами цитируемого учебника произведена их классификация. В частности, ими выделены следующие классы (типы) социально-трудовых отношений: солидарность, патернализм, субсидиарность, партнерство, конфликт, дискриминация (Меликьян & Колосова, 1996). Несколько позднее, профессор Б.М. Генкин предложил еще один тип социально-трудовых отношений – внутреннюю конкуренцию работников (Генкин, 2006). Кроме того, он предложил все выявленные типы социально-трудовых отношений сгруппировать в две группы: конструктивные и деструктивные. Это, по его мнению, обуславливается тем, что «противоречия в социально-трудовых отношениях неизбежны» (Генкин, 2006). Следовательно, неизбежным является и наличие противоположно направленных характеристик этих отношений (ожиданий, интересов, ценностей работников, т.п.). Именно в противоречиях, согласно диалектике, задействованы как конструктивные начала (силы) функционирования и развития предприятий, так и деструктивные. Это обстоятельство можно и, безусловно, нужно учитывать в решении проблем управления трудом на предприятиях, в том числе и при снижении потенциала сопротивления персонала изменениям.

Авторы данной работы, применив разработанный ими метод двумерной матричной классификации деструктивных социально-трудовых отношений по признакам «противодействие и сопротивление (слабое – сильное), «форма проявления (неявная – явная)» (Беляев, Мельников, & Самсонов, 2015), выделили еще четыре типа социально-трудовых отношений, никем не описанных ранее. Целью такого исследования было выявление скрытых сущностных причин, выражающихся, в частности, в сопротивлении персонала официальным трудовым регламентам, проявляющимся в сокрытии работниками резервов рабочих мест, скрытных

нарушениях трудовой дисциплины, техники безопасности, т.п. В итоге были выявлены еще четыре типа социально-трудовых отношений, деструктивных по своей природе: трудовой конфликт (слабое сопротивление, явная форма проявления); трудовая конфронтация (сильное сопротивление, явная форма проявления); трудовой эгоизм (слабое сопротивление, неявная форма проявления); трудовой оппортунизм (сильная форма сопротивления, неявная форма проявления) (Беляев и др., 2015). В пользу того, что это самостоятельные типы социально-трудовых отношений говорит то обстоятельство, что один из них – а именно, трудовой конфликт – указан и в другой классификации, выполненной по признаку способов и условий принятия управленческих решений (Меликьян & Колосова, 1996).

Особый интерес, в контексте исследования проблем сопротивления персонала изменениям вызывает трудовой оппортунизм, как самостоятельный тип социально-трудовых отношений. В данной статье представлены результаты дальнейших исследований авторов, выполненных ими в направлении поиска путей для разработки концептуальных положений и методических средств решения проблем трудового оппортунизма при внедрении инновационных изменений.

Подробный анализ понятия «оппортунизм», в общем и целом, представлен в одной из монографий профессора Е.П. Попова (Попов, 2011). Исходя из подробных комментариев, представленных в этой работе, оппортунизм, в общем и целом, можно определить, как скрытое преднамеренное извлечение выгоды одной стороной сделки за счет умышленного нанесения ущерба другой стороне. Поскольку в сфере труда участвуют две стороны (работодатель и работник) между ними также возникают подобного рода отношения, и это есть не что иное, как трудовой оппортунизм – самостоятельный тип социально-трудовых отношений. В общем и целом, трудовой оппортунизм, как тип социально-трудовых отношений, представляет собой скрытые (неявные) намерения сторон трудовых соглашений в извлечении выгоды за счет умышленных нарушений трудовых регламентов. Например, нарушения в сфере охраны труда, осуществляемые руководством предприятий в форме закупки дешевых и несоответствующих официальным требованиям средств индивидуальной защиты работников от вредных воздействий среды – это трудовой оппортунизм менеджмента по отношению к работникам. Нарушения правил техники безопасности с целью сокращения затрат рабочего времени – это трудовой оппортунизм работника по отношению к менеджменту. И таких форм проявлений трудового оппортунизма много. Одной из них и является сопротивление персонала изменениям.

**Концептуальная модель управления изменениями в области
социально-трудовых отношений: общие положения**
*A conceptual model of change management in the field of the social and
labour relations: general provisions*

Исходными предпосылками предлагаемой концептуальной модели является, во-первых, то, что социально-трудовые отношения представляют собой сущностную основу трудового поведения сторон трудового соглашения (трудового договора): работников и работодателей. Во-вторых, сопротивление персонала изменениям, представляя собой одну из форм трудового поведения работников, на сущностном уровне организации труда, обуславливается трудовым оппортунизмом, как одним из типов социально-трудовых отношений. Исходя из этого, авторы и предлагают, опираясь на трудовое поведение работников в периоды внедрения изменений (концепция К. Левина), а также на очевидные культурные правила, ценностные ориентиры и т.п., которыми руководствуются работники при исполнении своих должностных обязанностей (концепция Э. Шейна), менеджмент предприятий свои корректирующие воздействия должен направлять на социально-трудовые отношения. Поскольку именно на уровне социально-трудовых отношений и следует искать причины сопротивления персонала изменениям с тем, чтобы обнаружив, воздействовать на них в нужном направлении; тогда «размораживание» ситуации будет более полным и действенным.

Предлагаемая модель, также как и две предыдущие, направлена, в общем и целом, на внедрение инновационных изменений. Она, также как и модели К. Левина и Э. Шейна, состоит из тех же самых трех этапов: «размораживание», внедрение изменений, «замораживание». Но содержание их и структура задач на каждом из них не во всем похожи на структуру и содержание задач, которые решаются в моделях К. Левина и Э. Шейна. Отличия структуры и содержания этих задач определяются предметом, на которые изначально предлагается направлять управленческие воздействия – а именно, содержанием социально-трудовых отношений.

Существенные отличия предлагаемой модели имеют место быть на первом этапе – при «размораживании» – поскольку «размораживать» приходится не очевидные трудовые поведенческие стереотипы, как в модели К. Левина, и не культурные нормы и правила, как в модели Э. Шейна, которые тоже, вообще-то, очевидны, а скрытые и не во всем очевидные отношения между людьми. Это означает, что надо их выявить, установить, описать структуру, т.е. определить типы социально-трудовых отношений и количественно оценить силу воздействия каждого из них на

трудовое поведение работников. Это, в общем и целом, исследовательские задачи, которые должны решаться каждый раз на каждом предприятии, осуществляющем внедрение инноваций на этапе «размораживания».

Методика исследования содержания и структуры социально-трудовых отношений

Research methodology used to study the content and structure of the social and labour relations

Методика рекомендуется к применению ее на этапе «размораживания», и ориентирована на трансформацию системы социально-трудовых отношений. Она, в свою очередь, также состоит из трех этапов.

Первый этап. Начинать исследования рекомендуется с установления (идентификации) источников формирования системы социально-трудовых отношений на данном предприятии. В общем и целом, можно сказать, что в формировании системы социально-трудовых отношений на предприятиях участвуют два источника: организационные структуры и организационные культуры. Организационные структуры разрабатывают официальные регламенты организации труда на предприятиях. На их основе в трудовых коллективах формируются очевидные трудовые отношения. Организационные культуры, на который обратил внимание Э. Шейн, определяя их роль и значение в формировании потенциала сопротивления персонала изменениям, формируют не всегда и не во всем очевидные социально-трудовые отношения, в которых и зарождаются деструктивные формы трудового поведения. Конечно, нельзя сказать, что между этими двумя источниками существуют четкие различия: очевидные трудовые отношения формируются исключительно под воздействием официальных трудовых регламентов, а неочевидные – только под воздействием культурных факторов. Нет, конечно. Нередки случаи, как показывают исследования, когда официальные регламенты вызывают скрытое недовольство отдельных работников, что вызывает зарождение в коллективе оппортунистических настроений и намерений, выражающихся в скрытых негативных поведенческих реакциях. Со временем эти настроения и намерения крепнут, расширяются; в итоге они могут оформляться в виде отношений трудового оппортунизма, которые, затем, и определяют трудовое поведение уже больших групп работников. Бывает и наоборот: организационные культуры в форме сложившихся правил, оценочных норм, т.п. не позволяют отступать от довлеющих привычек, социальных установок, при внедрении новых трудовых регламентов; в итоге и в этом случае могут зародиться оппортунистические трудовые отношения.

На первом этапе исследования, посредством применения методов наблюдений, изучения трудовых регламентов, рекомендуется четко и однозначно идентифицировать структурные источники формирования системы социально-трудовых отношений. Эта процедура позволит установить типы социально-трудовых отношений, которые формируются (или могут формироваться) на очевидной основе. Здесь важно описать формы проявления этих отношений по выявленным типам.

Второй этап. Далее, исследование рекомендуется направить на выявление неочевидных источников формирования социально-трудовых отношений. К ним, как отмечено выше, относятся организационные культуры. Сделать это можно посредством опросов экспертов, которые понимают суть внедряемых изменений, и работников, которым предстоит осваивать внедряемые инновации. Руководствуясь принципом движения от общего к частному в познании скрытых сущностных характеристик исследуемого предмета, второй этап рекомендуется начать именно с опроса экспертов. В связи с этим, авторами разработан подробный сценарий проведения экспертных опросов. В выборку экспертов рекомендуется включать генеральных руководителей организаций и их заместителей, где планируется внедрение инноваций, а также руководителей функциональных подразделений, руководителей среднего звена, исполнителей, имеющих опыт участия в подобных изменениях. Беседу с каждым экспертом рекомендуется проводить по одной и той же схеме, состоящей из таких пунктов, которые не могут быть затронутыми в ходе внедрения инноваций. При этом обсуждение одних и тех же сторон изменений предусмотрено проводить с постепенным погружением в конкретные особенности обсуждаемых сторон и характеристик по мере продвижения по иерархии управления сверху вниз. Анализ информации, полученной в ходе таких бесед, позволяет выявить скрытые неочевидные «пути» воздействия содержания внедряемых изменений на восприятие их работниками, в трудовую среду которых внедряются инновации, и формирование их отношений к данным изменениям в социально-трудовой сфере.

Проникновение на глубинные уровни формирования отношений, как сущностной основы организации труда, предлагается осуществить серией массовых опросов работников, в трудовую среду которых внедряются инновации. Для решения этой задачи авторами разработаны и предлагаются пять типов опросных листов, применять которые нужно также последовательно в направлении движения от общего к частному. Первая анкета «Исследование организационной культуры» позволяет оценить силу или слабость действующих на предприятии организационных культур. Результаты анкетирования с использованием второй анкеты «Исследование содержания социально-трудовых отношений» позволяют понять, в первом

приближении, что, в общем и целом, представляет собой сложившаяся на предприятии система социально-трудовых отношений. Применение третьей анкеты «Исследование структуры социально-трудовых отношений с подразделением на конструктивные и деструктивные с выделением в них трудового оппортунизма» и анализ полученных в ней ответов, позволяет получить количественные оценки в соотношениях конструктивных и деструктивных отношений, а также определить доли оппортунизма в деструктивных. И, наконец, пятая анкета «Исследование полной структуры социально-трудовых отношений (с выделением десяти их типов)» направлена на то, чтобы, исходя из мнений респондентов, в результате обработки и анализа ответов на ее вопросы появилась возможность количественно оценить структуру сложившейся системы социально-трудовых отношений по всем типам.

Третий этап. На третьем этапе производятся новые знания о содержании и структуре системы социально-трудовых отношений на предприятии, внедряющем инновации. По результатам обработки пяти анкет и одного экспертного опроса предлагается произвести расчеты и оценить в процентах долю каждого типа социально-трудовых отношений в сложившейся на предприятии системе этих отношений. Результаты рекомендуется представлять в таблице и в модифицированной форме диаграммы Майкла Портера (Портер, 1993), что позволяет не только увидеть, но и количественно оценить соотношение типов социально-трудовых отношений в их сложившейся системе.

Апробация предлагаемой концептуальной модели управления изменениями

Practical evaluation of the proposed conceptual model of change management

В качестве объекта апробации были выбраны медицинские учреждения, специализирующиеся на диагностике заболеваний и внедряющие новые программные средства, обеспечивающие более высокий уровень качества обслуживания пациентов. Было проведено исследование структуры и содержания сложившейся системы социально-трудовых отношений по представленной выше методике. Оценку структурных элементов системы в баллах присуждали работники учреждения, в социально-трудовую среду которых и внедрялись инновационные изменения. Опрос работников производился в период внедрения изменений. Анализ ответов по пятой анкете апробируемой методики показал следующие структурные характеристики системы социально-трудовых отношений в момент внедрения изменений: патернализм – 29,8 баллов; партнерство – 26,8 баллов; конкуренция – 25,4 баллов; солидарность – 31,2

баллов; субсидиарность – 27,8 баллов; дискриминация – 33,2 баллов; конфликт – 20,2 баллов; трудовой эгоизм – 19,4 баллов; трудовой оппортунизм – 33,4 баллов; трудовая конфронтация 32,6 баллов. Анкета авторами разработана таким образом, что предполагает возможность соотнесения ответов на поставленные в ней вопросы с типами социально-трудовых отношений, следовательно, и идентификацию и количественную оценку последних; в баллах по каждому типу отношений в общей их структуре. Оценка производится респондентами в пятибалльной шкале. Выборка – сплошная, т.е. опрошены были все работники, в трудовую среду которых внедрялись изменения. При подсчете средних значений баллов получились дробные числовые значения оценок. В методологическом арсенале авторов есть и другие методические подходы к сбору и обработке данных, позволяющих количественно оценивать структуру социально-трудовых отношений.

Сложившаяся ситуация, отражаемая этими оценками, отнюдь не свидетельствует о беспроблемном восприятии работниками внедряемых изменений; при таком соотношении типов социально-трудовых отношений сопротивление персонала изменениям неизбежно; и оно не может быть слабым, что и подтвердила реальная действительность, оцененная в ходе последующих наблюдений

Сопротивление персонала на уровне исполнителей в анализируемой ситуации выражалось в замедлении процессов внедрения, умышленном допущении ошибок со ссылками на несовершенство программного обеспечения, росте числа увольнений по собственному желанию (на одном из наблюдаемых объектов зафиксирован случайодновременного увольнения всего подразделения – уволились семь специалистов высокой квалификации во главе с руководителем). Иногда администрация своими решениями сама вынуждала квалифицированных работников увольняться, поскольку они, явно и неявно, сопротивлялись внедрению изменений. На освобождавшиеся места принимались новые работники, которые, в общем и целом, неплохо владели компьютерной техникой, но не знали специфики и тонкостей содержания труда в данном учреждении. В итоге также появлялись ошибки, хотя и непреднамеренные, но организации от этого было ничуть не легче.

В других медицинских учреждениях были отмечены другие ситуации, но во многом похожие на описанную выше; в них также просматривались признаки трудового оппортунизма в форме сопротивления персонала изменениям.

Обобщая результаты анализа опросов, выполненных по апробируемой методике, а также результаты неформализованных опросов некоторых увольняющихся работников, авторы пришли к следующему выводу. При

внедрении изменений в условиях превалирования в социально-трудовых отношениях деструктивных типов, в их структуре непременно начинают формироваться системные отношенческие образования негативной направленности, определяющие трудовое поведение работников. С позиций предлагаемой модели управления изменениями, ориентированной на исследование структуры и содержания социально-трудовых отношений и целенаправленного воздействия на них с целью ориентации этих отношений на позитивное восприятие изменений, такую тенденцию можно объяснить следующим образом. Большие значения трудового оппортунизма, трудового эгоизма, трудового конфликта работников, как это имело место быть в анализируемой ситуации, обуславливают солидаризацию работников, выражающуюся в объединении их в неформальные временные партнерства негативной направленности. В итоге, в трудовом поведении персонала деструктивные формы трудового поведения начинают нарастать по закону синергии, т.е. усиливать общий эффект сопротивления персонала не в форме простого суммирования составляющих, а по нелинейно нарастающей тенденции. Такой синергический эффект обуславливается еще и тем, что в структуру взаимодействующих деструктивных типов социально-трудовых отношений органично вплетаются и конструктивные типы, еще больше усиливая деструктивный эффект сопротивления. Так, в частности, в анализируемой ситуации, солидарность и партнерство, как конструктивные типы социально-трудовых отношений, сосредоточили в себе все деструктивные начала трудовых намерений работников, что выразилось в стремительном, синергически нарастающем росте текучести кадров. Это, пожалуй, следует признать крайней, или близкой к таковой, формой проявления солидарности и партнерства в мобилизации деструктивных начал социально-трудовых отношений на предприятиях при внедрении изменений. Такие синергические образования в сфере социально-трудовых отношений, несмотря на то, что в них присутствуют и трудовые конфликты, и трудовой эгоизм, предлагается назвать оппортунистическими, поскольку оппортунистические начала на стадии их зарождения, которая может быть более или менее длительной, все-таки преобладают: действительно, формирование таких деструктивных партнерств происходит на скрытной, незаметной для менеджмента, основе.

Оставлять без исследовательского внимания эти явления никак нельзя. Необходимо искать и находить причины их появления, генерировать формы воздействия на них с тем, чтобы снизить оппортунистический потенциал персонала перед внедрением изменений. Предлагаемая концептуальная модель управления изменениями, ориентированная на содержание и структуру социально-трудовых отношений, как раз и ориентирована на такие задачи. Их решение позволяет менеджменту подготовить работников

к адекватному восприятию инноваций. Остальные два этапа концептуальной модели управления изменениями – собственно внедрение и «размораживание» – аналогичны, в основном, содержанию решаемых задач в моделях К. Левина и Э. Шейна.

Выводы *Conclusions*

Цифровые технологии, компьютерная техника, современные средства передачи данных, др., привносят в содержание труда работников такие новые нюансы, которые приводят не только к изменению трудовых стереотипов, но и к изменениям в отношениях работников к труду вообще, к менеджменту предприятий и друг к другу, в частности. В содержании труда и в системе общественных отношений происходят, примерно, такие же «тектонические сдвиги», как и во времена промышленной революции, породившей движение луддитов. Сейчас, конечно, никто не будет крушить компьютеры; предпосылок к этому нет. Но сопротивление персонала внедрению новых инновационных технологий есть. Это отмечают многие исследователи. Следовательно, есть и острая потребность в решении этих проблем. Она лежит на сущностном уровне организации труда: а именно в сфере социально-трудовых отношений. Предложенная концептуальная модель управления изменениями, как раз, и направлена на трансформацию отношений в социально-трудовой сфере предприятий, в подготовке их к адекватному восприятию инноваций; и она, как показала апробация, способна решать эти проблемы, хотя, безусловно, еще и нуждается в дальнейшем развитии, совершенствовании, что требует дополнительных исследований и размышлений.

Summary

The paper is dedicated to developing and evaluating a conceptual model of management related to the labour relations in implementing innovative changes. The truth of the matter is that employees resist the implementation of innovative projects. A lot of foreign researchers have reported this fact. They developed some management models for the implementation of innovative changes. The most famous of them are Kurt Lewin's and Edgar Schein's models. The paper gives the description of both models, as well as the analysis of the content of their structure and functions performed. Based on the analysis, the authors came to the conclusion that E. Schein's model is a logical extension of K. Lewin's one. It specialises in the object of managerial impact. While K. Lewin's model is focused on adapting employee behaviour to the changes being implemented, E. Schein's model originally offers organizational cultures – employees' values, their interests, existing traditions, etc. – as an object of changes. The

direct impact on them creates real premises of adaptation of cultural practices and rules to the innovative changes being implemented. This reduces the potential of employee resistance to the changes being implemented. However, it still remains rather high. Hence, the paper provides evidence that the essential characteristics of the causes for such employee resistance to change lie not only in cultural practices and rules but also in the contents and structure of the social and labour relations. They manifest themselves as opportunism at work. The authors believe that this problem can be solved by developing K. Lewin's and E. Schein's change management models. At the opening preparatory stage of E. Schein's model, by the procedure developed by the authors, it is suggested to do research aimed at identifying the contents of the social and labour relations. The research allows us to reveal and estimate fractions of constructive labour relations and negative ones, as well as to determine the fraction of opportunism at work that manifests itself as employees' latent actions against the changes being implemented. It allows the management team of an organization to correct the social and labour relations towards decreasing the potential of employee resistance to change. To solve this problem, the authors developed five scenarios and tools for gathering data through an employee survey in the environment where implementing innovative changes is expected. The findings are supposed to be presented in the form of M. Porter's diagram, on the axes of which are indicated the types of social and labour relations; it perfectly reveals problem areas in the general structure of the social and labour relations. It is the managerial impact on them that allows a decrease in employee opportunistic potential. The paper contains the results of the evaluation of the methodical approaches, proposed by the authors, in health care institutions. These results give evidence of a significant decrease in the potential of employee resistance to implementing innovative projects.

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TRENDS IN THE DEVELOPMENT OF INTEGRATED MARKETING COMMUNICATION IN THE CONTEXT OF DIGITAL MARKETING

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Abstract. Nowadays, in the context of digital marketing and social media development, with the advantages given by technologies and the vast possibilities of communication among consumers, businesses find the implementation of integrated marketing communication (IMC) influenced by the Internet as a marketing communication environment where businesses are urged into a customer-centric approach by the consumers' changing habits of receiving information. This results in an increased role of content marketing, relationship orientation, dialogue and network communication, management of multiple stakeholders etc., which envisages consumer involvement with a view to mitigating the consequences caused by the obstacles to marketing communication – loss of control over corporate communication and being adversely affected by invisible communication. Aim of the research was to study and assess IMC in the context of digital marketing and its influence upon buyers' buying decisions. The object of the research is IMC. The subject of the research is the influence of IMC upon buyers' buying decisions. The research makes use of the results of studies conducted by the author in 2017 and 2018. There was a survey of leading marketing specialists of Latvian food retail chains and a survey of randomly selected buyers with a sample of 1,003 respondents to find out the influence of IMC upon the buyers' buying decisions. The research brings conclusions regarding the consumption habits of different generations and other factors influencing buying decisions. The research confirmed the hypothesis that IMC in the context of digital marketing is a relatively little used type of communication in the marketing communication strategy of businesses, yet its use facilitates consumer loyalty. The results of the research are of both theoretical and practical value.

Keywords: digital marketing; consumers' buying decisions; integrated marketing communication; integrated marketing communication for sustainability; sustainable marketing; survey of buyers; survey of leading marketing specialists

Introduction

Nowadays, in the context of digital marketing and social media development, with the advantages given by technologies and the vast possibilities of communication among consumers, businesses find the implementation of integrated marketing communication (IMC) influenced by the Internet as a marketing communication environment where businesses are urged into a

customer-centric approach by the consumers' changing habits of receiving information. This results in an increased role of content marketing, relationship orientation, dialogue and network communication, management of multiple stakeholders etc., which envisages consumer involvement with a view to mitigating the consequences caused by the obstacles to marketing communication – loss of control over corporate communication and being adversely affected by invisible communication. In this research, the author surveyed buyers of Latvian food retail chains to find out the influence of IMC upon the buyers' buying decisions. The research brings conclusions regarding the consumption habits of different generations and other factors influencing buying decisions.

Aim of the paper: the aim of the research was to study and assess IMC in the context of digital marketing and its influence upon buyers' buying decisions. The object of the research is IMC. The subject of the research is the influence of IMC upon buyers' buying decisions.

Methodology/methods: The research makes use of the results of studies conducted by the author in 2017 and 2018. There was a survey of leading marketing specialists of Latvian food retail chains and a survey of randomly selected buyers with a sample of 1,003 respondents. In order to attain the goal and objectives, the following quantitative and qualitative methods of economic research were used: survey, comparison, grouping, evaluation, market investigation, comparative analysis. The study is based on scientific papers published by Latvian and foreign scholars, general and special literature, and periodicals. The survey data were processed and analysed using the MS Excel and SPSS software.

Findings: The research confirmed the hypothesis that IMC in the context of digital marketing is a relatively little used type of communication in the marketing communication strategy of businesses, yet its use facilitates consumer loyalty. The results of the research are of both theoretical and practical value.

Development of the environment of integrated marketing communications

The approaches, models and classifications of marketing communications discussed in literature are distinguished between two concepts – inside-out orientation and outside-in orientation. **The inside-out orientation** is dealt with by such authors as Schultz, Tannenbaum and Lauterborn (1993) and Duncan and Caywood (1996). According to them, IMC activities are managed by the company, with the integration having the objectives of: 1) creating internal conditions (such as internal communication activity planning, organisational structure, personnel, implementation, and integration) to lay the internal foundations for an effective external communication; 2) coordinating and

approving external communication activities to make sure that the company's image be clear, unified and comprehensible. This applies to all communication messages generated by the company and addressed to all external stakeholders. Rooted in economics and strategic management literature, the inside-out orientation is an internally oriented strategic posture, the focus of which lies on how a firm achieves superior performance by developing, possessing, capitalising on, and deploying strategic firm-specific resources that are valuable, scarce, inimitable, and non-substitutable (Barney, 1991; Miller, Eisenstat, & Foote, 2002; Day, 2011). The inside-out orientation is positively related to a firm's innovation performance and overall performance. A dynamic strain of the inside-out orientation that draws on evolutionary economics is the theory of organizational dynamic capabilities (Zott, 2003; Newbert, 2007; Day, 2011). **The outside-in orientation**, in turn, is supported by such authors as Kliatchko (2008) and Bruhn (2014). Under this view, IMC are deemed customer-centric in the sense that the company adapts all its communication activities to customers and integrates customers in their communication by reversing the direction of relationship from company-to-customer to customer-to-company. Both authors also point out that communication activities may be customer-initiated and aimed towards the company; customers actively search for information of interest and thus decide themselves where and when to receive (or pull out) content from the company or get in touch with it. This view is therefore also known as *pull* communication. Furthermore, the company's activities in the integration of user-generated content fall within the IMC concept, and IMC thus move from telling and selling to listening and learning. Posting user-generated content in the social media enables the company to learn more about their customers' intentions, needs and wishes, and the information obtained through feedback may be used as the basis for the planning and implementation of the company's communication activities. With this extended approach, both the company's outgoing messages and the customers' incoming messages contribute to a consistent presentation of the company's communication. The aspect of meaning creation here is of particular importance, as the customer encodes the message, thus creating the meaning of all the company's marketing and communication activities.

In respect of both above orientations, Bruhn and Schnebelen (2017) emphasise the role of social media. They argue that both parties – senders and recipients – consecutively communicate and the communication roles interact. In such a media landscape, businesses no longer operate in a centralised model as the sole content creators and distributors – social media empowers customers to decide what information they wish to receive from the company and what to send to the company and fellow customers. It is also stressed that the existing IMC concepts do not discuss IMC in detail in the context of social media epoch and most of those IMC concepts present IMC as merely a new communication tool

that enriches the set of communication measures, thus overlooking the fact that social media has structurally transformed the communication market, as senders and recipients are no longer clearly defined and may change infinitely. Since the existing IMC concepts do not take into account the said impact, integrated user-generated content and other matters remain an untapped resource.

Segments of users in the market of services can be defined by generations and their distinctive characteristics, so the theory of generations can be used as a consumer segmentation tool (Sabaitytė & Davidavičius, 2017).

In the context of social media development, Bruhn and Schnebelen (2017) highlight the current development trends of IMC and the challenges faced when working on corporate IMC strategies. The key challenges and trends, in their opinion, are associated with loss of control, content marketing, dialogue and network communication, and multiple stakeholder management (Bruhn & Schnebelen, 2017).

The sustainable development of internet marketing faces the dynamic environment and its alterations, which occurs in both – business terms and conditions, and in the use of electronic tools and applicable concepts. The growing importance of internet marketing is being indicated by the development of electronic markets, increasing number of new generation consumers, deepening interest of scientists from different scientific fields, as well as widening the related knowledge base (Sabaitytė & Davidavičienė, 2018).

The development of social networks leads to new ways of marketing communication and poses new scientific challenges. The growing importance of B2B and B2C communication and the relationship with the customers is influenced by dynamic changes in the e-marketplace (Davidavičienė, Pabedinskaitė, & Davidavičius, 2017).

Ashley and Tuten (2015) maintain that, with customers actively contributing to the communication process, the volume of communication and available content has vastly increased, making the social media landscape less transparent for businesses. As customers are able to actively influence, create and manage communication through their contribution to the process and thereby gain power, businesses lose control over their communications. They no longer control when, where and how customers express their opinions about the company, its products and brands, and when, where and how customers share the content of communication messages generated by the company or consumers themselves (Bruhn & Schnebelen, 2017).

Jefferson and Tanton (2013) opine that the loss of control and the inflow of content mark the importance of a comprehensive content marketing strategy. This constitutes yet another major IMC challenge. In order to successfully defend themselves in the uncontrolled social media space, businesses need to be able to provide customers with a consistent content that is topical and useful and meets

the required quality standard (i.e., the content adapted to the customers' needs and wishes). According to Preece (2001), in order to achieve this and generate an added value, the IMC concept needs to ensure that businesses constantly expand their content competence. This requires appropriate technical facilities, attractive presentation of information, and easy access to information. An ever-increasing supply of new media technologies (such as social media and mobile devices) provides alternative communication options that promote multilateral dialogues among businesses and stakeholders (Mangold & Faulds, 2009). These dialogue and network communications pose new strategic IMC challenges. The interactivity and mobility of means of communication now enables and encourages customers to become active content creators, weakening the corporate media control; yet at the same time, this new functionality enables businesses to use this content any time and engage in a direct personal dialogue with the target audience (Kaplan & Haenlein, 2010).

Closely related to dialogue and network communication is multiple stakeholder management (e.g., of customers, employees, channel members, society, and suppliers). The task of IMC is to deliver its generated content to all stakeholders and integrate it in strategies, increasing the variety of the needs, interests and wishes to be served. However, the need for individualised communication and customised communication messages makes IMC more complicated, hindering a single and consistent communication process (Mulhern, 2009). Bruhn and Schnebelen (2017) argue that the changed circumstances on the market side and the customer side fundamentally affect the IMC concept in the social media era. In order to cope with the new challenges, IMC need to become customer-centric and thus require new mutually linked principles – in marketing research and practice.

Having developed evolutionarily over the last two decades, the concept of IMC now needs to develop structurally. Hence, the social media era necessitates IMC extensions beyond innovative communication tools, not limited to finding ways to integrate new media in the set of communication measures, but going deeper and affecting the company at all levels (e.g., organisational structure, internal and external communication, philosophy and goals). This includes the improvement of obsolete IMC concepts through new valid IMC concepts (Bruhn & Schnebelen, 2017).

A relationship-based approach to IMC is particularly topical when facing the challenge of managing multiple stakeholders and making a customised dialogue and network communication in the social media epoch (Kaplan & Haenlein, 2010). Relationship communication requires development of new concepts capable of addressing communication and interaction among multiple stakeholders. Hence, in the social media era, IMC need to be relationship-oriented, focusing much of communication activities to the maintenance and

management of the long-term relationship with all internal and external stakeholders (Shin, 2013). The task of IMC is no longer to popularise the company's products, brands and services in a consistent manner, but to present a story that makes the customer actively participate in the story-telling process (Bruhn & Schnebelen, 2017).

The Internet is a cheaper way of distribution of communication than other ATL (*above-the-line*) marketing channels (TV, radio, the press, etc.). Furthermore, in the globalised economy, with e-commerce and other services becoming a prominent business sector, it is not just a leisure activity, but an integral part of a business. In the context of sustainable development, the Internet is still developing and improving, with ever new e-businesses or online shops emerging.

The consolidation of the role of social media in the society has lead businesses to focus more on communication with people through these very means. For businesses, it represents an opportunity to save resources and time and to build a positive image, while the buyer can learn and follow any information of interest from anywhere in the world, discuss it with friends, seek opinions, comments, objections. The development of technologies and communication options open up new possibilities for businesses – to involve their consumers not only in the popularisation, evaluation or promotion of existing products but also in the creation of new ones. This is made possible by the development of smartphones, which makes for the growth of a new marketing communication environment – mobile applications, which not only give consumers quick and concise access to information on specific products and services but also enable them to use those. Based on the above, the authors find that “such current IMC development features as the Internet as the marketing communication environment; digital promotion based on vast options of communication among consumers; an increased role of direct marketing in the creation of a loyalty system; a stronger link of marketing communications with buyers' market behaviour; selection of marketing communications based on stages of product life cycle etc.” (Praude & Bormane, 2012) enable businesses to achieve sustainability goals in the current business environment. IMC development features manifest themselves as trends and are affected by external environment factors, communication objects, and the specifics of the industry, businesses and products. It would be useful for businesses to increase the share of their marketing communication budget dedicated to direct marketing and personal selling, enhancing the role of personalised communications and developing communications with buyers based on their market behaviour at the relevant stage (Praude & Bormane, 2012).

In the context of sustainability, businesses, through IMC, need to create the product consumption value – the need for sustainable products, sufficient information about them, deliberate and well-thought-out buying decisions, and the consequences of excessive consumption, waste quantity.

Buyers' assessment of the impact of IMC tools for sustainability on buying decisions, empirical research

The research makes use of the results of studies conducted by the author – a survey of leading marketing specialists of Latvian food retail chains in 2017 and a survey of randomly selected buyers with a sample of 1,003 respondents in 2018. The survey data were processed and analysed using the MS Excel and SPSS software. The key faults identified from the survey of buyers served as a basis for drawing up conclusions. Answers to certain questions differed among respondents aged 65 and more, aged between 30 to 45, and aged up to 30. There were also differences in opinions among those with secondary education, with higher education, and with incomplete higher education, as well as among those with income up to 500 EUR/month (after taxes), with income over 500 EUR/month (after taxes), and with income over 1,000 EUR/month (after taxes). (When making Multiple Comparisons in data analysis, the author observed the principle of using the Tukey test where the dispersions of groups (age, gender, income, education) match and the Games-Howell test where the dispersions differ.)

The descriptive statistics on IMC tools for sustainability suggests that the following IMC tools for sustainability tend to have an impact (including a substantial impact) on consumers' buying decisions:

The author finds that the key factors in the context of sustainability when it comes to buying decisions are price, availability of domestic products, best-before dates, and understanding of environmental and social issues. In Table 1 the author has pooled the respondents' answers on what affects buying decisions with their answers on what substantially affects buying decisions. It follows from Table 1 that a key role in consumers' buying decisions, as per the author's classification (Bormane 2018), is played by price-related, product-related, geographic placement and technology-related, and digital promotion-related IMC tools. Hence, when the IMC approach is used for reaching the target audience, the above tools tend to contribute to consumers' buying decisions in the context of sustainability. The target audience can be reached through a complex application of IMC tools in the context of sustainability, both for specific campaigns and a marketing strategy. However, in order to ascertain benefits from IMC tools for sustainability and find out which IMC activities have contributed to buying decisions, the author recommends doing research before and after the campaigns and studying the factors of influence on buyers within a specific period of time.

Furthermore, Table 1 suggests that buying decisions in the context of sustainability are affected by factors such as price discounts, best-before dates, the loyalty system, payment options, availability of packaging supplies (for takeaway), product packaging etc.

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*Table 1 Key IMC tools for sustainability with impact on buying decisions, 2018
(made by the author after processing the buyer survey data in SPSS)*

No.	IMC tool for sustainability	Percentage of respondents
1.	Price discounts on Latvian-made products	87.7
2.	Price discounts on ecological products	80.7
3.	Best-before dates of Latvian-made products	79.1
4.	Proportion of Latvian-made products on offer	73.8
5.	Price discounts on products with environmentally friendly packaging	71.7
6.	Best-before dates of import products	70.7
7.	Linkage of loyalty card to payment options	69.9
8.	Availability of environmentally friendly shopping bags	68.9
9.	Waste sorting options	67.2
10.	Products with environmentally friendly packaging (that quickly decomposes in nature)	66.7

Given the variety of consumer audiences, it is important to find out not only which IMC tools for sustainability do not contribute to purchases, but also in which groups of age, education, income, gender etc. there might be differences that would be relevant in the planning and implementation of IMC.

The key IMC tools for sustainability predominantly rated by respondents as having no impact on buying decisions are presented in Table 2.

*Table 2 Key IMC tools for sustainability with **no** impact on buying decisions, 2018
(made by the author after processing the buyer survey data in SPSS)*

No.	IMC tool for sustainability	Percentage of respondents
1.	Barcode information on disposal, re-use, composition of packaging and its health impact, pictures of general use of product	75.6
2.	Mobile applications providing information on ecological and Latvian-made products available in-store	70.5
3.	Informational messages on vegan products (without ingredients of animal origin)	68.2
4.	Creation of social groups on social media for regular buyers of ecological products	67.7
5.	Consumer involvement in making new products, game element system drawing to brand loyalty programme to promote sales of ecological products (points, discounts, gifts, status etc.)	66.3
6.	Option of consumer involvement in making new products	62.8
7.	Location of import products in shop shelves	60.8
8.	Support for and contribution to conferences, education and instructional literature	59.4
9.	Structure of information on company website, with ecological and Latvian-made products singled out	56.7
10.	Proportion of import products on offer	56.3

The author finds that buying decisions tend to be unaffected by digital promotion-related IMC tools for sustainability, yet the author also believes that more thorough research would be needed on how the said IMC tools affect buying decisions for certain groups of respondents, i.e., whether or not there are different opinions among people of different education levels, ages, and income. This stems from the fact that the use of digital promotion tools involves the latest technologies and the knowledge, skills and habits of utilising the advantages of smartphones differ among generations.

Table 2 also suggests that consumers lack understanding of the necessity of contributions to education and instructional literature in dealing with sustainability issues and for the purposes of public awareness. Hence, information on the results of scientific research in the business environment becomes increasingly topical for public education. Still, the author sees a positive trend

from the viewpoint of promoting the consumption of domestic products – the location of import products in shop shelves does not matter to consumers and nor does their proportion in the assortment.

Conclusions

1. Important factors in consumers' buying decisions in the context sustainability are price, availability of domestic products, best-before dates, and understanding of environmental and social issues.
2. A key role in consumers' buying decisions is played by price-related, product-related, geographic placement and technology-related, and digital promotion-related IMC tools. Thus, when implementing an IMC approach to reaching the target audience, the above tools tend to contribute to consumers' buying decisions in the context of sustainability.
3. A complex application of IMC in specific campaigns or a marketing strategy in the context of sustainability helps reach the target audience. However, in order to ascertain benefits from IMC tools for sustainability and find out which IMC activities contribute to buying decisions, the author recommends doing research before and after the campaigns and studying the factors of influence on buyers within a specific period of time.
4. Consumers' buying decisions in the context of sustainability are affected by such factors as price discounts, best-before dates, the loyalty system, payment options, availability of packaging supplies (for takeaway), product packaging etc.
5. Consumers' buying decisions tend to be unaffected by digital promotion-related IMC tools for sustainability, yet the author believes that more thorough research would be needed on how the said IMC tools affect buying decisions for certain groups of respondents, i.e., whether or not there are different opinions among people of different education levels, ages, and income. This stems from the fact that the use of digital promotion tools involves the latest technologies and the knowledge, skills and habits of using smartphones differ among generations.
6. Consumers lack understanding of the necessity of contributions to education and instructional literature in dealing with sustainability issues and for the purposes of public awareness, Hence, information on the results of scientific research in the business environment becomes increasingly topical for public education.
7. There is a positive trend from the viewpoint of promoting the consumption of domestic products, as the location of import products in shop shelves does not matter to consumers and nor does their proportion in the assortment.

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THE POTENTIAL OF ACADEMIC ENTREPRENEURSHIP: A CHANCE FOR THE DEVELOPMENT OF THE SME SECTOR

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Abstract. *Globalization, social and economic progress are associated with such notions as: entrepreneurship, innovation and competitiveness. Both programmes and activities of states and international communities aim to improve the quality of life on a local and global scale by, e.g. reducing unemployment and supporting and increasing the competitiveness of entrepreneurs. The aim of the paper is to show the impact of selected features of tourism-related businesses at the level of their innovation. The paper presents the conditions that must be met in order to develop academic entrepreneurship in Polish universities. Legal conditions, forms of cooperation between universities and business, creation and commercialization of knowledge as well as shaping entrepreneurial attitudes were analysed.*

Keywords: *academic entrepreneurship, competitiveness, innovations*

Introduction

The term "academic entrepreneurship" has been introduced in Poland quite recently. Companies emerging from the union of business and science are still quite a unique phenomenon in the country. The experience of Western countries shows that such companies can function efficiently, grow, and even become global corporations. The majority of experts believe that the Polish market is still relatively young and developing, but the greatest successes of academic entrepreneurship are probably still ahead.

The aim of the research is to show the impact of selected features of tourism-related businesses on the level of their innovation. The paper presents the conditions should be met in order to develop academic entrepreneurship in Polish Higher education institutions. Legal conditions, forms of cooperation between universities and business, creation and commercialization of knowledge as well as shaping entrepreneurial attitudes were analysed.

In general, academic entrepreneurship is identified with every activity in the field of practical support for new companies which use scientific know-how and databases, and is commonly associated with all kinds of involvement of various scientific centres, academics and students in an economic activity that is not necessarily based on intellectual property. It is owing to such activity that the university begins to function based on market principles.

The expected effect is the popularization of commercialization of scientific know-how, which results in mutual benefits for both academics and their scientific and business partners. Owing to such good practices, the economy gains access to innovative solutions and, moreover, new types of business are being created. However, through the increasing self-employment and competitiveness of the economy, new jobs are created for people with higher education, which translates into a reduction of unemployment. Academic entrepreneurship is most often associated with the creation of the so-called spin off companies that grow from a scientific institution ("a mother organization") while remaining in close cooperation with it.

The element that influences the competitiveness of the economy through the strengthening of cooperation between scientific centres and business entities is certainly an increasingly popular phenomenon of academic entrepreneurship. It can be assumed that the factor influencing its development is the promotion of innovation in entrepreneurship among students by analysing case studies and engaging them in undertaking various types of projects related to economic activity.

Literature review

According to research conducted by the Polish Agency for Enterprise Development, entrepreneurship education in Polish universities is four times less effective than that offered to young people in the most developed countries (Tarnawa, Węclawska, Zadura-Lichota, & Zbierowski, 2016). Neither do young Poles learn how to meet the needs of the local community through their own businesses. After graduation, students often have no knowledge or tools to develop on the local market. One of the problems in Poland is unemployment among young people living in regions remote from major cities.

The broadly understood issues of entrepreneurship in the academic world have been discussed for a dozen or so years both in Poland and around the world. The introduced amendments to the Act on Higher Education and certain forms of supporting innovative activities are conducive to the development of cooperation between the world of science and business. That is how the concept of academic entrepreneurship has been spreading. Students and their entrepreneurial attitudes

play a significant role in academic entrepreneurship, regardless of the accepted definition.

The subject literature also includes the concept of spin-out, which is practically used interchangeably in relation to spin-offs (Matusiak, 2005).

- *Spin-off companies* are enterprises created as a result of the employees of the parent unit becoming independent yet using its material and intellectual potential and leaning on the results of research and development carried out in this unit. These companies are dependent and affiliated by capital or operations with the parent unit [e.g. legal services, accounting, marketing, leveraging the parent company's distribution channels].
- *Spin-out companies* are enterprises created as a result of the employees of the parent unit becoming independent yet using its material and intellectual potential and leaning on the results of research and development carried out in this unit. Enterprises of this type are independent of the parent organization.
- "*Grey spin-off*" – the term is used to determine the [unregulated] use of a university's infrastructure and intellectual property for the purposes of independent economic activity of the researchers [the law determines this not as infringement of intellectual property but as an ethical violation]

In Poland, the promotion of academic entrepreneurship is supported, e.g. through various types of initiatives, such as technology parks, business incubators and technology transfer centres.

Academic entrepreneurship

Academic entrepreneurs include people associated with universities and other entities operating in the area of science and research and development, i.e. researchers, students, PhD students and people interested in commercial ways of using the acquired knowledge by undertaking independent business activity.

As part of business activities, these people (Matusiak, 2011):

- develop and/or improve new products, technologies, organization and management systems,
- interpret the research results necessary to implement a license,
- introduce patents, utility models and rationalization ideas to business practice,
- design and implement product and service innovations for innovation trading.

Features characterizing an academic entrepreneur are presented in the following Table 1.

Table 1 Characteristics of an academic entrepreneur (own study based on Matusiak, 2011)

Feature	Characteristic
Diverse knowledge, contacts and opportunities	An academic entrepreneur operates simultaneously in many environments, spheres and worlds, which creates unique opportunities for development and broadening of knowledge and expanding contacts which create a potential background for expansion.
The ability to integrate a process	The ability to integrate the process of collecting, selecting and processing information with decision-making mechanisms and the ability to simultaneously synchronize work in different phases of the decision-making process, which allows not to postpone certain information, assumptions, hypotheses or assessments.
The possibilities of global operation	The possibilities of global operation, including broad contacts and frequent movement, which increase the possibility of identifying and using opportunities.
The ability to find oneself in the right place and time	A flexible identification of changes in the environment which allows determining the possibilities that bring the assumed effects.
Identification of the business role as an intellectual challenge and adventure	Allows maintaining a certain distance to one's role and can be a source of timeless inspiration.
Ethical behaviour	Attachment to ethical issues and employee development.

Interest in the subject of pre-incubation and incubation programmes, and its development, is a sign of changes taking place in Polish universities, which should result in strengthening activities in terms of supporting entrepreneurship and transfer of knowledge to the economy. Recently, there has been an increase in awareness of the role of intellectual entrepreneurship [including innovation] both in the world of science and business. It should be emphasized that academic entrepreneurship is a commonly used term, and there is no single definition that would fully reflect its essence. A summary of definitions based on a literature analysis is presented below.

Table 2 A review of the definition of academic entrepreneurship (own study)

Authors	Academic entrepreneurship
Matusiak & Matusiak	The concept of academic entrepreneurship is identified with activity to practically support new companies based on the know-how of people connected with scientific research (Matusiak & Matusiak, 2007).

continued Table 2

Guliński & Zasiadły	Academic entrepreneurship as a synonym for concepts such as technology entrepreneurship or innovative entrepreneurship and the entities created as part of it are referred to as techno-starters. Academic entrepreneurship is widely identified with all kinds of involvement of various scientific institutions, academics and students in economic activity, which does not need to be based on intellectual property (Guliński & Zasiadły, 2005).
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Although the formation of spin-off companies has been arousing interest for years, no single, generally accepted definition of this type of business entities has been developed so far. The spin-off concept itself is used to define an entity which is created as a result of separating from its parent in order to undertake activities that were difficult or impossible to implement within the previous framework. Problems with the spin-off interpretation appeared when the university or scientific institution got involved as one of the parties. Table 3 presents a summary of the most important definitions of the spin-off problem.

Table 3 A review of the definition of spin-off (own study)

Authors	SPIN - OFF
Authors of the American Bank of Boston report together with the Massachusetts Institute of Technology (MIT, 1997)	The broadest definition interpreting the phenomenon was developed by the American Bank of Boston together with the Massachusetts Institute of Technology (MIT, 1997). Although this report did not use the spin-off concept but only "MIT related companies", it was recognized that spin-offs are knowledge-based entities created both by university employees and its graduates.
E. Roberts & D. Malone	Malone presented a more specific understanding of this concept, interpreting spin-off mainly in the context of commercialization and transfer of knowledge and technology. It is a separate legal entity, created based on technology provided by the mother institution (parent organization) and supported financially by, e.g. a venture capital fund (Roberts & Malone, 1996).
Ray Smilor (University of California)	Smilor pointed out that when a former employee of the parent entity (in this case a university) is acting as the founding entrepreneur, this makes the child entity a spin-off, which has probably settled the scope of personal relations between the company and the university too schematically (Smilor, Gibson, & Ditrich, 1990).
N. Nicolaou & S. Birley (Imperial College of Science, Technology and Medicine)	Nicolaou and Birley presented a more flexible approach to the issue of personnel transfer, indicating that the necessary condition for a spin-off is transfer of technology (from the university), but not necessarily of scientific staff [in the sense of employees leaving the university] (Nicolaou & Birley, 2003).

continued Table 3

E. Roberts	Roberts also allowed the non-technological nature of the transfer (e.g. of staff only), which would allow classifying, e.g. consulting companies established by researchers as spin-offs (Djokovic & Soutaris, 2008).
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Apart from creating new knowledge, its transfer and dissemination, universities are increasingly implementing the so-called "third mission". One of the aims of the university is to facilitate the flow of knowledge and technology to the world of industry; therefore, they are treated as organizations supporting regional economic growth (Morrison, 2013). N. Nicolaou and S. Birley defined three types of spin-offs based on cross-linking and involvement of key factors [the human, the scientific institution, ownership connections] (Nicolaou & Birley, 2003).

Table 4 Types of spin-offs (own study based on Nicolaou & Birley, 2003)

Type of spin-offs	Characteristic
Orthodox	The entity is based on a researcher-inventor and the transferred technology.
Hybrid	The entity is based on the transferred technology, while research workers (all who are involved in the project, or only some) may remain with the university, acting as an advisor in the company (the scientific council), a controller (the supervisory board), etc.;
Technology	The entity is based on technology transferred from the university, however, the academic (inventor) has no contact with the newly created company. However, they may hold shares in it, or provide advisory services to it.

Development of academic entrepreneurship in Poland

Issues related to cooperation in science and business, commercialization of technology and scientific knowledge or the operation of spin off companies have been of interest to the world of science, business, politics and media (Matusiak, 2005). Despite the fact that the representatives of science or business hope for new technology transfer channels to be launched, this area still raises many fears and doubts.

An analysis of numerous studies, collations, and statistics devoted to the broadly understood subject of academic entrepreneurship allows a conclusion that academic entrepreneurship in Poland is developing, but it can be assumed that promoting successes born from cooperation between science and business brings the expected results. In-depth research on the development of academic entrepreneurship in Poland, carried out on behalf of the Polish Agency of

Entrepreneurship Development (PAED) (PARP, 2017) demonstrates that training and entrepreneurship courses for both academics and lecturers of the university, as well as students, are needed; because Poland has huge, untapped potential for academic entrepreneurship.

The innovative activity of Polish enterprises is the subject of many discussions in economic and political circles. According to the Central Statistical Office (CSO, 2016), in the years 2013-2015, 18.9% of industrial enterprises and 10.6% of service providers demonstrated innovative activity (compared with 18.6% and 12.3% in the years 2012-2014). New or significantly improved product or process innovations were introduced by 17.6% of industrial enterprises and 9.8% of service providers (in 2012-2014, 17.5% and 11.4%, respectively). Spending on innovative activity in 2015 amounted to approx. PLN 31 billion in industrial enterprises and approx. PLN 12.9 billion in service providers (PLN 24.6 billion and PLN 12.2 billion in 2014, respectively) (see Figure 1). Many statistics and surveys, including the PARP report (Zadura-Lichota, 2015) show that Polish enterprises in the EU are at the end of the list of innovative entities (Melnarowicz, 2017).

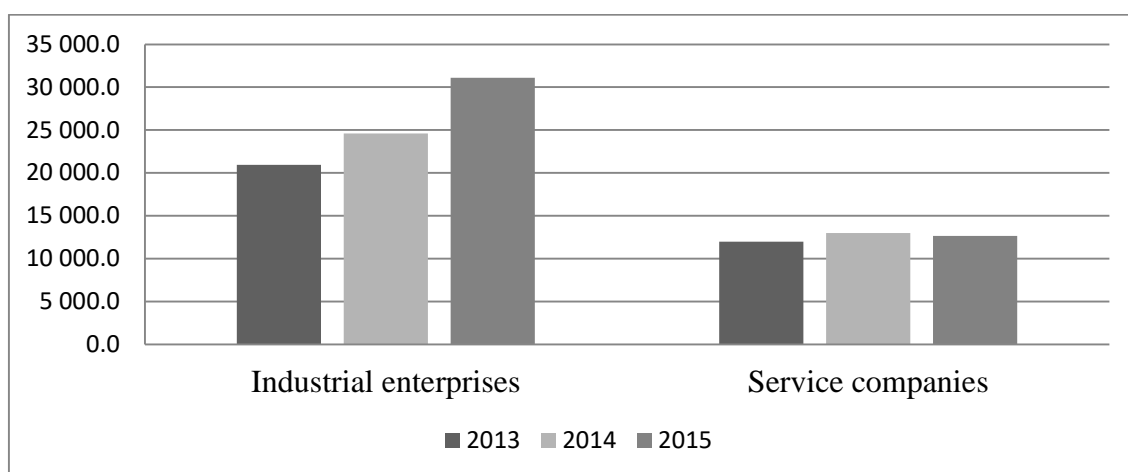


Figure 1 Spending on innovative activities in Poland (PLN)
(own study based on CSO, 2016)

A strong, although small group of innovators identified by public statistics, is prospering in Poland. This includes an even smaller group of beneficiaries of public support, which achieves above-average results regarding innovative activity as compared with the total population of enterprises. This group of beneficiaries, and its sub-group, has small but very promising potential in the area of innovation. These companies are innovative and competitive on a European or global scale. What remains is to carry out research, analysis and training to release

the innovative potential in Poles. Unfortunately, the group of micro-enterprises is not included in public statistics measuring the level of innovation in enterprises.

Upon analysing the development of a start-up in Poland, one can conclude that a large part of innovations is born among the smallest business entities. Also a large part of new, small entities are registered for the purposes of implementing an innovative business idea (Zadura-Lichota, 2015). When asked about associations with the term "innovative company" (see Fig. 2, respondents participating in a study on enterprise innovation in Poland (Zadura-Lichota, 2015) replied that it was primarily associated with modernity, the future, following the spirit of the times (23% of indications), new technologies (23%), development and improvement in an enterprise (17%). In the case of new products and services as well as innovative solutions, the results were lower (less than 10%).

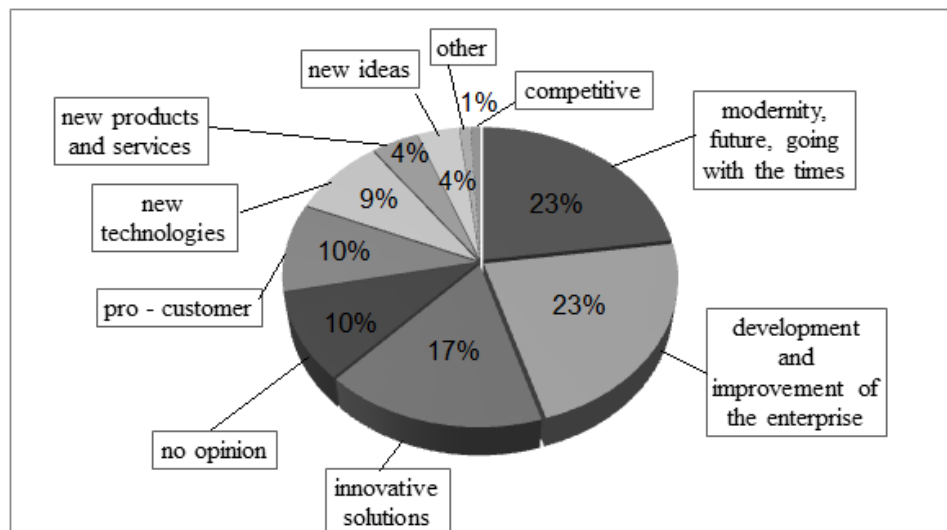


Figure 2 Micro-entrepreneurs' associations with the term "innovative company" (in %, N = 1277) (own study based on Zadura-Lichota, 2015)

In the search for examples of best practice, it is impossible not to mention the laureates of the "New Tech New Travel" contest. The organizer of the competition was the Polish Tourist Organization, and the Ministry of Sport and Tourism took its patronage. The competition's mission was to search for and promote innovative technological solutions for tourism, with particular emphasis on the potential of young, innovative companies (start-ups). In addition, the aim of the competition was to discover new technology products that facilitate travel, improve management and enable the promotion of Polish companies and tourist regions. That is how tourism entrepreneurs can see the best technological projects and new trends in technologies, while managers of young technology companies will learn the potential and needs of the tourism industry. The cooperation between Information and Communication Technologies and the tourism industry

will enable creating modern solutions necessary for the development of e-tourism, m-tourism, as well as facilities that will provide modern tourists with a sense of security and access to the best information that influences on booking behaviour, technology use in travel, key markets and trends (Ochoa Siguencía, 2018). The winners were awarded in two categories, business to business (B2B) and business to consumer (B2C).

*Table 5 Winners of the "New Tech, New Travel" competition
(own study based on Home, n.d.)*

Company name	Project description
Winner in the B2B category Telmedicin Sp. z o. o.	Online medical consultations in the patient's language while traveling. This is one of the first telemedicine platforms in Poland that allows consulting a doctor in a mother tongue while traveling.
Distinction in the B2B category busradar.pl	A browser for domestic and international bus connections acting as a portal and application.
Distinction in the B2B category BedBooking	A mobile PMS (Property Management System) system is a dedicated tool for people who rent accommodation in small, non-hotel accommodation facilities.
Distinction in the B2C category XOXO WiFi	XOXO WiFi is a mobile hotspot; a small device provides unlimited access to high-speed 4G Internet in over 100 countries around the world, without the need to look for stores that carry SIM cards and to handle problems with registration of these cards. The device has a patented technology that connects to the best local network available in the area.

Conclusion

University curricula and student internships should be verified and adapted to market needs. The academic environment should show greater willingness and initiative in establishing effective cooperation with the business environment. It is necessary to set development directions and, at the same time, to support young entrepreneurs in testing and improving their ideas and adapting them to market needs. It also seems crucial to conduct entrepreneurship training, establish contacts with entrepreneurs in order to broaden students' knowledge and equip them with skills that allow them to develop their own business.

In Poland, an increase in cooperation among companies, development of the service sector and an increased awareness of the importance of innovation is observed, as well as growth of the start-up market and an increase in private expenditure on R & D. "Will these changes be sufficient to maintain economic

growth and develop the innovation of Polish companies? Probably not, because the real change we need is systemic" (Zadura-Lichota, 2015).

Summary

The article presents the conditions that must be met in order to develop academic entrepreneurship in Polish universities. Legal conditions, forms of cooperation between universities and business, creation and commercialization of knowledge as well as shaping entrepreneurial attitudes were analysed.

The element that influences the competitiveness of the economy through the strengthening of cooperation between scientific centres and business entities is certainly an increasingly popular phenomenon of academic entrepreneurship. It can be assumed that the factor influencing its development is the promotion of innovation in entrepreneurship among students by analysing case studies and engaging them in undertaking various types of projects related to economic activity.

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FINANŠU PRATĪBAS TENDENČU ANALĪZE

Analysis of Financial Literacy Trends

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Abstract. *The following skills, such as planning of personal finances, formation and diversification of savings, augmentations of personal capital and open-mindedness to new initiatives in entrepreneurship activities, enhance financial sustainability of the population, and are decisive for the quality of life. Every person in certain circumstances can be financially and economically active, if he/she has got such a competence as financial literacy, which is much more important in the course of life than a level of income or professional qualifications, because, hereafter the governing factor will be not a possession of financial instruments by the person, but skills of the effective management for an achievement of own objectives.*

The aim of the research – to analyse the financial literacy of young people in Daugavpils. Methods used in the research: the monographic method – a theoretical description of financial literacy, the graphical method – a graphical representation of obtained results, the interview method (questionnaire) – data acquisition required for the research, the statistical method – analysis of statistical information, the comparative method – a description of obtained data and drawing conclusions.

The financial literacy of Daugavpils youth has been researched and evaluated.

Keywords: *financial literacy, financial literacy index, financial products, young people in Daugavpils.*

Ievads

Introduction

Attīstās uzskats, ka jāveicina katra iedzīvotāja, katras mājsaimniecības izpratne par finanšu pasauli, tās piedāvājumiem un iespējamiem riskiem, jo finanšu pakalpojumi mūsdienās ir pieejami ikvienam cilvēkam. Līdz ar to, ikvienam ir svarīgi veiksmīgi rīkoties ar savām finansēm, lai iegūtu stabilitāti dzīvē un nodrošinātu sevi un apkārtējos cilvēkus ar labklājību.

Starpdisciplinārā kontekstā, izprotot finanšu pratību kā prasmi lietot vienkāršākos finanšu pakalpojumus, spēju apzināties savu finansiālo iespēju robežas, mainīt tās un arvien tiekties pēc personīgās labklājības uzlabošanas, finanšu pratības jēdziens saistās ne tikai ar ekonomikas, bet arī vadības,

psiholoģijas, pedagoģijas un daudzām citām zinātņu nozarēm.

Demogrāfiskā situācija Latvijā ar katru gadu pasliktinās. Iedzīvotāju skaita samazināšanos galvenokārt noteica negatīvais dabiskais pieaugums un emigrācija. Joprojām turpinās sabiedrības novecošanās process. Latvijā ir samazinājies jauniešu skaits attiecībā pret Latvijas darbaspējīgo iedzīvotāju kopskaitu. Tieši tāpēc, ņemot vērā, ka jaunieši ir būtisks tautsaimniecības attīstības faktors, ir nepieciešams paaugstināt jauniešu finanšu pratību un veicināt jauniešu uzņēmējspēju. Jaunieši ar augstu finanšu pratības līmeni būs tie, kas varētu dot lielāku pienesumu valsts ekonomikā, tādējādi ir svarīgi izpētīt finanšu pratības līmeni jauniešu vidū.

Pētījuma aktualitāti var pamatot ar to, ka gan sabiedrībā, gan starp lēmumu pieņēmējiem valsts institūcijās un uzņēmumos notiek diskusija par Latvijas iedzīvotāju, tostarp arī jauniešu, finanšu pratības uzlabošanu.

Pētījuma mērķis - pētīt un analizēt Daugavpils jauniešu finanšu pratību.

Pētījuma uzdevumi:

- veikt teorētisko avotu izpēti par finanšu pratības jēdziena būtību un finanšu pratības izvērtēšanas metodēm;
- veikt Daugavpils jauniešu aptauju ar mērķi izpētīt viņu finanšu pratību.

Pētījumā izmantotās metodes: monogrāfiskā metode - finanšu pratības teorētiskais apraksts, grafiskā metode – iegūto rezultātu grafiskā attēlošana, aptaujas metode (anketēšana) - nepieciešamās informācijas iegūšana pētījumā, statistiskā metode – statistiskās informācijas analīze, salīdzināšanas metode – iegūto datu aprakstīšana un secinājumu izstrāde.

Finanšu pratības teorētiskie aspekti *Theoretical aspects of financial literacy*

Finanšu pratība tiek definēta kā zināšanu un prasmju kopums, kas personai ļauj izprast un sekmīgi organizēt savu finanšu pārvaldīšanu un pieņemt pārdomātus

lēmumus par dažādu finanšu pakalpojumu izvēli un to izmantošanu, nodrošinot savu privāto finansiālo stabilitāti un ilgtspēju.

Cilvēkam, kurš izprot finanšu lietas, ir zināšanas ne tikai par finansēm, bet arī par ekonomiku kopumā un viņš spēj šīs zināšanas izmantot savas turpmākās labklājības veicināšanai un finansiālai izaugsmei, lai sasniegtu savus privātos finansiālos mērķus (Patērētāju tiesību aizsardzības centrs, 2014).

Ir vairākas finanšu pratības definīcijas, ko izmanto dažādi pētnieki un valsts organizācijas. Finanšu pratība tiek definēta kā zināšanas, spēja vai prasmes pielietot šīs zināšanas, zināšanas indivīda skatījumā, finanšu uzvedība un finanšu pieredze. Bieži vien finanšu pratība tiek definēta kā noteiktu dimensiju kopums, fokusējot uzmanību uz dažādiem finanšu pratības koncepcijas elementiem,

piemēram, naudas lietpratību, cenu lietpratību, budžeta lietpratību vai parādsaistību lietpratību.

Finanšu pratība ir zināšanu un prasmju kopums, kas nepieciešams, lai cilvēki finansiāli nodrošinātu sevi un aktīvi rīkotos finanšu produktu un pakalpojumu tirgū (Tomášková, Mohelská, & Němcová, 2011).

Finanšu pratības jēdziens katrā literatūras avotā ir definēts dažādi, taču visām šīm definīcijām piemīt vienota nozīme. Finanšu pratība ir gan zināšanas, gan prasmes, kas katram no mums ir nepieciešamas, lai pieņemtu pareizus lēmumus finanšu produktu izvēlē, kā arī lai racionāli plānotu savu personīgo budžetu un veidotu uzkrājumus neparedzētām situācijām. Labas finanšu pratības zināšanas ļauj katram no mums izvēlēties izdevīgākos finanšu piedāvājumus un sasniegt labklājības līmeni.

Lai veidotos vienota izpratne par finanšu pratības jēdzienu, Latvijas finanšu un ekonomiskās izglītības veicināšanas partneri ir izveidojuši stratēģisko vīziju jeb redzējumu, kāda būtu vēlamā Latvijas sabiedrības attīstība finanšu pratības jomā.

Kopš vienošanās par Latvijas iedzīvotāju finanšu pratības stratēģijas 2014. – 2020. mērķiem un tās ieviešanas Memoranda parakstīšanas 2014.gada 24.februārī finanšu pratības veicināšanas partneri Latvijā ir nodrošinājuši daudzveidīgas aktivitātes, izstrādājuši jaunus mācību materiālus un interaktīvus rīkus. Pamata kompetenču standarts finanšu pratībā pieaugušajiem ir pirmais solis virzienā uz vienotu finanšu pratības mūžizglītības programmu Latvijā. Šis dokuments ir pirmais finanšu pratības kompetenču standarts Baltijā, kas balstīts pasaules attīstīto valstu pieejā sabiedrības finanšu pratības pilnveides jautājumiem.

Kompetenču standartā ietverti 23 finanšu pratības aspekti tematiskā dalījumā:

- nauda un darījumi (nauda, ienākumi, maksājumi un pirkumi, cenas finanšu uzskaitē un līgumi, ārvalstu valūta un norēķini ārvalstīs);
- privāto finanšu plānošana un vadība (budžets, privāto finanšu vadība, uzkrājumi, pensionēšanās);
- kredīti un parādi (kredīti, galvojumi kredītiem, parādi un to vadība, fiziskās personas maksātspēja);
- risks un peļņa (ieguldījumi, privāto risku novērtēšana, risku vadība);
- finanšu un ekonomiskā vide (finanšu pakalpojumu vide, patērētāja tiesības un pienākumi, izglītība, pakalpojumu drošība, nodokļi un sabiedriskie izdevumi, ārējās finanšu un ekonomiskās vides ietekme).

Katrā no šīm kategorijām ir aprakstītas zināšanas, kurām būtu jābūt cilvēkiem, konkrētā zināšanu līmenī. Katra no grupām ir sadalīta zināšanu novērtēšanā, katrā sadaļā cilvēkam var būt pamata snieguma līmenis vai augstākā snieguma līmenis. Pēc šī novērtējuma un zināšanu sadalīšanas var spriest, kādā

līmenī cilvēkiem ir zināšanas konkrētā sadalījumā (Pamata kompetences finanšu pratībā pieaugušajiem, 2017).

Jauniešu finanšu pratības pētījumi Eiropā un Latvijā *Youth financial literacy research in Europe and Latvia*

Daudzās pasaules valstīs regulāri tiek novērtēta iedzīvotāju finanšu pratība. Vairākos pētījumos matemātikas zināšanu pārbaude ir viena no vērtēšanas instrumentu sastāvdaļām, jo prasme veikt matemātiskus aprēķinus ir viena no finanšu pratības elementiem. Ja cilvēkam ir vājas zināšanas matemātikā, viņš neiesaistās finanšu lietās vai iesaistās, bet neizvēlas pareizo produktu, jo ir grūti salīdzināt piedāvājumus.

Balstoties uz Ekonomiskās Sadarbības un Attīstības organizācijas (the Organisation for Economic Co-operation and Development (OECD)) definīciju, finanšu lietpratība ir jānovērtē, ņemot vērā visas četras dimensijas: 1) izpratne un zināšanas; 2) iemaņas; 3) uzskati un attieksmes; 4) uzvedība. Ir pētnieki, kas analizē visas dimensijas, daži koncentrējas tikai uz atsevišķām. Tas ir atkarīgs no pētījuma dziļuma, kā arī no pētnieku viedokļa par to, kas ir finanšu lietpratība – zināšanas, iemaņas un uztvere, vai viss kopā (Titko, 2013; Ciemleja, 2013).

2011.gadā Čehijā veiktā pētījuma (autori Hana Tomaškova, Hana Mohelska, Zuzana Nemcova) “Finanšu prasmes izglītībā” rezultāti liecina, ka finansiāli izglītoti iedzīvotāji labi pārziņina naudas un cenu jautājumus un spēj atbildīgi pārvaldīt savu personīgo budžetu. Finanšes ir ikdienas dzīves svarīga sastāvdaļa, un finanšu zināšanas ir labākais veids, kā novērst iedzīvotāju pārmērīgu parādsaistību. Pēc pētījuma rezultātiem var spriest, ka tomēr skolēni neiegūst plašas zināšanas finanšu jomā, kas palīdzētu attīstīties tiem nākotnē (Tomášková, Mohelská, & Němcová, 2011).

2015.gadā veiktajā pētījumā (autori Antonia Grohmann, Roy Kouwenberg, Lukas Menkoff) ir secināts, ka ir divi galvenie faktori, kas ietekmē bērna pieredzi finanšu prasmēs, tas ir, ģimenes un skolas faktors. Pirmkārt, ir noskaidrots, ka vecāku finansiālā socializācija pozitīvi ietekmē bērnu finanšu prasmes. Otrkārt, ietekmē skolas, netieši uzlabojot finanšu prasmi, rēķināšanas prasmi, kas ir pamatprasme (Grohmann, Kouwenberg, & Menkhoff, 2015).

2018.gadā veiktajā pētījumā, kura autori ir Kenny Skagerlund, Thérèse Lind, Camilla Strömbäck, tika secināts, ka finanšu pratības virzītājspēks ir spēja saprast skaitļus un izvairīties no emocionālas attieksmes pret skaitļiem, kas ietekmē indivīda ikdienas iesaistīšanos matemātikas un finanšu lēmumu pieņemšanā. Tādējādi, mērķtiecīgi uzlabojot rēķināšanas prasmi, vienlaikus varam paaugstināt finanšu prasmes līmeni sabiedrībā (Strömbäck, Lind, Skagerlund, Västfjäll, & Tinghög, 2018).

Latvijā Finanšu un kapitāla tirgus komisija (FKTK) kā nacionālais koordinators finanšu pratības veicināšanas jomā ir izstrādājusi mērījumu sistēmu un tās rezultātu apkopošanas metodiku – Latvijas iedzīvotāju finanšu pratības indeksu. Indekss ietver FKTK veiktās iedzīvotāju finanšu pratības ikgadējās socioloģiskās aptaujas rezultātus jeb pozitīvo punktu skaitu, kas raksturo iedzīvotāju kopējo finanšu pratības līmeni, kā arī nepieciešamos statistiskos rādītājus, kas raksturo Latvijas mājsaimniecību finansiālo stabilitāti, to izaugsmi un ilgtspēju.

Sākot ar 2014. gadu, FKTK veic Latvijas iedzīvotāju finanšu pratības ikgadējo aptauju, t.sk. OECD INFE finanšu pratības mērīšanas bāzes aptauju, lai salīdzinātu finanšu pratības līmeni starp OECD valstīm. FKTK organizē un koordinē komunikāciju ar sabiedrību par šī indeksa ikgadējām izmaiņām (FKTK klientu skola, 2014).

Finanšu pratības indeksu veido iedzīvotāju finanšu pratības ikgadējās socioloģiskās aptaujas kopējais rezultāts jeb pozitīvo/negatīvo punktu summa septiņos finanšu pratības tematos, kas raksturo kopējo finanšu pratības līmeni kārtējā gadā (FKTK klientu skola, 2017).

Finanšu pratības indeksa pamatā ir punktu piešķiršana par konkrētām respondentu sniegtajām atbildēm. Indeksa punktu kopējais skaits svārstās no - 76 līdz 99.

Lai varētu veikt finanšu pratības kompleksu izvērtēšanu, ir nepieciešami noteikti kritēriji. Šajā sakarā finanšu pratības kompleksai izvērtēšanai ļoti parocīgi ir FKTK pētījumi "Latvijas iedzīvotāju finanšu pratība", kur, lai noteiktu Latvija iedzīvotāju finanšu pratības indeksu, tiek vērtētas Latvijas iedzīvotāju zināšanas par dažādiem finanšu pakalpojumiem, kā arī to izmantošanas paradumi.

Kā jau iepriekš tika norādīts, minētie pētījumi ir labs avots finanšu pratības kompleksai izvērtēšanai, kā arī šīs izvērtēšanas ietvaros ir būtiski salīdzināt, kā šie apakšindeksi mainās.

Daugavpils jauniešu finanšu pratības veidošanās analīze *Analysis of financial literacy of youth in Daugavpils*

Lai gan literatūrā un avotos atrodamas vairākas metodes, ar kurām pētnieki centušies mērīt finanšu pratības līmeni, viennozīmīgi labākais risinājums nav apstiprināts. Tas rada visai nopietnus ierobežojumus, jo pētījumu rezultāti, kas balstīti uz dažādām metodoloģijām, savā starpā nav salīdzināmi. Tādēļ, lai izvairītos no šādas situācijas, pētījuma autores izvēlējās finanšu pratības līmeni Daugavpils jauniešu vidū mērīt ar tādām metodēm, kas ļauj citviet un citā laikā veikt pētījumu rezultātus salīdzināt ar šī darba ietvaros iegūstamajiem, un otrādi – padarīt šo darbu par derīgu salīdzinājumam ar citiem līdzvērtīgiem pētījumiem. Līdz ar to, šajā gadījumā, lai izpētītu Daugavpils jauniešu finanšu

pratību, tika izvēlēta kvantitatīvā metode – anketēšana. Tās ietvaros tika aptaujāti Daugavpils studējošie jaunieši, lai noskaidrotu viņu finanšu pratības līmeni.

Lai noteiktu Daugavpils jauniešu finanšu pratību, autores veica finanšu pratības noteicošo rādītāju atlasu, kas lielā mērā balstījās uz iepriekš minēto finanšu lietpratības definīciju. Izvēlētie rādītāji bija tādi, kuri fiksē gan Latvijas iedzīvotāju iesaistes līmeni finanšu pakalpojumu izmantošanā, gan noskaidro zināšanas un ierasto praktisko rīcību saistībā ar dažādiem finanšu jautājumiem. Kā galvenie indikatori aptaujā bija plānošana, informētība, finanšu pakalpojumi un kredīti. Aptaujā netika atsevišķi iekļauti tādi indikatori kā uzkrājumi vai pensijas, kas nereti ir būtiski rādītāji socioloģiskajās aptaujās par finanšu pratību, jo šajā gadījumā tas īsti neattiecas uz konkrētā pētījuma mērķauditoriju, tomēr tie tika sintezēti citos jautājumos. Zināmā mērā izvēlētie rādītāji tika balstīti uz ideju, ka finanšu lietpratība ir tieši saistīta ar indivīda izpratnes līmeni par ekonomikas pamatjautājumiem, finanšu koncepcijām un terminiem.

2017.gadā tika veikta Daugavpils studējošo jauniešu aptauja. Aptaujas mērķa grupa jeb izlases ģenerālkopa ir visi Daugavpils pilsētas augstskolu un to filiāļu studenti vecumā no 18 līdz 25 gadiem. Studējošo jauniešu skaits Daugavpilī vecumā no 18 līdz 25 gadiem ir 1711 studenti. Datus par studējošo jauniešu skaitu izdevās iegūt no visām sešām Daugavpilī esošajām augstskolām un to filiālēm.

Izlases lielums tika aprēķināts pēc formulas (1.) (Orlovska, 2007, 71.):

$$n = \frac{t^2 * S^2 * N}{t^2 * S^2 + \Delta_x^2 * N}; \quad (1.)$$

kur: N- ģenerālā kopuma apjoms,
t- varbūtības koeficients,
S²- izlases dispersija,
Δ_x – pieļaujamā robežklūda.

Aptaujas izlases parametri ir šādi:

t = 1,96, tā kā rezultātu ticamība būs 95%,
S² = 0,25, tā kā nav zināma pētāmās pazīmes daļa ģenerālkopā,
Δ_x = 0,05, tā kā izlases klūdas maksimāli pieļaujamais lielums būs 5%.

$$n = \frac{1,96^2 * 0,25 * 1711}{1,96^2 * 0,25 + 0,05^2 * 1711} = 314 \text{ studenti}$$

Ideālais izlases apjoms būtu 314 respondenti, bet aptaujā piedalījās tikai 200 respondentu. Līdz ar to, var secināt, ka būs lielāka iespējamā klūda.

Lai novērtētu iegūto aptaujas datu ticamību, tiek izmantota robežklūdas varbūtība. Robežklūda tiek aprēķināta matemātiski, pamatojoties uz varbūtības

teoriju. Analizējot un interpretējot pētījumā iegūtos rezultātus, to vajadzētu ņemt vērā.

Robežklūda tiek aprēķināta pēc sekojošas formulas (1.) (Orlovska, 2007, 69.):

$$\Delta w = t * \sqrt{\frac{w(1-w)}{n} * (1 - \frac{n}{N})}; \quad (1.)$$

kur: Δw – robežklūda,

t- koeficients, kas pie 95% varbūtības ir vienāds ar 1.96,

w – relatīvais biežums izlasē (izlases daļa),

n- respondentu skaits,

N- ģenerālā kopuma apjoms.

Lai noteiktu robežklūdu, ir jāzina nesvērts respondentu skaits attiecīgajā grupā un izlases daļa. Izmantojot šos lielumus, var atrast robežklūdas robežas + / - procentos ar 95% varbūtību.

1.tabula. Respondentu atbilde uz jautājumu "Kā Jūs novērtētu savu finanšu lietpratību?" (%) (autoru veidota pēc aptaujas rezultātiem)

Table 1 Respondents answer to the question "How would you rate your financial literacy?"% (authors based on the results of the survey)

Respondentu atbilde	Respondentu atbilžu sadalījums (% no aptaujāto skaita)
Esmu ļoti labi informēts par finanšu lietām	6,5
Esmu labi informēts	58
Esmu vāji informēts	27
Esmu ļoti vāji informēts	8
Cits	0,5

Izmantojot respondentu iegūtos datus, var aprēķināt statistisko kļūdu (2):

$$\Delta w = 1,96 * \sqrt{\frac{0,065(1-0,065)}{200} * (1 - \frac{200}{1711})} = 0,032 = 3,2\% \quad (2)$$

Līdz ar to, ja pētījuma rezultātā no visiem aptaujātajiem Daugavpils studējošajiem jauniešiem (respondentu skaits n=200) tiek iegūta mērķa grupa 6,5%, kas ir ļoti labi informēti par finanšu lietām, tad ar 95% varbūtību var teikt, ka statistiskā kļūda šeit ir $\pm 3,2\%$ robežās.

Pēc aptaujas datiem var redzēt, ka tie jaunieši, kuri aptaujā atbildēja, ka ir ļoti labi informēti par finanšu lietām, nav informēti par tādiem finanšu produktiem kā dzīvības uzkrājošā apdrošināšana (61,5%), 3.pensiju līmenis (46,15%), ilgtermiņa kredīts (46,15%), īstermiņa kredīts (46,15%), kā arī par krājkontu (46,15%) un hipotekāro kredītu (38,46%).

Savukārt, tie jaunieši, kuri aptaujā atbildēja, ka ir labi informēti par finanšu lietām, nav informēti par šādiem finanšu produktiem: dzīvības uzkrājošā apdrošināšana (64,65%), ilgtermiņa kredīts (35,34%), īstermiņa kredīts (34,48%), kā arī hipotekārais kredīts (31,9%) un 3.pensiju līmenis (29,3%).

Pēc autoru domām, tiem jauniešiem, kuri uzskata, ka ir ļoti labi vai labi informēti par finanšu jautājumiem, būtu jāzina par tādām pamata lietām kā dažādiem kredītu veidiem, krājkontu un uzkrājošo dzīvības apdrošināšanu.

Līdz ar to var secināt, ka lielākā daļa jauniešu, kuri piedalījās pētījumā, pārāk augstu novērtē savu finanšu lietpratību, jo viņu zināšanas šajā jomā nav tik labas, kā viņi paši uzskata. Pētījumā veiktās aptaujas rezultāti parāda, ka Daugavpils studējošo jauniešu zināšanas finanšu jomā ir jāpilnveido.

Priekšlikumi *Proposals*

Studējošajiem jauniešiem būtu nepieciešama lielāka informētība par dažādiem finanšu instrumentiem, kas mūsdienā mainīgajos tirgus apstākļos tikai pieaug, jo pretējā gadījumā lēmumu pieņemšana notiks daudz grūtāk.

Izglītības politikas veidotājiem kopā ar augstskolām būtu ieteicams vienoties un izstrādāt kopīgu, koordinētu un vispusīgu rīcību studentu finanšu pratības vecināšanas pasākumu īstenošanā.

Augstskolām būtu ieteicams sadarboties ar sabiedriskās domas izpētes aģentūrām, kas palīdzētu noskaidrot, kas ir tie finanšu aspekti, kuros visvairāk trūkst informācijas jauniešiem, tādējādi, izstrādājot jaunas iniciatīvas, tās nebūtu vispārīga rakstura, bet orientētas uz konkrētiem finanšu aspektiem.

Izglītības un zinātnes ministrija varētu izstrādāt skolēnu finanšu pratības standartu, norādot, kādām kompetencēm finanšu jomā jābūt skolēniem. Sadarbībā ar Izglītības pārvaldēm Izglītības un zinātnes ministrija varētu sniegt metodisku atbalstu skolotājiem finanšu pratības apguvē skolēniem. Izglītības pārvaldes skolēniem varētu nodrošināt e-atbalstu zināšanu apguvē finanšu jomā. Finanšu ministrija sadarbībā ar Izglītības un zinātnes ministriju varētu rīkot finanšu pratības konkursus jauniešiem.

Summary

Financial literacy is a set of skills and knowledge that allow persons to understand how the economy works; it helps to make reasonable decisions in their own self-interest, for the benefit of the family, community, and country.

A significant indicator in the assessing of financial literacy is the index of financial literacy formed by the overall result of an annual sociological survey of population financial literacy that is the sum of positive/negative points in the seven subjects of

financial literacy, which characterizes the total level of financial literacy in a particular year.

The research results prove young people's overall level of financial literacy was not high. The information provided by questionnaires can lead to the conclusion that the major part of the respondents thought that in case of shortage of cash to cover monthly expenses, it was better to take money from personal savings than to borrow them from a bank. This in its turn creates the contradiction - if the respondents did not make savings on regular basis, then in case of necessity finances had to be found somewhere else anyway. At the same time, it has been revealed that the respondents preferred to use nonbank "quick loans" to cover regular needs, rather than taking a bank loan.

In general, the authors of the research conclude that the part of respondents who worked in parallel with their studies were better oriented in personal finances. These individuals indicated not only keeping written records of expenditures and incomes, which means they planned their budgets, but they were better in estimation of their financial possibilities too. At the same time, many of the respondents stated they could take financial responsibilities, which were non-proportional to their monthly income.

However, taking into consideration the fact that the major part of respondents admitted that knowledge in the field of finances was not obtained sufficiently in higher educational institutions, it is recommendable for education policymakers to unite with higher educational institutions and develop coordinated comprehensive actions to implement activities for encouragement of studying financial literacy by students.

However, cooperation with public opinion research agencies would be recommendable for higher educational institutions, as it would help them to find out the financial aspects in which young people have major information gaps, and thus drafting new initiatives would not be abstract and of a general nature but focused on specific financial aspects.

The Ministry of Education and Science, the Ministry of Finance as well as municipalities should improve the cooperation in order to ensure accessibility of additional information about financial literacy. The Ministry of Education and Science could design the standard of financial literacy for pupils, indicating competences in the field of finance schoolchildren would have to obtain. The Ministry of Education and Science in cooperation with education authorities could provide teachers with methodological support for educating pupils about financial literacy. The education authorities could ensure e-support in learning and acquisition of knowledge in the field of finances. The Ministry of Finance together with the Ministry of Education and Science could arrange financial literacy contests for young people.

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CONTENT AND EVALUATION OF INNOVATIVE COMPONENTS OF HUMAN POTENTIAL IN THE RATINGS OF UNIVERSITIES

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Abstract. *The aim of the research is to study the content of the innovation component of human potential in the rankings of universities, its assessment through the prism of the educational environment and its individual elements. The article considers the innovation component of human potential from the standpoint of its importance on the scale of the fourth industrial revolution. The research focuses on the formation, development and realization of human potential in the system of higher education. The analysis of global, national, regional ratings of the performance of universities is presented. Ratings are abstracted from nationality and classified by target and structural features. The ratings are classified according to the target and structural features. Features of the content and evaluation of human potential and its innovative component in the structure of ratings of various groups are revealed. The directions for improving the rating structure are identified, taking into account the essential importance of the innovative component of human potential for the modern economy. The characteristics of the structure of the rating allowing estimating the innovative component of human potential is given. An innovative component of the rating of universities was developed. A list of indicators was synthesized, which is the basis for the implementation of the rating assessment of the innovation component of human potential. Using the method of mathematical modeling developed an innovative component of the ranking of universities.*

Keywords: *human potential, innovative component, universities, university rating.*

Introduction

Intellectual production requires specialists to be able to set and solve the problems of designing innovative products, innovating their production, implementation and use by means of modern information and communication technologies. This ability is based on the innovative component of human potential. The formation, development and realization of human potential is

largely determined by the existing system of education, with reference to the topic of the work - primarily higher education. Accordingly, the activities of higher education institutions focused on the needs of a dynamic labour market come to the forefront. In modern conditions, there is a tendency to increase the significance of the integrated assessment of the activity of the higher education system on the basis of ratings. The target audience of a rating is educational institutions, representatives of the corporate sector, the state, the society as consumers, service providers, intermediaries, investors and partners interacting in a unified system. Each subject of interaction assesses the quality of the activity of the other, taking into account its own goals, missions, processes, results and resources. This circumstance makes it expedient to characterize the innovative component of human potential through the prism of evaluating the educational environment and its individual elements. This circumstance determines the goal of our research - the study of the content of the innovative component of human potential in the ratings of universities, its assessment through the prism of the educational environment and its individual elements.

In the process of work, data analysis methods were used, a list of indicators necessary for evaluating the innovation component of human potential was synthesized. The method of scientific abstraction was used to characterize human potential and university ratings. Using the method of mathematical modeling developed an innovative component of the ranking of universities.

Scientific significance of the question concerned substantiated by a brief review of literature

The scientific community notes the importance of the ideology of Industry 4.0 for determining the development strategy of the modern state. Therefore, the researchers focus on changing the approach to the development, production, realization and use of products from the viewpoint of changing the nature of tasks of business entities (Cervantes & Meissner, 2014; Миронова, 2012; Saritas, 2013; Wu, Chen, & Chen, 2010; Yudina, 2017). In the theory and practice of the industrial revolution, the future people are faced not primarily with routine but creative tasks. The person with his/her abilities and needs is brought to the forefront.

In the context of innovative global and regional development, there is a revision of its priorities: there is a transition from the goals of economic development to the goals of human development. The qualitative improvement of all spheres of development of society in general and of man in particular is at the forefront. In comparison with the evaluation of a person as a resource (human capital), the evaluation of man as a goal and the foundations of universal development (human potential) is gaining increasing importance both in the

works of researchers, and in projects of strategic development of the state (Kizim & Vorozhtsova, 2017; Миронова, 2012; Twelve solutions for a new education, 2018).

Our analysis of existing publications shows that human potential in association with human capital and as a local category is explored from the standpoint of economics, sociology, psychology, statistics, linguistics, etc. The human potential in modern scientific works is considered as a basic characteristic of the long-term development of the nation as a whole and its individual elements. There are two main approaches to its study (Anand & Sen, 2000; Salmi & Altbach, 2011). The first approach involves linking human potential to the growth of general welfare, the second one brings to the fore the personal development of the individual as such.

The contradiction arising in the choice faced by society is noted separately. This contradiction is revealed, for example, in the work of J. Salmi, where it is noted that not all countries need world-class universities, and that they should focus on developing quality national universities that meet the fundamental needs of the educational system of these countries (Salmi & Altbach, 2011). The structural aspect of the contradiction is touched upon by A. Boni, in whose paper the matrix interpreting the activity of university subjects taking into account the basic values of human development is presented (Boni, 2009). At the same time, both the human potential as a whole and its components can be considered from the point of view of the priority of implementation for a given generation or accumulation for generations of the future (Davydova & Barkalov, 2018; Krakovskaya, 2011).

Innovative and scientific development of the country is determined by the human potential, first of all, its innovative component (Kizim & Vorozhtsova, 2017; Kurgalin & Shershen, 2016; Миронова, 2012; Yudina, 2017). The presence of ideas depends on the creative potential of man. Innovation is the result of the creative work of a person who has certain knowledge, realized as a product, process and technology. The innovative component of human potential is explored from the standpoint of the existing abilities of a person to realize discoveries, generate ideas and positions of knowledge accumulated throughout life, ensuring the realization of the abilities. It is the education that determines the accumulation of human potential and the possibility of its realization (Boni, 2009; Davydova & Barkalov, 2018; Salmi & Altbach, 2011; Twelve solutions for a new education, 2018). The quality of education is interconnected with the quality of human potential, and the link is two-way. The evaluation of the quality of education is indicative in assessing the quality of human potential and its components, including the innovative component.

The assessment of the activities of universities is increasingly unified, tending to use the rating system (Balatsky & Ekimova, 2012; Polikhina &

Trostyanskaya, 2018; Ratings, 2018). Researchers note both the advantages of using ratings and argue critical remarks on the existing theory and practice of rating evaluation of universities. In particular, the researchers note the fact that representatives of a certain target audience can be misled on the basis of studying both general and specified ratings of universities, especially regarding the position of highly specialized and regional universities (Ivanov & Volkova, 2010; Trotsuk, 2009). Further, E. Balatsky, N. Ekimova, I. Trotsuk call into question the objectivity of ratings using unique indicators that are typical only of a small number of universities. The advantages of English-speaking universities, the scale of state support, and the features of infrastructure and territories are indicated (Balatsky & Ekimova, 2012; Davydova & Barkalov, 2018; Trotsuk, 2008).

The analysis of scientific works allows stating that the human potential as a whole and its innovative component in the rating structure are not isolated, or are not sufficiently taken into account.

Within the framework of this paper, the main task is the development of the rating component of higher education institutions, which will allow assessing the state and prospects for the development of the innovative component of human potential. To solve this problem, firstly, it is necessary to review and classify existing ratings. This is due to the choice of options for calculating the innovative component of the rating adaptive to the overall basic rating component used in the existing evaluation system of the activities of universities.

Secondly, it is important to study the structure of existing ratings, taking into account the methods of their calculation. The indicators that determine the components of the rating make it possible to orient the evaluation of the activity of the university to the targeted satisfaction of the need to obtain the necessary information by representatives of a certain target audience.

Thirdly, we consider the representation of the characteristics of the rating structure to be significant, according to our position, which allows us to evaluate the innovative component of human potential. For this purpose, it is necessary to select the indicators corresponding to the task.

History of classification and classification of ratings

Researchers consider the reasons for the emergence of ratings in education the growth of competition among systems of different states, increased competition between universities, the need for representatives of different target groups to obtain objective information about universities from independent sources. S. Ivanov notes that most of the methodologies, on the basis of which the ratings were compiled, can be divided into three groups (Ivanov & Volkova,

2010). The first is based on the achievements of teachers of colleges and universities, the second on the achievements of students, the third on the quantity and quality of the resources of educational institutions. The first integral rankings of higher education institutions, similar to the modern ones in terms of content, were appraisal publications in “U.S. News and World Report” in 1983 and “Business Week” in 1987. Global ratings used in modern conditions have appeared since 2003 (for example, the ARWU rating), QS and Webometrics since 2004.

In the published works, there are various variants of classification of rankings by scale (global, national, regional), by types (unified assessment of the university or a number of assessments of each of the educational programmes implemented by the university), by structure (one subject and multi-subject), by data sources (statistics, surveys), by groups of indicators (sectoral, subject) and so on. Among the global international ratings, in which modern leading Russian universities are included, there are: the QS, the THE, the ARWU, the rating of Webometrics, U-Multirank, the rating of the Best Global Universities by the media company U.S. News & World Report, CWTS (Balatsky & Ekimova, 2012; Davydova & Barkalov, 2018; Ivanov & Volkova, 2010; Pugach & Zhukovskaya, 2012; Ratings, 2018).

Among the global international ratings, in which modern leading Russian universities take part, the ratings of the agency Quacquarelli Symonds QS, the British weekly “Times Higher Education”, the Chinese Academic Ranking of the World Universities ARWU, the rating of Webometrics, or Ranking Web, multidimensional U-Multirank, US rating News Best Global Universities of media company U.S. News & World Report, Leiden Ranking of the Center for Science and Technology Studies of Leiden University (CWTS) are named. In particular, according to the Ministry of Education and Science of the Russian Federation on May 31, 2018, the reputational rating of THE World Reputation Rankings 2018 was announced on May 30.

According to published data, in Russia there is a significant number of national ratings of universities, among which the following ones are the main. The first is the National University Ranking; it has been calculated from 2009 on the basis of the contract of the International Information Group “Interfax” with the Federal Agency for Education. The purpose of the creation was the need to develop the foundations of an independent rating system and the formation of ratings of Russian universities. Then there is RAEX rating of Russian universities (Expert RA): the agency has been making annual ratings of the reputation of higher education institutions in enlarged directions since 2012. The rating reflects the result of the assessment of universities by participants in the surveys conducted by the agency: students and graduates, representatives of academic and scientific communities, representatives of employer companies. In

addition, the Rating of the Russian Rating Agency RUR (Round University Ranking), operating since 2013, and is the official representative of the British international rating of Times Higher Education (THE) in Russia and CIS countries is published. Data for the rating system RUR is provided by the international company Clarivate Analytics. Further, on November 2, 2016, the Moscow international rating “Three missions of the University” was run. The rating uses a number of criteria calculated by objective data, and excludes subjective reputational surveys.

The results of the analysis of the calculation variations of the ratings considered by us are as follows. Webometrics, U-Multirank, Leiden Ranking, “Three missions of the University” ratings are calculated only in the general version. The national university rating is presented in the general (consolidated) version and by components of the general calculation, that is, according to the positions of Research, Education, Innovation, Brand, Internationalization, Socialization. A similar variation is present in one of the calculations of the RUR rating, which presents the Teaching ranking, the Research ranking, the International diversity ranking, the Financial ranking, the Sustainability ranking. Let us add that all variations of the RUR are calculated in a number of countries in the world.

QS, ARWU, THE, US News, Expert RA and RUR ratings have several target variations. For most ratings, the calculation of general and subject variants is typical (QS, ARWU, THE, US News). The sectoral (QS, ARWU), regional (QS, US News), reputational (THE, RUR) settlement variants are widely represented. As special cases, options for calculating the employment of graduates (QS), the rating of young universities (THE), academics (RUR) are presented. Our analysis showed that, in conjunction with other Russian ratings, the above mentioned ratings are focused on the target audience, which can be represented by three main groups.

The first group is applicants. Ratings on reputation (the rating of “Interfax” The best brands of universities), on the quality of budget and paid admission to universities in Russia, infrastructure, scholarships, conditions for obtaining high-quality education in Russian universities (ratings “Expert RA” and “Interfax”), on the employment and salary of graduates (for example, the salary rating of the portal Superjob.ru), on additional education (global U-Multirank) are significant.

The second group is employers. The following ratings are of significant importance: foreign common and reputational QS, THE, US News & World Report Best Global Universities, ShanghaiRanking's subjects Global Ranking of Academic Subjects, Eduniversal Best Masters Ranking, Russian reputation ratings, employment monitoring of graduates of the Ministry of Education and Science of the Russian Federation, monitoring quality of admission to

universities HSE (partner is the Ministry of Education and Science of the Russian Federation).

The third group is potential and current investors (Ministries and Departments, funds, groups and so on). We consider reputational global and Russian ratings, subject ratings reflecting the results of scientific research (for example, Top Universities by Google Scholar Citations, Webometrics, Best Russian Universities in the Level of Scientific Research Activity "Expert RA", Rating of Higher Educational Establishments for version of the Vladimir Potanin Charitable Foundation) and others. The selected target groups should be considered in relation to the global, national and regional university ratings. To solve our problem, we need to study the structure of ratings.

Innovative component of human potential

J. Schumpeter introduced the definition of innovation, which included five items: the introduction of a new product, the introduction of a new mode of production, the opening of a new market, the acquisition of a new source of raw materials or semi-finished products, the application of a new form of organization (Schumpeter, 1980), that is, the generation of ideas, the process of their implementation, the receipt and use of the result. At the same time, M. Cervantes and D. Meissner Cervantes & Meissner, 2014) identify the asymmetry of information; weak demand from small and medium-sized enterprises; legal problems; differences in the aims of universities and enterprises; lack of funds necessary for demonstration projects.

Our research has shown that a number of ratings of different levels (mainly global ones) are presented in general and applied - reputational, subject, sectoral, regional - variations.

For example, the global ranking takes into account data from international ratings in a number of areas of activity to calculate the desired ratio, and the national rating relies on cost-benefit analysis by discipline over a five-year period (Hedman, Kivinen, & Kaipainen, 2011). The scientific literature presents the results of a study of the impact of university rankings on assessing its reputation (Bowman & Bastedo, 2011), the impact of university reputation on the objectivity of third-party peer review (Pleggenkuhle-Miles, Khoury, Deeds, & Markoczy, 2013), studying the significance of the ethical component of university ranking from the perspective of student performance (Sedigh, 2017).

Separately, we note an ambiguous assessment of such a practically obligatory structural component of the overwhelming majority of ratings, such as citing and publishing activity, including the selection of specific scientific

journals (Coupe, 2003; Frey & Rost, 2010; Willcocks, Whitley, & Avgerou, 2008).

We offer variations that are not directed at the spheres and aspects of the university's activity, but on the needs of the target audience of the rating system. We believe it is important to identify generalized sets of subjects in the system of interaction among subjects of innovative development.

Above we talked about three main target groups: applicants, employers, investors. In our opinion, however, the study of the rating structure involves changing the characteristics of the target groups from the position of their common interests. For example, researchers have noted the importance of microanalysis of research efficiency in universities and their relationship with production (Cherchye & Abeele, 2005). In addition, there is an opinion that a significant component of the rating assessment of an educational institution is both evidence of the satisfaction of the user of educational services and an independent external expert assessment of this activity (Gomez et al., 2015). Let us consider not the target groups from the point of view of the university, but the university from the point of view of the target groups.

The researchers, taking part in the development and implementation of Project 5-100, identify the main target groups of university ratings. Among them, there are entrants and their parents; students choosing the trajectory of training; scientific and administrative employees, teachers; industrial sector and innovative companies in the search for business partners; organizations in the search for a base for staff development; universities (Polikhina & Trostyanskaya, 2018). With this list in mind, we propose the formation of three aggregate target groups whose interests with respect to interaction with the university coincide. The first group is focused on the production process (employers, consumers of products and technologies, when potential partners are interested in commercialization of the developed technologies, joint production). The second group is focused on the investment process (administrative resource, enterprises in the search for innovation count on the delayed effect, evaluate the effectiveness of potential investments taking into account the potential of the university). The third group is focused on the educational process (national and regional authorities, university entrants, partner universities, their professional development, joint research).

Thus, the production, investment and educational target groups can be identified. We do not put strict boundaries between representatives of these groups, since one subject may have interests related to production, and to investments, and to education (the state, for example). Accordingly, we propose the formation of a general rating and variation ratings: industrial, investment, educational.

We have analysed the methods for calculating a number of general and variation ratings of various groups, including: QS, THE, ARWU, Webometrics, U-Multirank, U.S. News, Leiden Ranking, RUR, Expert RA, Three university missions, National rating of Interfax universities, Higher education institutions rating according to the Potanin Charitable Foundation version, rating of inventive activity of the Analytical Center Expert (Methodology for rating the inventive activity of the Analytical Center Expert [MRIA], 2018, Methodology of the Graduate Employability Ranking (QS Grading Employee Ranking) for 2017 [MGER], 2018, The rating methodology Innovation and entrepreneurship [RMIE], 2018). Among other things, the works of a number of researchers have been studied on the structure of ratings (Alashev, Kogan, & Tyurina, 2016; Balatsky & Ekimova, 2012; Polikhina & Trostyanskaya, 2018; Ratings, 2018; MRJA, 2018; MRJA, 2018; RMIE, 2018). Add that, in particular, among the indicators of innovative capital, selected by researchers (Wu et al, 2010) when measuring the intellectual capital of educational institutions, the number of new ideas, the number of publications, tangible assets, financial support, research results are named. Taking into account the ratings studied by us and the methods of their calculation, it can be argued that, based on the calculated indices, the basic components are almost unchanged, while the variational ones are focused on the local needs of the target groups.

As a result, we have found it possible to come to a number of conclusions, among which the following are particularly significant in the framework of this paper.

Indicators should correspond to the specifics of the national education system, be clear, as transparent as possible and accessible. Indicators should be sufficiently universal, suitable for assessing the activities of different universities. If the indicator is unique, it is advisable to make it in the variational calculation of the rating. It is necessary to prove the sufficient objectivity of the indicator in order to avoid conflicting estimates. As a rule, as an example of a subjective indicator, the results of surveys are given. As an example of an indefinite, ambiguous indicator, the information of assessments of entrants at entrance examinations is given. The allocation of a clear list of indicators that characterize the human potential and its components is impossible, since indirectly all indicators can be considered as such. The allocation of target indicators is at the discretion of the rating developers and does not claim uniqueness of the sample. When choosing a rating calculation option, it is possible to effectively prioritize indicators using weight coefficients. The rating should be considered as one of the options for reference information, not claiming for absolute accuracy of the evaluation of the university.

In addition to the above positions, we separately consider it necessary to single out a special indicator, which seems to us mainly qualitative, difficult to

integrate into the structure of the rating, but extremely important. We will characterize it as thrust achievement of the goal related to the innovative development of the state and its territorial entities on the basis of accumulation, development and attraction of human potential. An example is the experience of the Chinese city of Dalian.

The development of the system of higher education in China is carried out in accordance with a number of strategic projects, primarily Project 211 (allocation and development of key universities) and Project 985 (development of higher education in cooperation with local governments), the content of which is discussed in sufficient details, for example, S. Guanzi and A. Golobokov (Guanzi, 2018; Golobokov, 2016). According to the general plan for the development of the higher education system, work is carried out with universities classified as key universities for the training of elite specialists; highly specialized universities that are not among the key ones, and universities far from the center of the regions.

In particular, the Dalian Maritime University, ranked 122nd in the national ranking of the country in attracting students focuses on improving the campus, laboratory buildings, a multimedia instructor center, a marine science research center, navigational training simulators, technical simulators, oceanic training vessels.

Taking into account the topic of our work, we believe it is important to focus on the policy of attracting and introducing innovative solutions in selected spheres of economic activity in modern China with the active support of an administrative resource. As an example, let us recall the experience of Dalian. The International Coordination Council of the graduates of the educational institutions INCORVUZ-XXI, in cooperation with the Center for Russian-Chinese Humanitarian Cooperation and Development, sent an invitation to participate in the International Innovation Congress in the city to major Russian universities in 2018 Dalian.

The Congress was organized by the Ministry of Science and Technology of the People's Republic of China, the Ministry of Education of China, the Ministry of Labor and Social Security of China, the State Committee on Foreign Affairs of China and the Academy of Sciences of China. The goal is to attract world developers of innovative technologies and business structures to unite the potential of specialists, technologies, capital and information, aimed at making Dalian City a regional capital of innovative cooperation of Northeast Asia. The developers of innovative technologies in the spheres, including artificial intelligence, large data technology, and intellectual production, were being invited.

It was specially noted that the participants would have additional opportunities to establish links with interested Chinese enterprises and business

structures for the purpose of possible improvement, carrying out development tests and implementation of the proposed technologies. The host country paid the leaders of the selected projects for the international flight and accommodation in Dalian for the period of the Congress.

Such experience allows allocating and using the innovative human potential in a narrowly focused and rational way. In this case, the effective interaction of the subjects of innovative development, the scale of the event, indicative of both the current and the delayed impact of the project implementation is indicative.

So, we found it possible to designate an indicative list of indicators on the basis of which a rating assessment of the innovative component of human potential can be carried out. Indicators are not tied to the group rigidly, they can be moved.

Production indicators: reputation among employers (survey); number of university partnerships (internships, employment); number of former alumni supporting partnerships; share of graduates who received a referral to work; ratio of the number of companies organizing a job fair in the territory of the university to the number of students; proportion of existing patents; and the share of income from research and educational programmes for organizations in the total income of the university.

Investment indicators: number of issued patents, licenses; share of patents developed in collaboration with companies; funds paid and received for the acquisition and use of patents, licenses, trademarks, projects, know-how and technical services; and the share of funds from the commercialization of intellectual products.

Education indicators: ratio of the number of wins of students in the university in Olympiads, contests to the total number of students; proportion of students who published articles in scientific journals with a non-zero citation index; participation of students in joint research projects with companies; number of scientific awards; citation rates in national and international citation systems; number and proportion of publications written in cooperation with one or more industrial organizations; number of online courses of the university, placed on the largest global online platforms; share of patents developed in collaboration with universities; and the share of cited patents.

Results and discussions

The analysis of existing ratings and their structure, as well as authoritative opinions of scientists, suggests that the trend in using ratings at different levels to assess the performance of universities will at least remain in the near future. We believe that the formation of a universal rating that takes into account the

interests of all subjects of the economic activity under consideration is impossible due to the existence of the expressed features of the activity of universities and the specifics of the rating itself. Consequently, the optimal resolution of the problem noted is the calculation of a rating having a corrective component, or a rating aimed at solving a highly specialized problem.

The importance of introducing weights into the calculation, taking into account the influence of various criteria, is emphasized by researchers when assessing a benevolent ranking of universities (De Witte & Hudrlikova, 2013). On the contrary, the complexity of an objective assessment of the weight of a component in the composition of the rating is noted by M. Bougnol and J. Dula (Bougnol & Dula, 2015). Taking into account their position, we agree with the ambiguity of using weights in the base rating and the expediency of introducing them into the variation component of the rating.

To evaluate the innovative component of human potential, we offer two options for calculation.

The first option is a complementary (corrective) innovation component that characterizes the innovative component of the human potential of the university. Variational component with change in the weights of the indicators by their groups is added to the basic rating with the purpose of its adjustment taking into account the innovative component (1).

$$Ki_n^f = 0,5k_1^f + 0,25k_2 + 0,25k_3 \quad (1)$$

Ki_n^f - innovative component, formed from the priority at the given moment characteristics k_1^f , having a maximum weight of 0.5 from n positions, and two others, with weights of 0.25. So, if the rating is focused on one of the target groups we have identified, the priority characteristic is the corresponding group of indicators - 1, 2 or 3. The weight of the innovative component in the general rating is evaluated depending on the task of the rating evaluation.

The second option is the calculation of the local rating of innovative human potential. We propose a calculation of the overall rating and variational calculation of the rating for each of the target groups. Overall investment rating Rig (2) is calculated as the sum of groups of indicators (components) k_q , represented in the total number m, in our example m=3.

$$Rig = \sum_{q=1}^m k_q, \quad (2)$$

Variational calculations of the rating Rig are positioned as Rig_{var} (3), where var is the designation of the target audience to which the local assessment is focused. Accordingly, Rig_{var} is the sum of the locally selected indicators of the

overall rating x_l in the amount of v .

$$Rig_{var} = \sum_{l=1}^v x_l, \quad (3)$$

Depending on the significance of this or that indicator for the representatives of a particular target group at a given time, the sample can be changed, indicating in the methodology the appropriate adjustment of the calculation for the considered billing period.

Accordingly, the component can be targeted to a particular audience, or be universal. The indicators of the innovation component and the local rating of the innovative human potential with its variations are adaptive to the purposes of the rating assessment. They can move through groups of the innovation component and variations in the local rating while strengthening the priorities of the development strategy of the subject of interaction in the higher education system.

Thus, the priorities of representatives of the target audience are automatically built into the mechanism for managing the development of the university, and without additional influence, the emphasis is on developing and implementing the innovative component of human potential.

Conclusions

So, the authors of the paper determined the desirability of characterizing the innovative component of the human potential through the prism of assessing the educational environment and its individual elements.

The analysis of the existing ratings by assessing the activities of universities. Studied methods for calculating the base ratings. The variants of their classification are investigated and the own classification of ratings is proposed taking into account the target groups. The groups of indicators of rating components are determined when assessing the innovative component of human potential from the standpoint of their availability, reliability, universality and clarity for representatives of the target audience.

It was revealed that the formation of a universal rating, taking into account the interests of all business entities, is impossible due to the existence of pronounced features of the activities of universities and the specifics of the rating itself. The resolution of the noted problem is the calculation of a rating with a corrective component, or a rating aimed at solving a highly specialized task.

The authors proposed two options for the calculation. The first option is a complementary (corrective) innovation component, which characterizes the innovation component of the human potential of the university as part of the

basic rating. Variation component, with a change in the weights of indicators by their groups. The second option is to calculate the local rating of innovative human potential without using weights. Accordingly, the component can have a universal character, or focus on a specific audience in accordance with the requirements existing in specific conditions.

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ВОПРОС О СТОИМОСТИ В ЭКОНОМИЧЕСКОЙ ТЕОРИИ: ПРАКТИЧЕСКИЕ СЛЕДСТВИЯ

The Issue of Value in Economics: Practical Consequences

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Abstract. *Value is a standard of the cost, a certain common quality, which makes it possible to compare costs of quite different things. This construct probably cannot be operationalized generically, but in the development of theory operationalization is not imperative. Although neoclassical economics rejects this category ultimately, it is possible to demonstrate that this approach can be well adjusted to it. The issue of value is not merely a theoretical one. The purpose of the work is to show that if a feedback through the market must have an objective basis as an initial standard, that is money must have a benchmark, then the correct choice of a monetary benchmark can result in significant positive macro-economic consequences. Methods of research: scientific and philosophical analysis of texts and theoretical development. Conclusions: The idea that the feedback through the market must have an objective basis as an initial standard - that is money must have a benchmark – is not contradictory theoretically and its realization is desirable in practice. An energy monetary benchmark is probably preferable for a modern economy. The energy monetary benchmark can stabilize currency circulation potentially, optimize the price vector and simplify the valuation of mineral resources.*

Keywords: *economics, energy monetary benchmark, value.*

Введение ***Introduction***

Стоимость – мера ценности (некое общее свойство, позволяющее проводить сравнение ценностей качественно различных вещей). Этот

теоретический конструкт эксплицирует сущностное свойство экономической реальности – а именно то, что люди в самом деле как-то сопоставляют различные по природе ценности. Однако сложности как выявления сущности стоимости, так и ее операционализации¹ оказались столь велики, что к началу XX века в экономической науке установилось мнение: все осмысленные экономические вопросы могут быть разрешены без использования категории «стоимость».

Это, однако, к ряду новых проблем: отказ от меры ценности в теории влечет за собой априорную равновесность микро-моделей, приводит к рассогласованию микро – и макроэкономических подходов.

Но является ли этот вопрос только лишь теоретическим?

На практике деньги, не привязанные к эталону (плавающие курсы валют – это прямое следствие, в том числе, и господства представлений об отсутствии стоимости у любого товара) становятся средством экономических манипуляций в глобальных масштабах (Егоров, 2008; Егоров, 2016). Отказ от золотого стандарта для доллара стал возможен в том числе и потому, что в умах людей укоренилась идея о принципиальном отсутствии меры в экономике. Соответственно, возврат широких масс экономистов-теоретиков, менеджеров, политиков к идее объективности стоимости (и необходимости эталона для денег – золотого, энергетического или какого-то еще, но обязательно объективного) может поставить под сомнение легитимность современной системы плавающих валютных курсов (Егоров, 2016).

В настоящем тексте мы предполагаем обсудить другой аспект проблемы стоимости.

Цель настоящей работы – показать, что если обратная связь через рынок должна иметь объективный базис как исходную меру, то есть деньги должны иметь *эталон*, то корректный выбор денежного эталона может привести к существенным позитивным макро–экономическим следствиям.

Так как исследование является теоретическим, методы исследования: научно-философский анализ текстов и теоретическое конструирование.

Методы исследования *Methodology of the research*

Наша методологическая позиция – априоризм (реализм в средне-вековом смысле слова): мы постулируем существование стоимости как меры ценности, и далее исследуем, что меняется при этом в

¹ Операционализация – ясный критерий или алгоритм определения наличия/отсутствия какого-либо свойства, и/или его измерения.

экономической теории и практике. И хотя неоклассическая экономическая теория принципиально отказывается от этой категории, можно показать, что такой подход вполне может быть с нею согласован.

Ранее (Егоров, 2008; Егоров, 2013; Егоров, 2016) мы обосновали тезис: никаких объективных научных оснований для элиминации стоимости нет. И хотя этот конструкт, вероятно, не может быть в общем случае операционализирован (Egorov, Dyatlov, Bogdanov, Shushpanov, & Egorova, 2018), но операционализация при построении теории не является обязательной: «...каждый врач более или менее точно знает, что он понимает под словом «туберкулез», но не всегда может распознать эту болезнь... Однако было бы ошибочным считать, что прежде чем мы получим критерий, позволяющий определить, болен человек туберкулезом или нет, фраза “X болен туберкулезом” бессмысленна; ...многие люди считают ответ на вопрос “Что есть истина?” невозможным главным образом в силу их стремления к обладанию критерием истины. На самом же деле отсутствие критерия истины не в большей степени лишает понятие истины смысла, чем отсутствие критерия здоровья делает бессмысленным понятие здоровья» (Поппер, 2009).

Также как никто при построении неоклассической микротeorии общего экономического равновесия не объясняет, как конкретно *homo oeconomicus* получает доступ ко всей значимой экономической информации, нет необходимости и объяснять, как *homo oeconomicus* узнает «идеальные цены». А что такое стоимость? Это и есть, в сущности, цена ресурса на идеальном рынке (где действуют абсолютно рациональные агенты с полным доступом ко всей значимой информации).

Принятие или отрицание стоимости сводится к вопросу о природе предпочтений индивида. Классическая теория, признавая, что цены могут конъюнктурно отклоняться в ту или иную сторону в зависимости от степени редкости благ в данном месте и в данное время, постулирует ценность вещи “самой по себе”, “при прочих равных”. Неоклассическая же теория, отмечая те же конъюнктурные причины изменения цен, считает вопрос ценности вещи “самой по себе” не имеющим смысла (предпочтения *homo oeconomicus* – это “черный ящик”). Принятие принципа существования стоимости – это, в сущности, просто раскрытие наполнения “черного ящика” *homo oeconomicus*.

Возврат стоимостного подхода в теорию не приведет к ее разрушению: это будет капитальный ремонт теоретического фундамента экономики (Егоров, 2016).

Подробнее вопрос о соотношении нашего подхода и неоклассической экономической теории рассмотрен нами ранее (Егоров, 2008; Егоров, 2013; Егоров, 2016).

О ценовом регулировании и энерговалюте *About price regulation and energy currency*

Идеальный рынок в состоянии оптимального равновесия имеет некоторый вектор цен, который мы назовем *оптимальным вектором цен* (ОВЦ)². Прокомментируем, что из себя должен представлять ОВЦ, обратившись к модели межотраслевого баланса: при перемножении ОВЦ с транспонированной матрицей прямых затрат мы получаем издержки производства. Они должны быть таковы, чтобы при вычитании их из ОВЦ в каждой отрасли оставалась «разумная прибыль»: достаточная для инвестиций, но не чрезмерная (чтобы исключить бегство капитала из других отраслей):

$$\text{ОВЦ} * (E - A^T) = l^{\text{opt}} , \quad (1)$$

E – единичная матрица;
 A^T – транспонированная матрица прямых затрат;
 l^{opt} – вектор оптимальной добавленной стоимости («разумная прибыль»).

Это – стоимостное условие роста А. Эйхнера (Eichner, 1991).

В реальных экономических системах происходит деформация текущего вектора цен относительно ОВЦ.

Теперь рассмотрим ситуацию с другой стороны: известно, что если в экономике задан вектор цен, то это определяет соответствующее ему равновесное состояние (Blaug, 1985). Если этот вектор будет оптимален, то и соответствующее ему равновесное состояние будет также оптимальным: на этом основана модель рыночного социализма (Lange & Taylor, 1938; Lange, 1942). Проблема здесь в том, *как* практически вычислить ОВЦ – с учетом несовершенства экономической информации и издержек ее сбора. Именно эти аргументы были использованы для критических нападок на модель рыночного социализма (Науек, 1948; Науек, 1988): чем более детальный вектор цен предполагается задать, тем выше уровень издержек его определения.

По нашему мнению, здесь уместен маржиналистский подход: оптимальная степень корректировки вектора цен может быть определена по достижению равенства между предельными издержками рыночных трансакций (которые растут по мере уменьшения директивного

² Как мы уже указали выше, на идеальном рынке эти цены будут совпадать со стоимостями.

регулирования цен) и предельными издержками управления (растущими по мере увеличения регулирования)³.

Практически наша идея заключается в том, чтобы найти такой *минимум видов товаров*, регуляция цен на которые дала бы *максимальный оптимизирующий эффект* для экономической системы в целом, и при этом (в силу минимальности этой группы) поддавалась бы расчету. Мы принимаем следующие предварительные гипотезы:

- 1) с ростом количества номенклатуры цен, подлежащих регулированию, транзакционные издержки директивного регулирования растут по степенному закону⁴, – то есть взрывным образом;
- 2) объем реализации конкретного товара на рынке не влияет на транзакционные издержки определения его оптимальной цены;
- 3) издержки директивного регулирования цен при прочих равных меньше для монопольных товаров, а также для товаров, прошедших меньшее количество циклов передела;
- 4) чем с большим количеством типов товаров связан товар в производственной цепочке, тем выше эффект от нахождения и закрепления его оптимальной цены.

Условия (1)–(2) являются общими для любого товара. Условиям (3)–(4) полностью соответствуют минеральные ресурсы, прежде всего – энергоносители.

Последние 200 лет экономика основана на использовании энергоносителей; по состоянию на сегодня количество потребляемой энергии может быть (с учетом поправок на климат) количественной характеристикой развитости той или иной экономической системы (Клименко, 1994).

Это – ситуация историческая: в прошлом столь тесной корреляции между количеством потребляемой энергии и экономической продуктивностью не было, и, вполне возможно, в будущем эта связь тоже может ослабнуть (например, при резком снижении энергоемкости ключевых технологий, и/или открытии новых дешевых источников энергии). Однако по состоянию на сегодня стоимость энергоносителей является одной из главных составных частей в структуре издержек на большую часть экономической продукции.

³ Подобно тому как оптимальный размер фирмы есть функция отношения уровня внутрифирменных и рыночных транзактных издержек (Coase, 1937).

⁴ В пределе – когда каждая новая позиция в номенклатуре оказывается связанной со всеми предшествующими – закон роста становится факториальным ($1 * 2 * \dots * (N-1) * N = N!$); но даже связь каждого следующего номера номенклатуры только с несколькими позициями дает рост степенной.

Итак, мы приходим к выводу: фиксация оптимального вектора цен на энергетические и минеральные ресурсы приводит:

А) к минимизации негативных нелинейных экономических эффектов (за счет стабилизации вектора цен – ибо его спекулятивная «раскачка» будет затруднена привязкой – через производственные цепочки – большей части товаров к «твердым» ценам);

Б) к эволюции экономической системы в сторону оптимально–равновесного состояния: если зафиксированные в результате расчета цены действительно будут оптимальными, то и цены на товары, связанные с ними производственными цепочками, тоже будут иметь тенденцию к эволюции к ОВЦ.

Как найти оптимальный вектор цен для энергетических и минеральных ресурсов?

How to find an optimal vector of prices for energy and mineral resources?

Ответ на этот вопрос зависит от принимаемых при рассмотрении экономической системы первичных философских принципов. Так, с позиций неоклассической экономической теории, и вообще на основе принципа субъективизма (то есть теоретического отказа от использования стоимости), эта проблема неразрешима.

Что меняется с признанием объективности понятия «стоимость»? Тогда ОВЦ должен соответствовать стоимости соответствующих ресурсов. Попробуем уменьшить количество независимых переменных:

1. Начнем с того, что типов энергетических ресурсов не так много (нефть, природный газ, уголь, уран, органическое топливо, гидроресурсы – роль всего остального в современном энергобалансе пренебрежимо мала), и существуют способы пересчета стоимости любого энергоносителя в любой другой энергетический эквивалент⁵.

2. На современном этапе развития науки и техники, когда одним из основных лимитирующим экономический рост фактором является уровень энерговооруженности, стоимость ресурсов неэнергетических есть функция их редкости, полезности (связанной с уровнем науки и технологии) и количества требуемой для их извлечения энергии. В самом деле: месторождение полезного ископаемого есть информационная флуктуация (относительно равномерного распределения компонента в земной коре), экономящая нам стоимость выделения данного компонента в чистом виде

⁵ Это можно сделать, например, опираясь на концепцию относительных цен (относительная цена – стоимость одного товара, выраженная через определенное количество другого; определяется пропорциями обмена между отраслями экономической системы с использованием таблиц затраты–выпуск) (Sraffa, 1963).

из обычной горной породы или отходов. Так, все потребности человечества во *всех* минеральных ресурсах могут быть удовлетворены при переработке нескольких кубических километров гранита.

Чем совершеннее технологии и доступнее энергия, тем меньше необходимости в поиске такого рода флуктуаций информационного поля земной коры: проще и дешевле становится добывать полезный компонент из запасов, где он содержится в менее концентрированном виде, нежели нести расходы по поиску нового месторождения. Поэтому стоимость любого неэнергетического ресурса можно (для заданных уровней технологий и потребности в ресурсе, а также его редкости) выразить через стоимость энергии: сколько ее потребуется для организации альтернативной добычи ресурса из недефицитного сырья.

3. Из (1–2) заключаем: стоимость минеральных ресурсов может быть выражена через стоимость *любого* энергоресурса (киловатт–часа электроэнергии, литра бензина и т.д.).

Таким образом, мы уменьшили количество независимых переменных в нашей задаче до одного: осталось найти одну–единственную стоимость – этого самого базового энергоносителя. Однако вычислять ее конкретную величину в каких-то информационных единицах совершенно необязательно – достаточно знать, что она есть, и именно ее и использовать как меру стоимости (подобно тому как мало кто помнит, что метр есть 1/40.000.000 длины меридиана – и это не мешает пользоваться метром как единицей длины). Например, «рубль – это стоимость киловатт–часа электроэнергии».

Эта идея неоднократно высказывалась и ранее (Podolinski, 1880; Кузнецов, Сухой, & Сысоев 2003; Soros, 2003) – но на другой теоретической основе (иной трактовке категории «стоимость»):

«Как добиться, чтобы денежные знаки стабильно подкреплялись определенной стоимостью в том или ином товарном виде? ... С. Подолинский показал в своих работах, что процесс материального производства представляет собой накопление расходуемой в результате труда энергии в форме конечного продукта... Отсюда следует: стоимость можно выражать в единицах измерения энергии. То есть каждый рубль, каждый доллар может обеспечиваться некоторым количеством калорий, киловатт–часов» (Кузнецов и др., 2003).

Соглашаясь с выводами авторов вышеприведенной цитаты, тем не менее отметим, что эти верные выводы получены на не вполне корректных (по нашему мнению) основаниях энергетической теории стоимости. Сущность труда, по нашему мнению, есть материализация информации, а не энергии.

Хотя во многих актах труда человек совершает работу, превышающую его мускульные возможности, за счет использования внешних потоков энергии (в конечном счете сводящихся к энергии Солнца). Однако есть много видов труда, в которых не используется внешняя энергия (например сборка микросхемы). Труд в понимании «энергетистов» есть частный случай труда в нашем понимании (труд как воплощение идеальных моделей), то есть не охватывает всего объема понятия «труд» (Egorov et al., 2018). Соответственно, и привязка денег к энергетическому эквиваленту имеет смысл потому, что в *современной* экономике стоимость большинства продуктов имеет высокую энергетическую компоненту (но не потому, что преобразование энергии – *онтологическая основа* труда).

Выводы *Conclusions*

Идея, что обратная связь через рынок должна иметь объективный базис как исходную меру – то есть деньги должны иметь эталон, - не противоречива теоретически, и ее реализация желательна практически.

Для современной экономики оптимален, вероятно, энергетический денежный эталон.

Энергетический денежный эталон потенциально может стабилизировать денежное обращение, оптимизировать вектор цен и упростить оценку стоимости запасов минеральных ресурсов.

Summary

The purpose of this work is to show that if feedback through the market should have an objective basis as an initial measure, that is, money should have an etalon, then the correct choice of a monetary etalon can lead to significant positive macro-economic consequences. Research methods: scientific and philosophical analysis of texts and theoretical development.

An ideal market in a state of optimal equilibrium has a certain price vector, which we will call the optimal price vector, and the corresponding equilibrium state will also be optimal. Our idea is to find such a minimum of types of goods, the regulation of prices for which would give the maximum optimizing effect for the economic system as a whole, and at the same time be amenable to calculation. To the present moment energy carriers comply with this condition.

There are not so many types of energy resources, and there are ways to recalculate the cost of any energy carrier into any other energy equivalent. The cost of the basic energy carrier is absolutely unnecessary to calculate - it is enough to know that it exists, and it is the cost of the basic energy carrier that is used as a standard of

value. The energy monetary benchmark can potentially stabilize money circulation, optimize the price vector and simplify the valuation of mineral resources.

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REGIONAL COMPETITIVENESS ANALYSIS AND ITS IMPLICATIONS FOR THE SPATIAL PLANNING OF LATGALE REGION

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Abstract. *This paper offers a contribution to contemporary studies of spatial planning. In particular, it focuses on the relationship between competitiveness and spatial planning. In the topical academic debates, there has been a growing interest in raising new paradigms to introduce innovative ways of undertaking long-lasting regional development problems. Territorial assets and spatial qualities have increasingly been regarded as factors for attracting economic activities and increasing the competitiveness of regions. Spatial and non-spatial policies, planning documents, may have a significant role in enhancing the competitiveness of regions and territories by changing endogenous factors and producing shifts related to positioning and increasing the competitiveness of regions. This paper contains an analysis of competitiveness dimensions in the spatial planning documents of Latgale planning region (Latvia) by focusing on a quantitative analysis of the specific dimensions of competitiveness.*

Keywords: *spatial planning, competitiveness of regions, regional development.*

Introduction

In the recent academic and the European Union (EU) debates, there has been a growing interest in raising new paradigms to introduce new ways of undertaking long-lasting regional development problems. Territorial assets and spatial qualities have been increasingly regarded as factors for attracting economic activities and increasing the competitiveness of regions.

The EU regional policy clearly states that Europe has to be transformed into the most successful and competitive knowledge-based economy in the world (EC, 2011). Regional competitiveness is a tool that ensures sustainable growth in the entire EU by taking advantages of territorial diversity.

It has to be mentioned that more and more often, the competitiveness and welfare of certain territories and regions depend on the capacities of their inhabitants and entrepreneurs to use resources and the potential of territory development in an optimal way.

However, competitiveness depends on the way how links with other territories are formed in order to ensure that common advantages of certain territories are used in a coordinated and sustainable manner. In this respect, the

place's assets and spatial qualities have been increasingly understood as factors for attracting economic agents and, consequently, as important features for local development strategies (Servillo, Atkinson, & Russo, 2011).

Spatial and non-spatial policies, planning documents, particularly those of the EU, may have a significant role in enhancing the competitiveness of cities and territories by changing endogenous factors and producing shifts related to the relative positioning of regions. Co-operation is the aspect that distinguishes itself on the background of spatial planning (Ežmale, 2011).

However, the research studies regarding spatial planning to facilitate competitiveness are primarily oriented to large-scale territories, while regions have been increasingly recorded as a key spatial entity to facilitate the growth of remote regions. At the same time, the capacity of regions to take advantage of competitiveness in an optimal way is unexplored.

The aim of the research is to analyse the performance of spatial planning documents in accordance with the needs of the competitiveness aspects of Latgale region in Latvia. Two tasks have been set within the framework of the research:

- to elaborate a framework for evaluation of spatial planning documents based on the competitiveness factors of the regions;
- to analyse the spatial planning documents of Latgale region in the context of competitiveness aspects according to the above-mentioned framework.

Research methods – content analysis, deductive and inductive methods, theoretical analysis of scientific literature, comparative analysis, etc.

The Regional Competitiveness Analysis Framework for Latgale region

Latgale region in Latvia was chosen as a pilot region for the research. Latgale region is of particular interest not only because it is the poorest region in Latvia but also because it was the first region in Latvia working actively on the regional policy after harnessing the EU pre-accession funds (Adams, Ežmale, & Paalzow, 2006). Latgale region is situated in the eastern part of Latvia, bordering on Russia, Lithuania and Belarus.

This paper contains an analysis of competitiveness factors in the spatial planning documents of Latgale planning region (Latvia) by focusing on a quantitative analysis of the specific dimensions of competitiveness.

Likewise, the paper contains suggestions regarding spatial planning documents to facilitate the development and competitiveness of Latgale region. In the frameworks of this paper, the term “spatial planning document” means the development planning documents at a regional and local level defined in normative acts of Latvia, including a strategy for the sustainable development of a municipality, a development programme of the municipality and a spatial plan

of the municipality. Totally, spatial planning documents of twenty-one municipalities were analysed, covering all Latgale region spatial entities. The analytical framework for each spatial planning document comprised the following questions:

- 1) What production condition factors are reflected in the documents?
- 2) What demand factors are reflected in the documents?
- 3) What factors for increasing competitiveness are reflected in the documents?
- 4) What regional cluster development factors are reflected in the documents?
- 5) What are specific measures mentioned in the spatial planning documents of Latgale region to increase the competitiveness of the region?

To carry out the analysis of competitiveness factors in Latgale region spatial planning documents according to the framework explained in the next section of the paper, the following steps were completed:

- 27 individual entries were indexed with an individual keyword;
- the related keywords were summarized into keyword categories;
- the quantitative analysis was carried out based on keyword categories (see Table 1).

Table 1 From text reference to keyword category (example)

Original text reference in the document	Key words category	Keywords
Rezekne city development programme 2014-2020 – “... the inhabitants’ age structure in Rezekne city changed in last year’s rapidly...”	Human resources	Inhabitant age structure
Rezekne municipality development programme 2012-2018. “ ... negative saldo of migration”		Migration
Ludza municipality development programme 2018-2024. “....support of existing enterprises...”		Strengthening the advantages of company competitiveness
Ludza municipality development programme 2018-2024. “....support of existing enterprises...”	Factors for increasing competitiveness of regional companies	Strengthening the advantages of company competitiveness

It needs to be stated that due to the complexity of the topic and the unavoidable overlap between the categories, the allocation of individual keywords to one or another category have to be individually reviewed and argued in the analysis process. Consequently, there are different numbers of entries in these four categories. It needs to be mentioned that through categorization it could possibly lose some specific aspects which require an in-depth analysis of each competitiveness needs of spatial development.

There has been a growing interest in academic literature in recent years on creating new paradigms of regional development to introduce new ways of tackling longstanding regional problems. One of these directions is spatial planning being linked to the regional planning theory, which explains the causes and consequences of regional economic disparities and regional competitiveness. (Ežmale, 2011)

As there is an impact of European level planning activities and initiatives on planning practice in the Member States of the EU, an important issue is the practical application of theoretical aspects of planning that includes the results of discussions on basic conditions for the elaboration of high-quality and effective integrated planning documents and concepts in accordance with theoretical conclusions. Aldens (2006) indicates that the unique possibilities of spatial planning relate to its inter – disciplinary nature binding the social and the economic spheres, as well as the dimensions of culture and the environment in the framework of regional development. (Alden, 2006) Regions compete with one another to attract new businesses or industries, creating jobs and thus providing increased material welfare. Gordon (2011) argued that spatial competitiveness can be explained in different ways: as the competition of places, the competitiveness of places and territorial competition (Gordon, 2011). Van der Klassen and Van der Meer (1990) pointed out that the growing importance of the quality of the living environment in combination with the intensifying spatial interactions among European cities causes the increase and change of the nature of economic competition between the cities and regions.

There are different opinions on what factors are important to make places and regions more competitive and attractive for business. Braun (2008) argued that the place must be well reachable, have reasonable land prices, local taxes and normative regulations, as well as it should have an appropriate labour force supply of high quality (Braun, 2008). Bristow (2011) mentioned the importance of technological, social, infrastructural and institutional assets advantages (Bristow, 2011), while Begg (1999) concluded that urban performance is linked to the standard of living, the employment rate and productivity in various ways (Begg, 1999). Particularly the role of human capital spillovers, the role of human creativity and creative industries, the importance of knowledge spillovers as a mechanism underlying endogenous growth are discussed in the many theoretical

research studies (Audretsch & Feldman, 2004), (Morreti, 2004), (Florida, 2005) (Evans, 2009). Many researchers have concluded that the regional "assets" as the source of competitiveness are not only physical factors but likewise also less tangible factors, such as strong communities, democracy, social innovations, territorial identity, city image (Kunzmann, 2006), (Crouch, 2011), (Moulaert & Mehmood 2011), (Metaxas, 2002), (Lekwa, Rice, & Hibbing, 2007), et al. The diversity and difference of cultures and traditions in natural and urban landscapes are the capital of territories for their future socioeconomic development and regional competitiveness in the globalizing world (Kunzmann, 2006).

The concept of regional competitiveness lays between two levels of competitiveness, namely, the micro-economic and the macro-economic ones, and the concept has lately obtained an even greater resonance, which has mainly been facilitated by paying more attention to regions as the most important organizational and management level for ensuring economic growth and welfare (Ežmale, 2012). Regional competitiveness has been first defined as the capacity to produce products and services in accordance with the requirements of the international market and, at the same time, preserving high- and sustainable-income sources; to generalize – regional competitiveness is a capacity of regions to create a relatively high income and employment level under the circumstances of external competition (EC, 2003).

Based on theoretical conclusions and research studies (Filo, 2007; Gardiner, 2004; Gardiner, Martin, & Tyler, 2004; Huggins & Izushi, 2008; Huovari, Kargasharju, & Alanen, 2001; Rugman, Moon, & Verbeke, 2005; Schwab & Porter, 2007; Ežmale, 2011) has elaborated a model for regional competitiveness analysis adapted to the specific features of each region. Considering the previously mentioned model, the author worked out a framework for regional competitiveness analyses for Latgale region in accordance with competitiveness factors subdivided into factors for production conditions, demand factors, factors for increasing the competitiveness of regional companies, as well as regional cluster development factors. Taking into account the fact that regions are open systems, the model includes both internal and external factors of regional competitiveness. See the framework of regional competitiveness analyses for Latgale region in Table 2.

Table 2 Regional competitiveness analysis framework for Latgale region

Factors		
Categories of factors	Internal factors	External factors
Production condition factors		
Human resources	Inhabitant age structure	Inhabitant migration
	Inhabitants' qualification	Attraction of qualified labour force to the region
Infrastructure and accessibility	Transport infrastructure	External accessibility of the region
	IKT	IKT modernization possibilities
	New sites, territories and immovable property offers, competitive immovable property prices	Offers in neighbouring/competing regions
	Administrative infrastructure	Regional representations of public authorities
	Accessibility of other kinds of infrastructure and its quality (dwellings, cultural events, environment infrastructure, energy)	Offers in neighbouring/competing regions
Knowledge resources	Education and science infrastructure	Co-operation with science institutions in other regions
Capital	Attractiveness of the region for investments	Attractiveness of the region for international investments
Natural resources	Natural resources available in the region	Natural resources available in neighbouring regions
Demand factors		
Increase of demand	Structure, amount and growth of local demand	Entry of the region into external markets
Factors for increasing the competitiveness of regional companies		
Strategy, structure and competitiveness of companies	Strengthening the advantages of company competitiveness	Overtaking positive experience and application thereof in work of companies
	Introduction of effective competitiveness strategies	Competitiveness strategies including neighbouring regions for positioning in the national and global context
	Support programmes for new companies at the local level	Support programmes for new companies at the national level
Regional cluster development factors		
Co-operation between entrepreneurs, science, and public institutions		Facilitation of cluster activities
Geographic concentration of economic activities		Application of new approaches in competition and co-operation

Source: Ežmale 2011

The regions have a specific combination of factors increasing their competitiveness and, it means, that each region should focus on the performance of these factors and competitiveness advantages in comparison with the other regions. It has been defined in the EU policy documents that, in the following decade, the EU would become the most competitive and dynamic knowledge economy of the world ensuring sustainable economic growth and social cohesion (EC, 2003). Consequently, the increase of competitiveness is the central topic in the regional policies of the Member States of the EU.

Spatial Planning Documents of Latgale Region to Facilitate the Development and Competitiveness of the Region

Policy creators and planning specialists adopt decisions on the delivery of social activities in space. Several political decisions impact decisions in the private sector, with the latter being linked with the introduction of actions in a certain place. Spatial plans that consider the economic potential of each territory may enable the development of many important products and competitiveness factors that play a substantial role in the development of the territories. Pursuant to the Latvian development planning system, the following development planning documents have to be elaborated at different planning levels:

- 1) at the national level – the Sustainable Development Strategy of Latvia and the National Development Plan;
- 2) at the regional level – a strategy for the sustainable development of a planning region and a development programme;
- 3) at the local level: a strategy for sustainable development, a development programme, a spatial plan, as well as a local plan, a detailed plan, a thematic plan just in case of necessity (Ežmale, 2018).

Therefore, to perform analyses of spatial planning documents in accordance with the needs of the competitiveness of Latgale region, local-level spatial planning documents have been selected by applying the regional competitiveness analysis framework.

Sixty-three documents were analysed, covering all Latgale region spatial entities. Four groups of factors determining the competitiveness of the regions were analysed in the Latgale region spatial planning documents.

Firstly, the production condition factors reflected in the Latgale region spatial planning document were analysed through performing a quantitative analysis based on keyword categories (from text references to the key word category) (see Table 3).

Table 3 Production condition dimension topics in Latgale planning documents (N= 63)

Key word category	Key words	Counts
Human resources	Migration of inhabitants	19
	Availability and quality of a labour force	21
	Inhabitant age structure	20
	Inhabitants' qualification	18
Infrastructure and accessibility	Transport infrastructure and access to the region	54
Infrastructure and accessibility	IKT	36
	New construction areas	42
	Immovable property offers, competitive immovable property prices	3
	Technical infrastructure (water supply and wastewater treatment, etc.)	63
	Social, cultural and recreation infrastructure	63
Knowledge resources	Education and science infrastructure	39
	Cooperation with other scientific institutions	3
Capital	Financial institutions	5
	Financial sources and instruments	18
Natural resources	Natural resources, recreation resources	42

Source: constructed by author

As it can be seen in Table 3, the spatial planning documents of Latgale planning region governments contain an analysis of many suggested factors characterizing the production condition dimension of regional competitiveness. It is possible to conclude that all the key words are reflected insufficiently in the spatial planning documents of Latgale region.

The main competitive advantages related to the production factors of the region mentioned in the spatial planning documents of Latgale are as follows: (1) developed communication infrastructure; (2) competitive operating costs and the availability of resources; (3) human resources: a skilled, multi-lingual and well-educated labour force at reasonable costs; (4) tax incentives available in special economic zones of the region and other state support measures.

Secondly, the demand factors analysis was performed (see Table 4).

Table 4 Demand factors dimension topics in Latgale spatial planning documents (N= 63)

Key word category	Key words	Counts
Increase in demand	Structure of local demand	7
	Size of the domestic market	5
	Growth of the domestic market	16
	Entry of the region into external markets	4

Source: constructed by author

As it can be seen in Table 4, the spatial planning documents of Latgale planning region municipalities contain an insufficient analysis of the suggested factors characterizing the production condition dimension of regional competitiveness. It is possible to conclude that several factors (for example, the general demand structure and size of the local market) have been analysed in the limited number of spatial planning documents of Latgale region municipalities.

At the same time, according to different research studies (for example, the FDI market), investments are primarily market – seeking, with nearly 1/2 of the projects driven by domestic market growth potential and 1/3 by proximity to markets and customers. Investments can boost the competitiveness of domestic enterprises through the enhancement of knowledge and managerial skills and can serve as an important complement to domestic investment in building productive capacity to facilitate development and growth. Therefore, it is important that the spatial planning documents contain an analysis of the structure and size of the local market, the growth of the domestic market, as well as measures for attraction of investments to the regions.

Table 5 Increasing competitiveness of regional enterprises dimension topics in Latgale spatial planning documents (N= 63)

Key word category	Key words	Counts
Strategy, structure and competition of enterprises	Support for strengthening the competitive advantages of enterprises	20
	Support for the creation of new enterprises	21
	Common competitiveness strategies together with neighbouring regions for positioning in the national and global context	14
	Support for innovations	7

Source: constructed by author

According to the data showed in Table 5, the Latgale spatial planning documents contain an analysis of factors for increasing the competitiveness of regional enterprises. It is possible to conclude that several factors have been analysed insufficiently, for example, innovations, increase of competitiveness of related and supported enterprises, etc.

The spatial planning documents of Latgale region do not contain conclusions regarding the advantages of the competitiveness of the region and choosing an appropriate strategy for facilitating the competitiveness. At the same time, several Latgale Spatial planning documents contain information about different support for strengthening the competitive advantages of enterprises, for example, support

for easily starting up enterprises, and support for a rapid launch of investment projects.

Furthermore, it is outlined that the region’s enterprises can take advantage of support, training and employment programmes financed by EU funds or Latvian state support programmes. The municipalities in partnership with the Investment and Development Agency of Latvia and a wide range of public and private stakeholders (municipalities, institutions, associations) implement the POLARIS process that enables efficient communication, cooperation and the execution of tasks for investment attraction and a rapid launch of investment projects. The enterprises that choose Latgale region as an investment destination may take advantage of a number of incentives for implementation of investment projects and maximizing the profit. Lastly, funding in amount of 740 million euro from the EU Structural Funds has been allocated for the development of entrepreneurship in Latvia, with larger part of it being allocated to Latgale region in the period 2014 – 2020.

It is mentioned that enterprises of Latgale region have access to: (1) support of the Development Finance Institution “ALTUM”, for example start-up loans, accelerator funds, venture capital, export guarantees; (2) State support programmes for application of modern technologies in production processes and increasing energy efficiency in premises of the enterprise; (3) State Employment Agency support instruments for training of the labour force; (4) innovation vouchers for development of innovative products: research, creation of a prototype, certification etc.

Table 6 Regional cluster development dimension topics in Latgale spatial planning documents (N=63)

Key word category	Key words	Counts
Concentration and networking of economic activities	Geographic concentration of economic activities	1
	Support for cluster activities	1
	Application of new approaches in competition and co-operation activities	2
	Co-operation of businessman, scientific and public institutions	3

Source: constructed by author

As it can be seen in Table 6, the Latgale spatial planning documents contain an insufficient analysis of factors for regional clusters development. At the same time, it is an opportunity to eliminate shortcomings in the current spatial planning

documents in the future; and one of the directions is a deeper analysis of regional competitive advantages, including the establishment of regional clusters of competitiveness and innovations to increase the competitiveness and economic effectiveness of Latgale region, as well as the development of a territorial cooperation network for businessmen and scientific and public institutions. It is crucial to involve the academic sector and business organizations as well as other experts in this process to ensure diverse discussions.

Conclusions

The spatial planning documents of the region define development trends for different territories and places in the future in the context of their strategic roles; likewise, they define frameworks for establishing and improving future development. Each region has a unique combination of factors ensuring their competitiveness, and each region can focus, in their development, on comparative competitiveness advantages in comparison with the other regions (Ežmale, 2011). Spatial and non-spatial policies, planning documents, may have a significant role in enhancing the competitiveness of regions and territories by changing endogenous factors and producing shifts related to the positioning of the region. Depending on the specific features of the region, it is necessary to select one of the several strategies for increasing the competitiveness of the region. By an appropriate analysis of the most significant factors of competitiveness, the municipalities can approve decisions related to the measures for enhancing the competitiveness of Latgale region.

The performed analysis leads to the conclusion that the Latgale region municipalities' spatial planning documents should focus more on such competitiveness factors as (1) immovable property offers, competitive immovable property prices; (2) cooperation with other regions scientific institutions; (3) availability and capacity of financial institutions; (4) general demand structure and size of the local market; (5) entry of the region into external markets; (6) support for innovations; (7) concentration and networking of economic activities in Latgale region. Thus, it would reinforce the role of spatial planning with regard to enhancement of the competitiveness of Latgale region. The above mentioned factors should be taken into account in the process of spatial planning in order to ensure better quality of spatial planning documents of Latgale region in the context of regional competitiveness.

Summary

In the topical academic debates, there has been a growing interest in raising new paradigms to introduce innovative ways of undertaking long-lasting regional

development problems. The territorial assets and spatial qualities have increasingly been regarded as factors of attraction of economic activities and increasing the competitiveness of regions. Spatial and non-spatial policies, planning documents, may have a significant role in enhancing the competitiveness of regions and territories by changing endogenous factors and producing shifts related to the positioning and increasing competitiveness of regions. The aim of the research is to analyze the performance of spatial planning documents in accordance with the needs of the competitiveness aspects of Latgale region in Latvia. Two tasks have been set within the framework of the research: (1) to elaborate the framework for evaluation of spatial planning documents based on the competitiveness factors of the regions; (2) to analyze the spatial planning documents of Latgale region in the context of competitiveness aspects according to the above-mentioned framework.

This paper contains an analysis of competitiveness factors in the spatial planning documents of Latgale planning region (Latvia) by focusing on a quantitative analysis of the specific dimensions of competitiveness. Therefore, to perform analyses of spatial planning documents in accordance with the needs of the competitiveness of Latgale region, a spatial planning documents at local level have been selected by applying a regional competitiveness analysis framework. Sixty-three documents were analyzed covering all Latgale region spatial entities. Four groups of factors determining competitiveness of regions were analyzed in the Latgale region spatial planning documents.

The performed analysis leads to the conclusion that the Latgale region municipalities' spatial planning documents should focus more on such competitiveness factors as (1) immovable property offers, competitive immovable property prices; (2) cooperation with other regions scientific institutions; (3) availability and capacity of financial institutions; (4) general demand structure and size of the local market; (5) entry of the region into external markets; (6) support for innovations; (7) concentration and networking of economic activities in Latgale region. Thus, it would reinforce the role of spatial planning with regard to enhancement of the competitiveness of Latgale region. The above-mentioned factors should be taken into account in the process of spatial planning in order to ensure better quality of spatial planning documents of Latgale region in the context of regional competitiveness.

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EVALUATION OF FACTORS THAT INFLUENCE THE MOTIVATION OF IT SPECIALISTS IN LATVIA

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Abstract. *The present paper is dedicated to the research of factors that influence the motivation of Information Technology (further in the text IT) specialists in Latvia and the significance of these factors in overall motivation. The research contains a theoretical evaluation of approaches to measurement of motivation and presentation of the model of motivation metering.*

Being an internal individual condition, employees' motivation is hard to be measured. However, attempts of measuring employees are regularly taken by research groups and individual scholars. As many factors such as gender, generation, profession and origin influence the motivation of the employee, we believe that there is no universal approach. The goal of the research is to evaluate the weight and significance of motivation factors and calculate the overall motivation of IT specialists in contemporary Latvia. The methodology used in the present research includes an evaluation of the theoretical models of measuring an employee's motivation, suggestion of a mathematical model that is applicable to motivation measurement, conducting a survey of 78 IT specialists in Latvia and the approbation of the model.

As the result, the factors that influenced IT specialists in Latvia were estimated, their influence on overall motivation was weighted, the motivation of IT specialists was measured and an analysis of the motivation of IT specialists that belonged to different genders and generations was performed.

Keywords: *IT specialists, motivation, motivation system.*

Introduction

Evaluation of motivation is one of the difficult problems of contemporary management. It was practically proven for multiple times that, the motivation of an employee influences his or her productivity, overall performance, loyalty to the company. Motivated employees create a positive work environment; bring the company competitiveness and economic success. However, there is no clear model yet how the employee's motivation can be measured. On one hand, it is not

quite proper to judge employees' motivation based on their overall performance, as the performance depends on many factors besides the motivation. On the other hand, an examination of internal motives of an employee faces difficulties associated with his or her background, personal interpretation of motivation and psychological issues.

Disputes in the scientific community over the problem of estimating motivation show that there is no one and only correct approach. Moreover, the approbation of certain approaches in different conditions brings contradictory results. The main problem is that the factors of motivation that are important for one target group of employees may be unimportant for another target group that differs in the nationality, gender, age etc.

The topicality of such type of research in Latvia can be explained by the fact that so far there were no attempts to measure the motivation of Information Technology (further in the text IT) specialists in contemporary Latvia. The topicality is strengthened by the importance of the role of the IT sphere in Latvia's competitiveness and understanding that IT specialists form a large part of the creative class – the most innovative, educated and successful individuals that push the economy, culture and technological progress forward.

Materials and Methodology

The research question set in this paper is an estimation of the overall motivation of IT specialists in contemporary Latvia. The goal of the research is to evaluate the weight and significance of motivation factors and calculate the overall motivation of IT specialists in contemporary Latvia.

Specific research objectives of the paper are:

- estimation of approaches to measuring motivation in theoretical and practical research studies;
- suggestion of a mathematical model for measuring motivation;
- analysis of the results of the research;
- study of the difference in motivation of specific generations of IT specialists in Latvia.

The research presupposes a critical review of bibliographical sources, an analysis of statistical data and conducting a survey. A theoretical evaluation of approaches to motivation measurement provided by researchers in the fields of economics and management is implemented in order to explain the basis for building one's own mathematical model. The model includes two types of variables: the value and weight of motivation factors. In order to determine the variables, a survey of 78 IT specialists in Latvia was conducted. The employees were contacted through social media and using snowballing method. They were asked to estimate the significance of a motivation factor in general to estimate its

weight and the personal perception of the motivation factor to estimate its value. The survey results are to be analysed, and the overall motivation is to be calculated. While the research may show the difference in the perception of importance of motivation factors between different generations and genders of employees, a cross-gender and cross-generational analysis is to be performed.

Theoretical approaches to measuring motivation

In its general interpretation, motivation is defined as anything that causes an action (Simon, 1964). However, most authors researching motivation bring in their own definition in the light of their field of study and the subject of their research. To decrease the confusion, Russell highlighted three characteristics of motivation that are mentioned in most definitions: 1) motivation is an internal force; 2) motivation causes certain actions; 3) motivation sets the direction of the action (Russell, 1971).

However, the action caused by motivation is usually hard to be measured. A survey conducted by Miegel in 1988 showed that 44% of the employees would not work harder even if they appeared in a working environment that was perfect for them just because that already used all their labour potential. Another 16% said that they would not work harder, as the work was not their main priority (Miegel, 1988). This means that there is no direct connection between motivation and action. The variety of other factors such as personal interpretation, situation, employees' background matter.

As there is no direct dependence between the stimulus, motivation and action, the motivation is extremely hard to be measured. However, considerable attempts to measure motivation regularly appear in scientific research studies.

The model of motivation introduced by Vroom is based on expectation as a subjective estimation of probability of events by an individual. Vroom believed that an employee acts when he or she expects that the reward for the action will follow. In his model, Vroom applied three types of expectations (Vroom & Deci, 1970): expectations concerning labour inputs demanded for the result (LR); expectations concerning rewards for the result (RW); expectations concerning satisfaction from the reward – valence (V).

Overall motivation, according to Vroom, is a function of these three variables (Vroom & Deci, 1970):

$$M=LRxRWxV, \quad (1)$$

The motivation model suggested by Vroom allowed analysing motivation from employees' personal perceptions and expectations. However, it is not clear how the variables of the model should be measured. Moreover, the model

characterizes the probability of employee action more than motivation itself. It also does not give any information concerning the importance of motivating factors. All the above make the Vroom model rather theoretical than practical.

Expectations were later applied in advanced economic models, including the moral hazard and principal-agent models. The moral hazard economic model designed for measuring motivation assumes that an employee is less motivated to perform better when the chances to be caught doing nothing are lower. This problem can be solved with the contract theory where the model hazard model maximizes the utility of counteragents of the contract. According to Nobel laureate Mirrlees, employee utility gained from rewards with regard to efforts taken can be described as a following model (Mirrlees, 1999):

$$Eu(x, y, z) = \int_0^1 u(x, y, z)dw, \quad (2)$$

where x = reward gained by an employee,
 y = losses of the employer in the case an employee fails,
 z = expenditures on fail probability reduction, such as employee training, additional efforts,
 w = environment $[0,1]$

In this model, the reward of an employee depends of employer losses. Then it is possible to set these two variables into the contract.

The moral hazard gives an explanation of principal-agent behaviour towards the moral hazard; however, it does not explain how motivation can be measured.

Moral hazard theory was also developed in the research by Grossman and Hart by adding the assumptions of a principal's risk neutrality and independency of agents' preferences (Grossman & Hart, 1983). However, the assumptions could not overcome the same difficulties in measuring motivation, according to the moral hazard theory of Mirrlees.

According to the approach to measuring motivation presented by Kotljarov, the motivation could be estimated by the formula (Kotljarov, 2001):

$$M = \sqrt{\sum_{i=1}^N \alpha_i m_i^2}, \quad (3)$$

where M – overall motivation,
 α_i – adjustment coefficient that reflects the importance of the group of motivation factors to the employee;
 m_i – value of a motivational factor (scalar value).

In the model presented by Kotljarov, it is not clear why the value of a motivational factor should correspond to the adjustment coefficient for a group of

motivation factors, not a motivation itself. However, this approach seems the most reasonable from the point of researching the influence of motivation factors on overall motivation.

Zámečník uses the Ward method to cluster motivation factors of employees (Zámečník, 2014). The value of motivation factors are obtained through a survey. However, this approach does not take in account the importance of a certain factor in overall motivation.

Research design

Estimation of IT specialists' motivation, on one hand, is based on understanding the factors that motivate employees. On the other hand, these factors are not equally important. This is why the weight of each factor of motivation should be introduced.

In general, motivation could be estimated by the following formula:

$$M = \sum \sqrt{I_n * V_n} , \quad (4)$$

where M – overall motivation of an IT specialist,
 I_n –value of a motivation factor,
 V_n – weight coefficient of the motivation factor.

In order to estimate both the value and weight of motivation factors, two questions should be asked – one for each variable.

Question one of the survey is set as follows: “Mark on a scale of zero to ten the extent to which the motivation factor influences your motivation to work: 0 = it has no influence on my motivation to work; 10 = it has a hundred percent positive influence on my motivation to work” and it is aimed to estimate the weight coefficients of the factors of motivation.

Question two aims to find out the value of motivation factors, and it is stated as follows: “Mark on a scale of zero to ten the extent by which you are satisfied with certain aspects of your work: 0 = I am absolutely dissatisfied with this aspect of work; 10 = I am hundred percent satisfied with this aspect of work”.

The weight coefficient of a motivation factor shows how important is this factor for an IT specialist whose motivation is to be measured. In order to estimate weight coefficients, the basic question should be suggested to the respondents. Question one contains impersonal questions. Answering this question, an IT specialist shows how important this or that factor of motivation is in general. During the survey, respondents are supposed to assign a number from zero to ten to each factor.

$$0 \leq V_n \leq 10, \quad (5)$$

The list of sub-questions within question one includes the most obvious factors of motivation that reflect all standard human needs.

The value of a motivation factor is associated with the extent to which a certain need of an employee is satisfied. In order to estimate how an employee is motivated in general, the level of satisfaction by each factor of motivation should be measured. To accomplish this task, the question concerning the personal satisfaction of employees by different factors should be asked. Answering question two assumes assigning a number from zero to ten to each factor.

$$0 \leq I_n \leq 10, \quad (6)$$

The respondents were offered a list of motivation factors, and they had to put the score for every factor significant for them

The factors of motivation in Question 1 and Question 2 are identical. It is designed this way in order to: 1) reach similarity in the factors' value and weight; 2) decrease the chance of an employee's misunderstanding of a part of a question.

The present survey was offered to 78 IT specialists in Latvia. Their gender and age structure is presented in Figure 1.

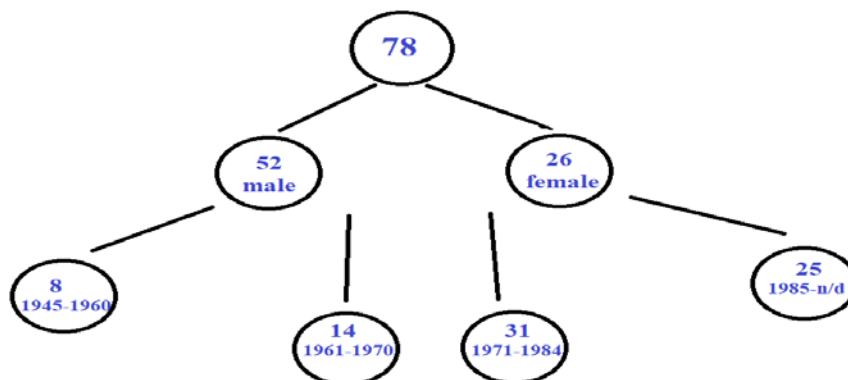


Figure 1 Gender and age structure of the respondents

For the purpose of simplification, the results of the research are adduced as average for each motivation factor.

Research results

The results of the survey enabled us to obtain the value and weight of motivation factors and are summarised in the Table 1.

Table 1 Value and weight of motivation factors

Motivation factor	Post-War Generation		Early Generation X		Transition Generation		Millennials		Total	
	Value	Weight	Value	Weight	Value	Weight	Value	Weight	Value	Weight
Interesting scope of work	7	7.5	7.1	7.5	7.3	7.8	7.3	8	7.2	7.8
Opportunity to be creative	2.2	5.4	2.2	5.8	3.1	5.9	4.6	5.6	3.3	5.7
Responsibility for one's decisions	7	4.5	7.2	4.6	6.8	4.5	6.5	3.7	6.8	4.3
Opportunity for professional development	3.1	8.3	3.3	8.5	5.6	9	6	9.2	5.1	8.9
Opportunity for career growth	3.9	8.7	4.2	8.7	5.2	8.5	5.3	8.5	4.9	8.6
Work environment	8.1	6.5	8.1	6	7.3	5.8	7.6	6.8	7.6	6.2
Flexible work arrangements (e.g. home-office, flexible working hours)	6.2	7.1	5.9	7.5	5.7	8	5.6	8.4	5.8	7.9
Atmosphere at the workplace	8.6	6	8.1	5.4	8	5.1	8.2	5.4	8.1	5.3
Good and fair supervision	6.4	6.1	6.3	6	6.3	6.1	6	6.2	6.2	6.1
Autonomy of work	7.5	6.3	7.7	5.9	7.7	6	8.1	6.1	7.8	6.0
Work in which the result can immediately be seen	6.4	4.7	6.3	5.1	6.5	5.5	6.1	5.5	6.3	5.3
Long-term work where results are not immediately tangible	7.6	2	7.1	2.1	7.5	2.1	6.9	2	7.2	2.1
Informal immediate acknowledgement by the manager	5.6	4.6	5.4	4.3	5.3	4.4	5.1	5.1	5.3	4.6
Clear responsibilities	5	8.6	4.9	8.5	4.7	8.5	5	8.6	4.9	8.5
Working with colleagues from different cultures	8.3	3.2	8.1	3.2	8.3	3.5	8.3	3.6	8.3	3.4
Opportunity to use modern technologies at work	8.4	7.7	8.5	7.6	8.1	7.6	8.3	7.9	8.3	7.7
Extraordinary financial reward for getting the job done	7.2	8.8	7.2	9.1	7.1	8.8	7.3	7.9	7.2	8.6

System of material nonfinancial benefits	4.9	8.5	5.2	8.3	5.2	8.1	6	7.8	5.4	8.1
Working in teams	6.4	4	6.6	4	6.8	4.3	6.6	4.2	6.7	4.1
Working on unique, difficult tasks	5.2	5	5.1	5.1	5.7	5.4	5.5	5.5	5.5	5.3
Working with professionals in the field	8	6.1	8	6.1	8.1	6.1	7.8	6.2	8.0	6.1
Earnings depend on the results performed	6	7.4	6.3	7.5	6.3	7.6	6	7.5	6.2	7.5
Stability and confidence in employment	5.6	8.3	5.5	8.3	6.1	7.9	6.1	7.5	6.0	7.9

The survey showed that there was concordance between the perceived importance of a motivation factor and employees' satisfaction by this factor in some cases and a noticeable mismatch in others, which is reflected on the Figure below.

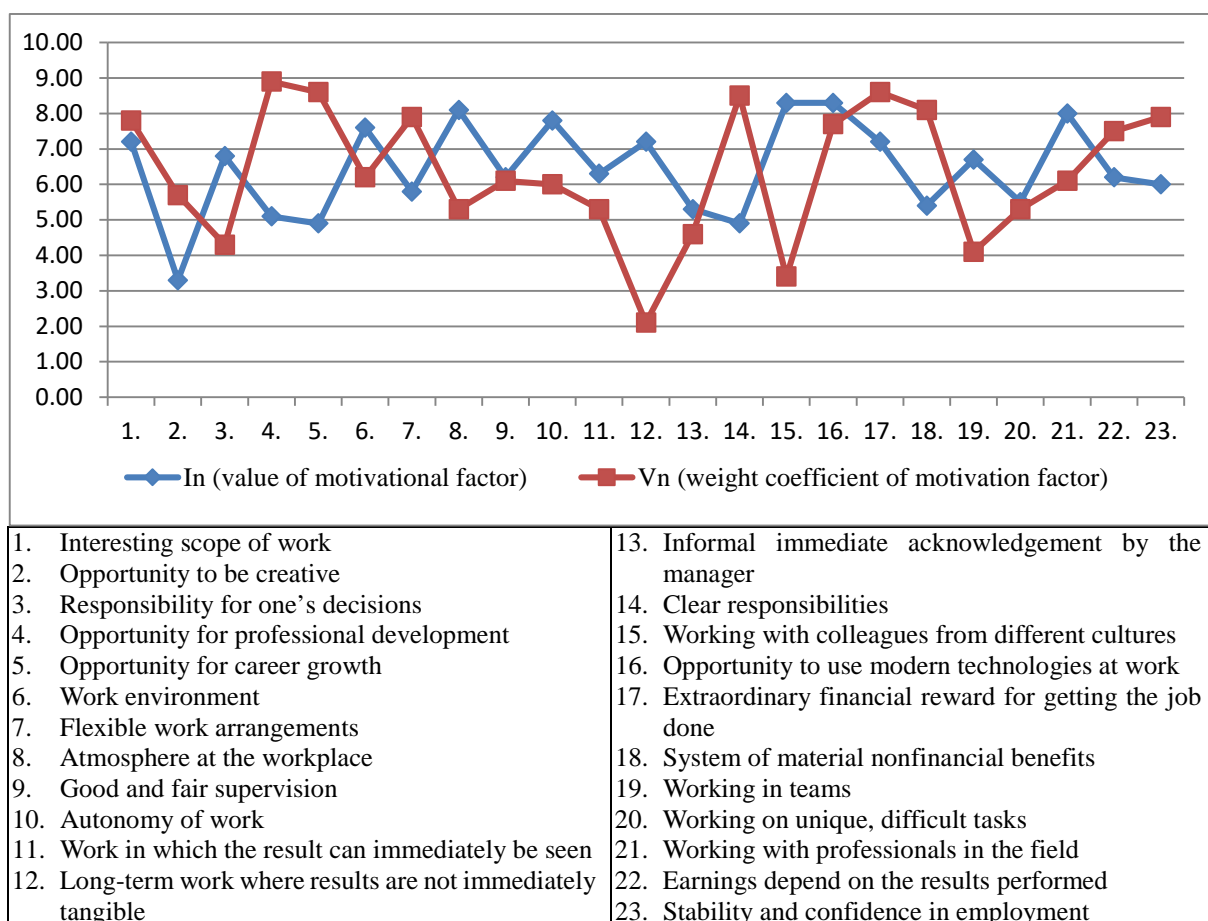


Figure 2 Concordance between the value and weight of motivation factor

The confines of overall motivation are from 0 to $23 \cdot \sqrt{100} = 230$.

$$0 \leq M \leq 230, \tag{7}$$

For the conducted research, overall motivation will equal:

$$M = \sum \sqrt{I_n \cdot V_n} = 143.8$$

This result allows concluding that the motivation of IT specialists in contemporary Latvia is above the average.

However, the research showed that there was a difference between the factors that influenced the motivation of employees of different genders. Two thirds of the respondents involved in the survey were males, while only one third were females. This reflects the real situation with employment in the IT sphere, where women occupy only around 30% of ICT jobs in the European Union (Women in ICT, 2012). The perception of women and men concerning the factors of motivation that are important, as well as satisfaction with different factors of motivation vary as demonstrated in the Figure 3.

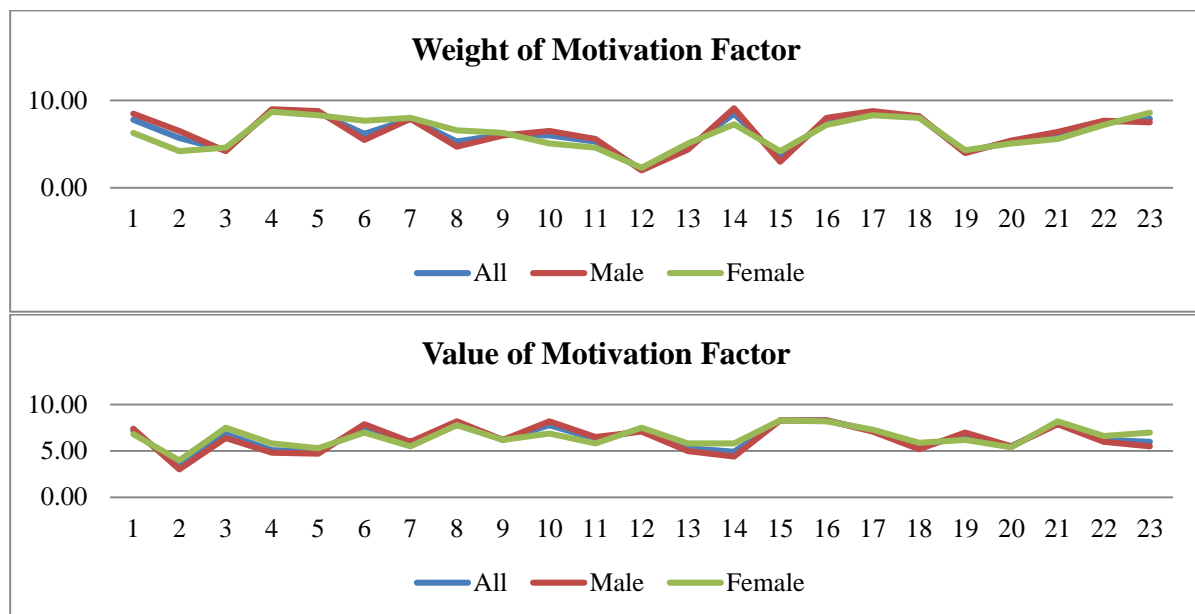


Figure 3 Weight and value of a motivation factor

It is noteworthy that the largest variance between estimations of weight of motivation factors between males and females appears in all the clusters, so it cannot be concluded that some needs are explicitly more important for men than for women.

Motivation factors that are much more important for males than for females are as follows: autonomy of work; work in which the result can immediately be seen; interesting scope of work; opportunity to be creative and clear

responsibilities.

Motivation factors that are much more important for female than for male are as follows: work environment; atmosphere at the workplace; informal immediate acknowledgement by the manager; working with colleagues from different cultures; stability and confidence in employment.

The value of a motivation factor or the extent to which the need is satisfied also varies between men and women.

Men are significantly more satisfied by the following motivation factors than women: work environment; autonomy of work; working in teams.

Women are significantly more satisfied by the following motivation factors than men: opportunity to be creative; responsibility for one's decisions; opportunity for professional development; clear responsibilities; stability and confidence in employment.

In general, the motivation of female IT specialists is higher than the motivation of male IT specialists: 144.9 against 143.1.

Along with gender differences, affiliation to a certain generation also impacts motivation. Latvia, because of its complicated multidirectional history, has an especially unique generation formation. The fact that part of the Latvian society, including IT specialists, were brought up in the Soviet Union and the other part were born in an independent Western-oriented country sets a necessity to build an approach to the classification of generations. According to the research by Apsalone et al. devoted to distinguishing generations in Latvia, the current Latvian labour force can be divided into the following generations: the Post-War Generation, Early Generation X, the Transition Generation and Millennials (Apsalone et al., 2016). The duration of these generations correspond to the factors that caused their occurrence.

Table 2 *Generations in Latvia* (Apsalone et al., 2016)

Generation	Period of time of birth	Main events and processes that influenced the appearance of the generation
Post-War Generation	1945-1960	World War II, communist ideology, hardship and privation, fast technological development
Early Generation X	1961-1970	Khrushchev Thaw, economic stagnation and economic inefficiency, deficit, influence of Western culture
Transition Generation	1971-1984	Declaration of the independence of Latvia after the collapse of the Soviet Union, open borders, transition from a command to a market economy, joining NATO and the EU
Millennials	1985-now days	Globalization, a market economy, informational technologies, total adaptation to the Western society, joining the EU

The number of representatives of each generation in the present research is uneven. However, the distribution reflects the real situation in Latvia where most of the current working IT specialists are younger than 47.

The results showed that the young generation is less motivated by financial stimulus and cares less about stability, while the older generation is more concerned about atmosphere at the workplace and stability.

In general, the most motivated generation was Millennials. However, the research showed that there was a clear distinction in motivation between the Post-War Generation and Early Generation X with a motivation score of 140.6 and 140.5, respectively, and the Transition Generation and Millennials whose motivation coefficient was about 5 points higher – 144.3 and 145.9 points, respectively.

Conclusion

The research results showed that IT specialists in contemporary Latvia do not always receive enough motivation from the factors that are important for them and the other way around. For example, IT specialists value the importance of professional development and career growth; however, they are not satisfied by the career and professional development opportunities. Conversely, they are satisfied by the opportunity to work with the colleges from different cultures, but it is not highly important for them.

The motivation of IT specialists differs in the context of gender and age. Women demand a better work environment and confidence in comparison with men. They are more satisfied by responsibility, creativity and stability factors than male employees. The motivation of female employees is slightly higher than that of their male colleges; 144.9 against 143.1.

An analysis of motivation of each generation separately and its comparison with other generations showed that the Post-War and Early Generation X were significantly less motivated than the Transition Generation and Millennials.

Millennials were more interested in the interesting scope of work, opportunity for professional development, the work environment, informal immediate acknowledgement by the manager than an average respondent.

The Transition Generation appreciated the work environment less than the other generations but cared more about the work in which the result could be immediately seen. They were more satisfied by the opportunity for professional development and less by the work environment.

Early Generation X emphasized the significance of such motivation factors as responsibility for one's decisions, stability and confidence in employment and extraordinary financial rewards.

The Post-War Generation cared more about atmosphere at the workplace, a system of material nonfinancial benefits and stability and confidence in employment and less about work in which the result could be immediately seen, the interesting scope of work, the opportunity to be creative, the opportunity for professional development and flexible work arrangements.

Limitations

The research is conjugated with certain limitations. The main one is subjectivity. Each respondent has his/her personal attitude to as his/her response values equally with all the other responses his/her subjective overreaction may influence the final result. Another limitation that is also concerned with subjectivity is the misunderstanding of questions that may take place. This limitation follows from the interview design where the question cannot be rephrased or explained.

Another limitation is associated with perceptual biases. As Bruner and Goodman showed, children from less wealthy families estimated coin sizes to be larger than children from more wealthy families (Bruner & Goodman, 1947); IT specialists in the present research might overestimate the importance of the factors they lacked the most.

Despite the possibility of slightly influencing the result, limitations are too tenuous to change the overall picture. However, in future research, ways to overcome the limitations should be suggested.

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INFORMATION TECHNOLOGY AS A CATALYST OF INNOVATIVE CHANGES IN ENTERPRISES

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Abstract. *The subject of this research study is the applications of Information Technology (IT) to support management. This is not the sole use of IT methods and means in enterprises, however, the issues related to the automation of technological processes and software for these purposes are not the subject of these considerations. The aim of this research study is to show the innovative role of IT as a factor that enables meeting the challenges posed by managers, such as improving work efficiency, accelerating (reducing time of) handling orders, entering into competition on previously inaccessible markets, and generating the value added, which goes far beyond the capabilities of a single business entity. The business model includes collaboration unhindered by the territorial distribution of individuals, or time zone differences. The measure of effectiveness is the achieved result, and the recipient of the value thus created is not interested in where and how this value is created. Dynamically changing market expectations and the needs of recipients force the reconfiguration of the manufacturing system, which is a feature of virtual workplaces.*

Keywords: *IT, innovations, management.*

Introduction

Man has searched for ways to improve work for centuries. Technological progress, which is taking place nowadays, provides inspiration to create innovative solutions in the functioning of enterprises. The subject of this research study is the applications of Information Technology (IT) to support management. This is not the sole use of IT methods and means in enterprises, however, the issues related to the automation of technological processes and software for these purposes are not the subject of these considerations.

The aim of this research study is to show the innovative role of IT as a factor that enables meeting the challenges posed by managers, such as improving work efficiency, accelerating (reducing time of) handling orders, entering into competition on previously inaccessible markets, and generating the

value added, which goes far beyond the capabilities of a single business entity. The observed technical progress in IT, measured by parameters such as the volume of operating memory or data carriers, the speed of data transmission between two points regardless of their physical location, etc., has become an inspiration to create more and more advanced solutions. At the same time, methods and approaches to building solutions, the standards of managing these processes and views on the role of IT in the enterprise have changed.

Literature review

The flow of organizational information, which allows making decisions, should be considered in its entirety (as a system); it has been an expectation for years. Worth mentioning are the now historical definitions of information systems, whose mode of operation complies with the requirement of a comprehensive perception of the flow of information. In 1975, Yourdon said that what should be used to support management is direct action systems that accept inputs (data) directly from the area in which they are created, i.e. systems in which outputs or results of calculations are passed on directly (and in real time) to the area in which they are required. In 1985, Strześniewski formulated the definition of a direct action system, which he understands as a tele-information system with direct access to data, obtained through telecommunication lines (on-line). The purpose of such a system is to provide users in a timely manner with the required information from sets that contain data collected directly in their original environment. Both of these definitions show a vision of solutions that could not be implemented at the time of their formulation. One can say that these were examples of the ideal system, as described in the Nadler convention (Kisielnicki, 1986). This vision, understood in terms of strategic management, should take into account both the perspective of the functioning of the entire organization and individual positions. The immediacy referred to in the above definitions implies the need to ensure the following properties of management-supporting IT systems: remote access to data, operating on direct data sets, "man-centeredness", i.e. using information obtained from the workstation for the user's own needs, and the possibility of using the system by different users, at many workstations. This vision understood in terms of strategic management should take into account both the perspective of the functioning of the entire organization as well as individual positions. The requirements contained in the above quoted definitions have determined a very important direction in the development of management-improving tools. They indicated very clearly that expectations towards IT solutions should be the result of collecting and analysing the requirements formulated by users (managers and employees of the IT department).

Research approach and methods

In the conducted research, a multi-method was used (Kawalec, 2014) in order to obtain well-founded, reliable research results, free of adulterations resulting from personal preferences, prejudices and limitations of a single approach. To overcome the lack of accuracy of a single method, triangulation was used to minimize errors resulting from the specificity of the measurement, i.e. several different research approaches were used. This multiplicity of adopted perspectives is aimed at enriching the knowledge of the research subject, which is recommended, e.g. by Denzin (1988) and Flick (2011). It is worth emphasizing that the research subject is complex, multi-element, and influences the functioning of the organization and its ability to achieve economic goals. It is impossible to analyse a management-supporting IT system as an independent entity. Its features result from the context of use in a particular organization. The increase in the complexity of application software resulting from many factors also affects the adopted research methods.

The source material was collected using four research methods. First of all, these services were provided in accordance with the principles of Action Research (Chorostowski & Jemielniak, 2011). The research covered enterprises for which business software implementation-related services were provided. The companies represented various industries, various sizes and various expectations defined at the outset, and the services included at least one of the stages of the implementation process, i.e.: analysis, process modelling, development of the solution using the chosen software, the implementation process management, post-implementation audit and services related to the assessment of the company's IT potential and strategic development plans. Research studies of this nature have been carried out by this team for many years (Kajrunajtys, 2001). The sources of empirical information were also surveys, i.e. direct interviews and questionnaires (Kajrunajtys, 2016; Kajrunajtys, Malik, & Gródek-Szostak, 2017). The results of the secondary data analysis were also used, which included the analysis of documents created during the preparation or implementation of an IT system and post-implementation audits.

Discussion and results

A literature review points to a conclusion that researchers see innovation in a variety of ways. It probably depends on the adopted research perspective. In general, two approaches can be distinguished in the approach to interpreting innovation:

1. the process approach,
2. the competence approach.

Innovation considered as a process is understood as a cause and effect relation of a sequence of activities necessary to obtain a solution of an innovative character. This approach to innovation is called a linear model. We find examples of the processual perception of innovation in the definitions below:

- innovation is considered as a process of accumulating knowledge by both individuals and organizations in the course of learning (Matusiak, 2011);
- innovativeness is defined as the process of introducing qualitative changes in technology, work organization, management and marketing (Nowa Encyklopedia, 2003).

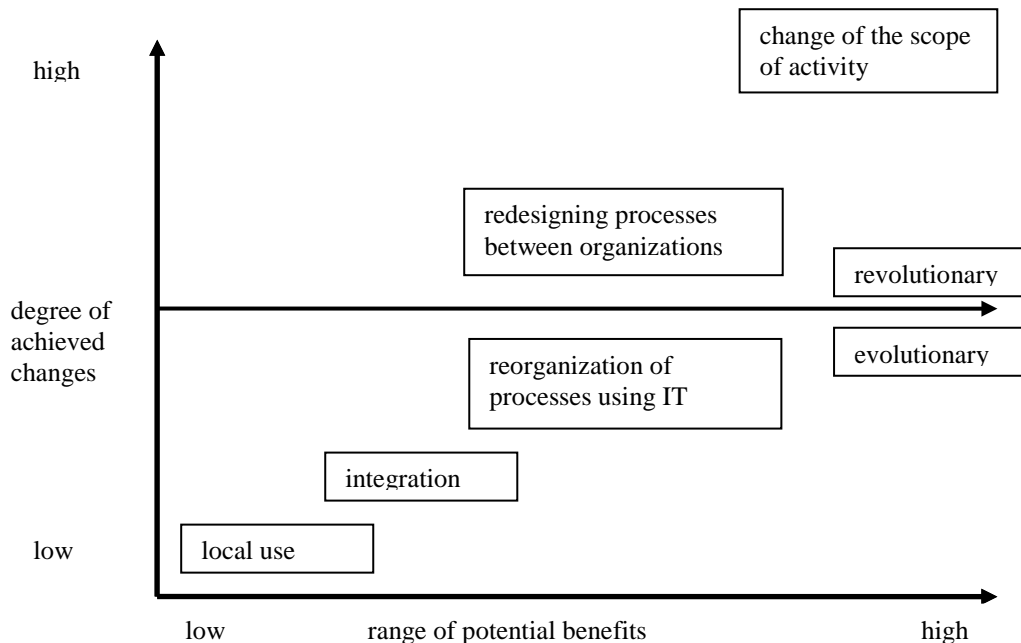
In terms of competence, the authors emphasize the ability and motivation (of individuals and organizations) to conduct scientific research that improve and develop production, to search for new solutions, ideas and concepts and to implement a new or significantly improved product (an item or service) or process, a new method of marketing or a new organizational method in business practice, workplace organization or relations with the environment (Górka, 2015). The competency aspect of innovation, understood as the ability to be able to create new and improve existing products, processes, management systems and organization, is also emphasized by Panek (2007). The problem of innovativeness is also the subject of a research study by Weresa (2002), who defines it as the ability to create innovations. On the other hand, Bogdanienko (2004) defines innovation as the ability to create and implement changes in various spheres of socio-economic life. It is possible thanks to the systematically collected knowledge and experience. Okoń-Horodyńska (2004) emphasizes the motivation of participants in economic processes to constantly search for new research results, new concepts and ideas, to produce improved devices, materials and services targeted at the market. This perspective of perceiving innovation (the ability to create and implement new and/or modernized products, new and/or improved technological or organizational processes) is also found in the approach of the Central Statistical Office (GUS). It is based on the Oslo Manual (2005).

In this context, it is difficult to agree with the opinion of Grzybowska (2012) that innovations have a subjective character, while innovation is associated with a process, an action that results in innovations. The basis for innovativeness is the attitude of people, their curiosity of the world, or ambitions, which push them to undertake activities that can be described as innovative.

The contemporary approach to innovation is created in the so-called system model. It is assumed (Stepniak-Kucharska, 2012) that the intensity of innovative activities is more than just a sum of individual elements (employees,

organization and the business environment). It is a resultant of interaction between these elements and the availability of financial resources necessary to conduct R&D works, to purchase know-how from external sources, equipment and software, or to train employees.

Since the emergence of practical IT solutions, areas where hardware and business software will provide value added are sought.



*Figure 1 Transformation levels induced by IT
(own study based on Peppard & Rowland, 1997)*

The development of IT (understood as the ability to use available information technology) can also be considered as a trigger for innovative changes in organizations and in relations between organizations (Figure 1). Correlating the degree of changes achieved in organizations thanks to IT with the range of possible potential benefits allows distinguishing five levels of evolution. These levels were determined by the Peppard and Rowland author team in 1997. The experience of enterprises and the observation of the market offer of IT products allow a conclusion that this model describes well the progress being made, despite the passage of time. The first application of the software that enabled achieving each of the levels listed in the figure was a breakthrough. In each of the enterprises this was (and in many cases is) an innovative, enterprise-wide change.

The breakthrough was the use of domain systems (mainly for warehouse management) developed in the early 1960's. They have been designed as

solutions providing services only for a strongly (narrowly) defined area of a given enterprise. Local influence and use in various parts of the organization separately provided only local benefits (Chmielarz, 1996). The use of domain systems is characterized by the dispersion of data resources, which makes them redundant from the point of view of the entire organization (Zaskórski, 2015).

To strengthen the potential of domain systems, an effort has been undertaken to integrate them, combining different solutions into a single one. The integration of domain systems involved linking separate processes and sharing resources. The benefits achieved in this way were the result of improving existing systems, and the changes mainly concerned technological aspects. The integration process can be seen as bringing together of resources used in operational (including tactical/indirect) and strategic management. The evolution of integrated systems has been accompanied by changes in IT technology and software, which allowed building increasingly complex, functional and comprehensive systems with an ever greater degree of integration (Soja, 2005). Some enterprises in which an ERP (Enterprise Resource Planning) system has been implemented also use domain applications to complement the missing functionalities. Own research identifying the actual scale of the dispersion of business applications in workstations shows that the statistical employee uses three applications simultaneously while handling a single task (Kajrunajtys et al., 2017).

A significant change is related to the reorganization of business processes with the use of IT (transformation level III). This change should be combined with the announcement of the MRP (Material Requirements Planning) standard by the APICS (American Production and Inventory Control Society), initially describing the material management of the company. This standard had set a level of expectations towards IT systems used to support management. They were formulated with the view of functionalities resulting from the analysis of management's information needs. This approach was radically different from the one used so far, because it articulated the needs of managers as a source of software requirements. The APISC model has evolved, setting further requirements for IT systems. The MRP II system published in the 1980s is seen as the standard for resource planning systems. The APICS distinguished 16 groups of functions that should be met by a MRP II class system. Later, the MRP II was enhanced with further functionalities such as human resources, payroll and accounting, and started to be referred to as the ERP system standard. The essence of the change which characterizes level III (Figure 1) is that the system provides support for all areas of the company's activity, which form a single entity and are guided by one goal. This system is to enable management support at all levels. The scope of changes (implementation of the IT system in the entire company) also gives much better results: the collected data cover all

aspects of the company's activity and can be used for analysis in decision making at all levels.

IT transformation level IV includes the redesign of processes between organizations. Recognizing that business relations between organizations (not only enterprises, but also, e.g. public institutions) require efficient exchange of information has become an inspiration to seek IT solutions that could not only support but also radically improve this exchange. The first solutions were IT systems known as EDI (Electronic Data Interchange), which allowed exchanging data in the formats described by international standards between the IT systems of trading partners, with minimal human intervention. However, when the role and importance of the relationships between enterprises that cooperate to provide market value was noticed, this posed a new challenge for IT developers. The organization's environment (e.g. in the logistics chain or within a network) becomes an inspiration for the creation of the organization's strategy and consequently requires building an information system and configuring software to support functioning in a turbulent environment (Kajrunajtys, 2016).

The highest level of IT-induced transformations that arise as a result of revolutionary changes - those in the scope of company's activity - generate the highest level of potential benefits. Achieving this level requires building conceptual market models using current IT capabilities.

Conclusions

As an independent discipline, IT is above all a causative factor that allows enterprises to achieve goals, which cannot be achieved with other methods. The evolving direction of the flexibility of the organization's functioning as a response to the requirements of an increasingly dynamic environment is possible thanks to IT. Emerging virtual economic structures are characterized primarily by the speed of adaptation to changes in the environment. The foundation of their functioning is communication technology used in an innovative way, as a medium for launching a business model.

The business model includes collaboration unhindered by the territorial distribution of individuals, or time zone differences. The measure of effectiveness is the achieved result, and the recipient of the value thus created is not interested in where and how this value is created. Dynamically changing market expectations and the needs of recipients force the reconfiguration of the manufacturing system, which is a feature of virtual workplaces. This is where the definitions of real-time systems in virtual organizations cited in the introduction are fully implemented.

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THE INTER-ORGANIZATIONAL NETWORK MANAGEMENT MODEL AND THE DIFFUSION OF INFORMATION

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Abstract. *Contemporary companies are looking for opportunities to stay in the market in the long run. They invest a great effort in this purpose and create logical concepts for joint business activities, which take the form of inter-organizational networks. The challenge is to manage such a defined whole, as well as to provide information for decision-making. To streamline management, it is necessary to organize and manage the information flow in the network. The purpose of this paper is to outline the authors' approach to the design of an information flow in an inter-organizational network that takes into account the requirements of network managers. The starting point is to develop a common vision of the network's business model. On this basis, the functionality of the information subsystem should be defined.*

Keywords: *firm performance, information flow, business network, inter-organizational network.*

Introduction

The inter-organizational network is the entrepreneurs' response to turbulent changes in the environment that require taking up increasingly demanding activities for the organizations to exist and provide competitive products and services. Another important factor for consolidating cooperation is technological progress, which allows entrepreneurs to efficiently provide more and more functional solutions, as well as to consume the innovative offer of partners for the benefit of the value delivered to the market.

Business entities have diverse experiences in cooperating with other market participants. These experiences are gained through cooperation undertaken on

their own initiative as well as through cooperation stimulated by, e.g. regulations and guidelines of public programmes supporting the creation or development of B2B and B2C cooperation. After a period of turbulent formation, the functioning inter-organizational networks need support, which enables them to build effective and efficient information channels to supply decision-makers with the necessary information and knowledge.

The purpose of this article is to outline a proprietary approach to designing information flow in an inter-organizational network. This approach is based on the assumption that the purpose of the information flow is to meet the information needs of network managers. The starting point for the study is to develop a shared vision of the business network's business model. This is essential, as it allows network participants to understand their place, role and information obligations (both as providers and recipients of information). The necessary functionalities of the information subsystem should be defined on this basis. The consequence of designing an information system should be a set of requirements for an IT system that supports the information flow. The identification, selection and implementation of software components supporting the specified requirements is a standard task of computer science and is not the subject of consideration.

The research was carried out as applied research. Its aim was to formulate new pragmatic conclusions that could be implemented in order to improve operational efficiency. In particular, an answer was sought to the question whether it was possible to formulate a uniform scenario for the information flow for any network organization. The research included both descriptive work to identify the structures and mechanisms of functioning, as well as explanatory work investigating the relationships and dependencies between the analyzed phenomena, and at times also replication work extending the subject of the research and allowing to formulate new hypotheses.

Empirical data used to develop assumptions of the approach to designing information flow in inter-organizational networks was collected during direct research. The research was conducted in the years 2010-2015 at the request of representatives of organizations forming inter-organizational networks. The subject of the study was 11 inter-organizational networks, varied in terms of scale of operation, organizational forms of functioning and the stage of developing and enhancing network relations. The approach proposed here was built in the course of actual work, achieving an increasingly satisfactory level of excellence. The approach applied had the features of Action Research (Chrostowski & Jemielniak, 2011). The above outlines the main and key stages of work. The authors are aware that the issue is very broad and its comprehensive presentation goes far beyond the scope of this study. The discussion covered selected elements considered crucial for understanding the

essence of the functioning conditions and information needs of the managers of inter-organizational networks.

The essence and importance of the information flow in the inter-organizational network

We treat the inter-organizational network as an organization (an organized entity). The factor that distinguishes inter-organizational networks is the manifestation of one of the most popular paradigms of management science, called the paradigm of synergy. The paradigm of synergy is commonly understood as "the cooperation of an organization and its elements, which is more effective than the sum of their separate activities" (Kisielnicki, 2012). Interoperative elements of the inter-organizational network should generate a combined result in accordance with the adopted criteria that are greater than a simple sum of effects achieved by each network element separately. The factor that undoubtedly contributes to the establishment of inter-organizational networks has been Information Technology, which provides tools for creating relationships not only within the company but also beyond its borders. Thanks to Information Technology, it has become possible to include the management of information needs of employees of business partners (suppliers, clients, co-operators, etc.) in the functionality of Information Systems. The relational approach in management sciences is seen as one of the concepts of building a competitive advantage (Macias, 2008). Thanks to the ever increasing possibilities of Information Technology, the formula (orientation) of the competition can change: from comparing with other companies in order to build one's own offer to cooperating with selected partners, including competitors, in order to build a joint offer. This is emphasized by researchers such as Klonowski (2004), who claims that "the survival and development of a modern enterprise is becoming an increasing challenge for the managerial staff and is dependent, to an extent not yet seen, on the efficiency of its Information System".

That information is a resource that enables organisations to prepare background for solving organizational problems. Kisielnicki (2012) emphasizes that this is particularly related to the shortage of various goods, essential from the point of view of doing business and implementing customer value delivery processes. It seems that the problem of scarcity of goods that are indispensable in business processes of enterprises (production capacity, employees with specific competences, specialized services) should be perceived more broadly, in terms of economic assessment. From the point of view of a combined result, it is more reasonable to own resources and sometimes use them in a limited scope, or to acquire them as part of cooperation with other enterprises. Decisions on

acquiring resources in cooperation lead to the creation of inter-organizational networks in various forms and modes of operation.

Business process management within the inter-organizational network is conditioned by building an efficient Information System, to supply information to decision-makers. Regardless of the context in which it is entered (a single organization or inter-organizational network), the Information System imposes requirements, the fulfilment of which should guarantee the provision of appropriate information to recipients. Upon analysing the opinions of authors in the literature of the subject, three groups of views can be distinguished depending on the addressee of quality requirements that allow managers to make decisions and the organization to achieve goals. According to this criterion:

- the first group of authors points to specifying desirable features of the Information System, assuming that the quality of decisions depends on it,
- the second group of authors points to information flows,
- the third group of authors believe that the quality of decisions depends on the quality of information.

An example of the first approach is Gąsowska (2014), who indicates “availability, timeliness, reliability, completeness, comparability, reliability, process ability, flexibility, efficiency, economy, adequate response time, detail, system stability, priority, confidentiality and security” as the requirements for the Information System. She also points out that “the Information System should also be ergonomic, which is related to ensuring user-friendliness of the Information Technology System”. The representatives of the second approach are Wąsik and Kotulski (2002). In their opinion, "the information received could form the basis for making optimal decisions; the flow of information in the enterprise must meet appropriate conditions ensuring the fulfilment of quality requirements". An example of an opinion referring to the quality of information as a factor determining the quality of activities in an organization, i.e. the third group highlighted above, are Podobińska-Staniec & Wilkosz (2014). They claim that "processes should be implemented on the basis of reliable information, allowing for effective use of the enterprise's potential".

The efficient and rational functioning of the management system is conditioned by:

- managerial skills that can coexist within the developed business model,
- functionality of the Information System that corresponds to the needs of managers and reporting obligations resulting from formal and legal requirements,

- Information Technology solutions that are agile enough to adapt to the changing information needs of their users, i.e. recipients of information.

As in the case of other resources, information gathered in the organization should be managed. "Proper management of information resources increases the quality and effectiveness of public administration activities. Good information management is an instrument through which better provision of public services is possible" (Sasak, 2008).

The literature review allows a conclusion that the system definitions either refer to the enterprise, or are described in a more general way, which makes it possible to refer them to the inter-organizational network. An example of the approach relating an Information System to an enterprise is the definition proposed by Sęk (2001): "The Information System in an enterprise is understood as the flow of appropriately targeted and selected information between departments within the company's organizational structure in order to ensure ongoing registration of phenomena and control of activities, as well as their compliance, with the assumed objectives of the organization". In determining the flow of information, Wasik and Kotulski (2002) use a wider context, pointing out that the flow of information is "defining connections between objects that are the source of information, and the objects that utilize this information (for their own purposes, or to process it and send it to other objects). Each process of data flow between objects can be treated as an object, with an internal structure and parameters responsible for its functioning. Such an object can be a specific implementation of a common pattern for all data flows. A data flow diagram is a graphical record of the object layout and data flows between them".

A business model as a way of creating the concept of value delivery

Reflections on the essence of the business model appear in publications from the 1990's, focusing the attention of business people, consultants and researchers who turn many research projects into separate subjects of study (Gassmann, Frankenberger, & Csik, 2003). The topic of business models is analysed in many different fields, but first and foremost, in management and IT (as the aspects of building IT applications in management), as well as e-business.

In general, a business model is defined as a tool to describe how elements interact with each other. More specifically, a business model is often presented as a superior concept, presenting the components of a business and how they are integrated. As a concept or tool, a business model is used to direct changes and allows focusing on innovation, either in the organization or within the model

itself (Demil & Lecocq, 2010; Cupiał, Kobuszewski, Szelaż-Sikora, & Niemiec, 2015). P. Seddon and G.P. Lewis (2003) see a business model as an abstract representation of some aspect of a company's strategy. There is also a group of researchers who refer in the definition of a business model to the value that business provides to stakeholders. Some of the definitions are as follows:

- a business model is the company's logic, method of operation and how it creates value for stakeholders (Casadesus-Masanell & Ricart, 2010),
- a business model refers to co-workers who form business relationships in order to create value for clients and wealth for their stakeholders (Tapscott, Ticoll, & Lowy, 2000),
- a business model includes a concept, potential (resources necessary to launch the concept) and value (Applegate, 2001).

For A. Osterwalder and Y. Pigneur (2002), the ontology of the e-business model is based on four main elements:

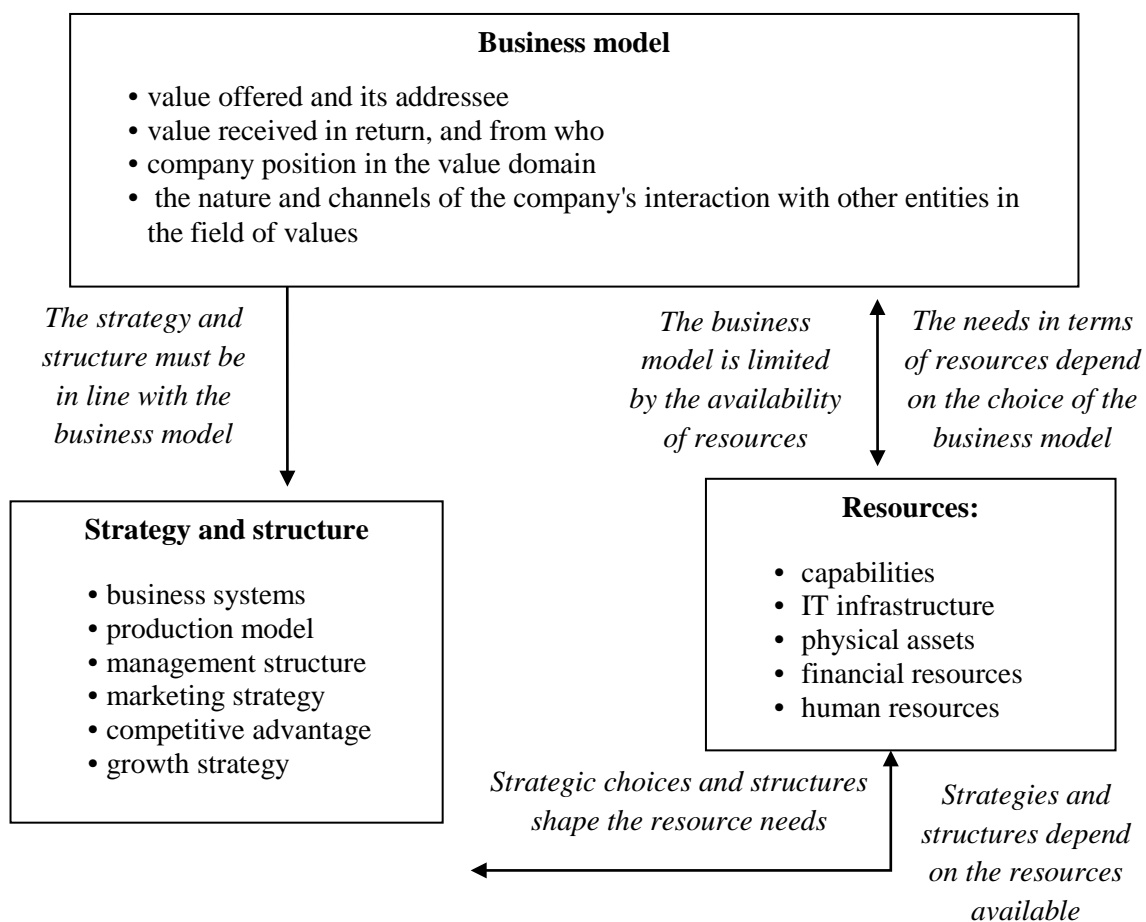
1. products and services offered by the company, which represent a significant value for the client and for which the client is willing to pay,
2. the infrastructure and network of partners that are necessary to create value and maintain good relations with clients,
3. the capital of the relationship that the company creates and maintains with the client to meet his/her needs, which generates long-term revenues for the company,
4. financial aspects that can be found in all the three previous elements.

The development and design of business models in the last decade are becoming more and more important. The factors that particularly affected the changes in competitive conditions include: growing globalization, deregulation of many market segments, faster innovation cycles and high degree of economic integration of more dynamic markets. Professional consulting services offering methodological support to entrepreneurs are also important for the development of business models.

Companies that want to be competitive on a global scale must strive to adapt to constantly changing market conditions at a rational rate. Business model management supports companies in creating new business ideas, researching business activities and modifying existing strategies and structures by systematically simplifying their complexity and dynamics. As tools for streamlining business conceptualization, business models are important to management support, as they provide guidelines for business decisions through a systematic analysis of success factors.

Business models are considered an effective method for gathering information about high-level business needs (Persson & Stirna, 2014). Based on business models, and information on the type and amount of funds available for

the company, a business strategy can be developed. Figure 1 presents the relationship between the business model, resources and strategy in a repeatable process supporting the selection of a business model. If a company decides on a business model for which it cannot acquire the necessary resources, it must re-evaluate the business model options in order to find a model that is compatible with its resources. If this has been achieved, the company must develop strategies to implement the business model. In this process, some strategic decisions may require resource changes, and this may result in the need to re-design the changes in the original business model. Therefore, this process should be carried out repeatedly.



*Figure 1 Relationships between the business model, resources and strategy
(own study based on Ross, 2003)*

The above-mentioned approaches to the business model have been formulated by the authors as a description of specific components and their relationships. In business practice, presentations built using simple graphic objects are also used. It seems that the most widespread business model presented graphically is the Canvas model. It has the character of a template in

which the characteristics for a model developed for a specific situation are entered. The Canvas model has an academic background and was presented as a doctoral thesis by Osterwalder (2002).

The inter-organizational network as a management object

According to Mazurkiewicz & Frączek (2007), the inter-organizational network "presents a way to organize mutual ties between organizations". Lachiewicz & Zakrzewska-Bielawska (2010) include people in addition to the organization, indicating that the network is being created "in order to exchange information, ideas and resources". In these considerations, the term "inter-organizational network" was used to emphasize cooperation established by several entities. Podolny & Page (1998) refer to this approach directly, defining the network form of the organization as any collection of entities ($N \geq 2$), which carries out repeated, permanent exchange relations with others, and at the same time does not have a legitimate organizational body to resolve disputes that may arise during the exchange.

Among the conditions for cooperation of enterprises within the network, the authors mention:

- mutually complementary goals of organizations wishing to establish cooperation relations,
- similarity of the organization's attributes (the so-called inter-organizational proximity),
- understanding and accepting the departure from the hierarchy principle for the voluntary creation of a network of cooperation between various entities to implement specific strategic intentions,
- inter-organizational networks are created not only to use the partners' information resources, but also to increase the volume of information resources and skills.

Managing an inter-organizational network requires adapting the management mechanisms to the characteristics of the network. Since the expansion of the network and the system of connections takes place mainly in the vertical system, this leads to the intensification of the interdependence of participants as elements of the global system. Leaders-coordinators emerge, polarizing the other participants. Following this, the direction of information flows is changing. Well-known vertical flows (planning and reporting in organizations) are extended to flows and horizontal communication. In addition to the formal structural links of organizational units, links between partners develop, which requires dedicated information flows.

Conclusions

Data acquisition is a fundamental function of an information system that ensures that primary data is recorded at the location of the business transaction described by this data. The scope of transaction description by means of attribute values results from two premises:

1. formal and legal requirements imposed by the organization's environment (e.g. legal and tax regulations, environmental protection, etc.),
2. the needs of the organization's managers, i.e. the attributes of transactions, the status and changes of which managers observe in order to make business decisions that align with their objectives and scope of responsibilities.

On the one hand, it seems that the aim should be to ensure that values for as many as possible transaction attributes should be registered. Having multi-attribute primary data sets seems usable for various analyzes in the future. However, the economic aspect becomes an obstacle to such an approach. Recording and then storing attribute values that are not used in any application is an unjustified expense. If the inter-organizational network is not an economic entity entered on the list of business enterprises (and functions only as a voluntary declaration of cooperation of economic entities that constitute it), then the data acquisition for the needs of network management is subordinated only to the needs of the managers. The list of attributes should be a result of the analysis of decision-making needs. In addition, the frequency requirements for recording primary data should be specified. These elements will co-create requirements for IT solutions.

Summary

The presented approach to designing information flows for network management purposes was based on experience. Employees of enterprises taking part in the development of a satisfactory solution understand the idea of the network and can define its requirements. There are, however, insufficiently available patterns of conduct. Actions undertaken by teams are not always efficient and effectively aimed at the set goal.

The research undertaken in the field of management sciences is aimed at developing a methodology that will include a universal work scenario, include suggestions for the use of specific methods, and indicate the critical work results.

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MARKETING STRATEGY IN THE DIGITAL SPACE

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Abstract. *The aim of the research is to determine the preconditions for integration the Ukrainian digital market into the EU's Digital Single Market. The article is devoted to the definition of preconditions integration of Ukraine into a single digital market EU in accordance with the realities of the domestic market digital integration priorities. The article is identified trends in the development of Ukrainian market of digital technologies, comparison of individual indicators it development of appropriate indicators of the EU countries, revealed the degree of difference between these principles and trends, directions outlined measures to solve the problem "digitalization" Ukraine and creation of favorable conditions for cooperation with the European Union in the field of information and communications technology and future integration into the EU single digital market. It also identified high priority digital media channels and reasonable "gap" priorities of digital media distribution channels, due to the level of ICT use in countries. The paper analyzed Internet Stats and Facebook Usage in Europe and the necessity for priorities of the digital media space, depending on the selected region of the distribution at the stage of development of a marketing strategy. The research employed the following methods: monographic and descriptive, analysis and synthesis, comparative analysis, and statistical analysis.*

Keywords: *digital space, globalization, marketing, media channels.*

Introduction

Modern marketing is constantly changing, moving from one condition to another. Scientists refer to digital marketing as the use of all possible forms of digital channels to promote the product, and the Internet, TV, radio, social media

are all tools of digital marketing (Daft, 2002; Doyle & Stern, 2006; Day, 2002; Cravens, 2008).

Digital marketing (interactive marketing) from the point of view of marketing communications involves the use of all possible forms of digital channels to promote the brand. Digital marketing is closely intertwined with Internet marketing, which is part of it, because it uses the same communication channel (Internet), and digital marketing involves using more communication networks, including gsm, gps, gprs, bluetooth, WiFi and the Internet, because it has already developed a number of techniques, allowing reaching the target audience even in the offline environment (the use of brindavana applications in computers and mobile phones, sms/mms, digital advertising displays on the streets, QR codes in posters and magazines, etc.), dragging them into the virtual world.

Digital marketing strategy can include email marketing, social media marketing, pay-per-click, display ads, blogs and search engine optimization.

The aim of the research is to determine the preconditions for integration the Ukrainian digital market into the EU's Digital Single Market. The research employed the following methods: monographic and descriptive, analysis and synthesis, comparative analysis, and statistical analysis.

Digitalization of the economy and the "gap" of marketing priorities

2017 has already been cited as a 'year of change' by many marketers (Jeanes, 2017). Out of a list of 22 media and marketing trends measured on Marketing Priorities 2017, a new set of themes and priorities have emerged. These revolve around audience measurement, accountability, and personalised content, a rekindled focus on trust, and greater transparency and collaboration across the industry. The top 15 Marketing Priorities ranking by sector are available in Figure 1.

As it can be seen from Figure 1, the highest priority distribution marketing in 2017 was "Content marketing". It is worth noting the high priority digital media. The obtained results indicate the necessity of formation of a marketing strategy in the digital space and the corresponding directed evolution of digital marketing and the high priority of digital media (Kitchen & Proctor, 2015).

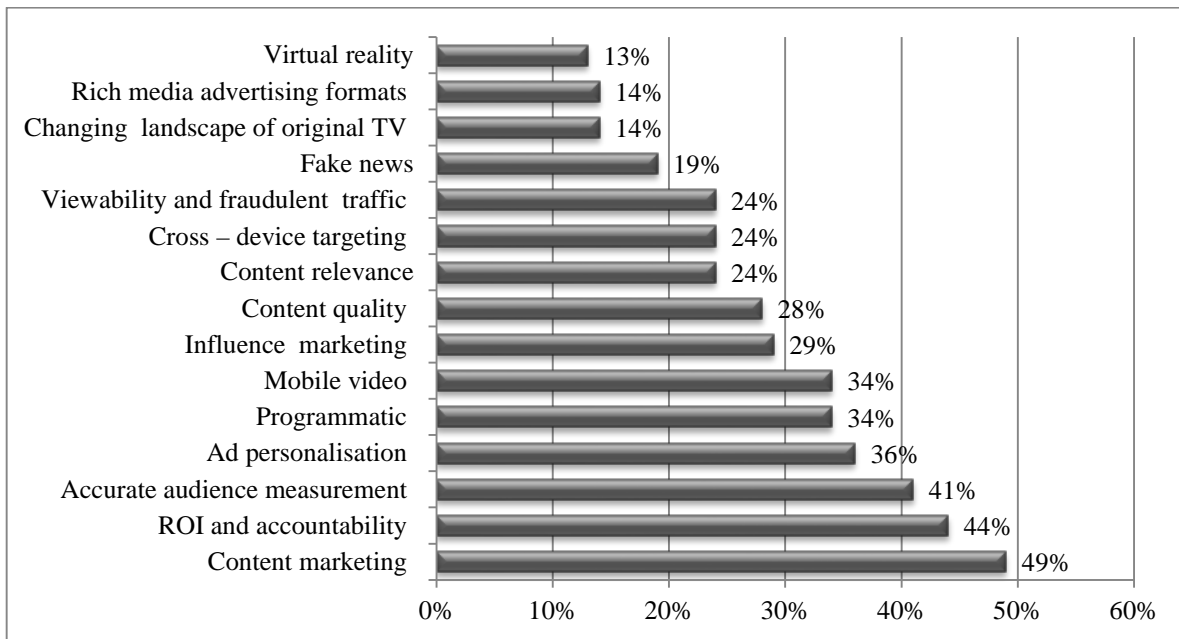


Figure 1 TOP 15 Global Marketing Priorities 2017 (Jeanes, 2017)

Digital media are targeted channels, allowing marketers to conduct ongoing, two-way personalized dialogue with each customer. Such dialogue, based on the use of data obtained as a result of past interactions with the customer to service the subsequent contacts, works like a neural network. In addition, digital media allow us to obtain analytical information about the behaviour of customers, their socio-demographic profile in real time, to establish a direct contact and to obtain feedback to improve and optimize this interaction. Digital media, except for the Internet, include: digital TV, radio, monitors, displays and other digital means of communication (Hushko, 2015).

Modern tools of digital marketing are integrated marketing communications in the digital field: promotion on blogs and social networks, specialized websites, viral advertising, PPC advertising, QR codes, social marketing, targeting, lead generation and other forms that bring together the tools of advertising, research on the target audience (Hushko, Mietule, Slyusarenko, & Sheludiakova, 2017; Kannan & Hongshuang, 2017). In fact, it is a large complex that, on the basis of digital technologies, use different types of marketing to promote the brand and product (Izmaylov, Yegorova, Maksymova, & Znotina, 2018).

Advantages of digital marketing are defined by the following factors (Fig.2).

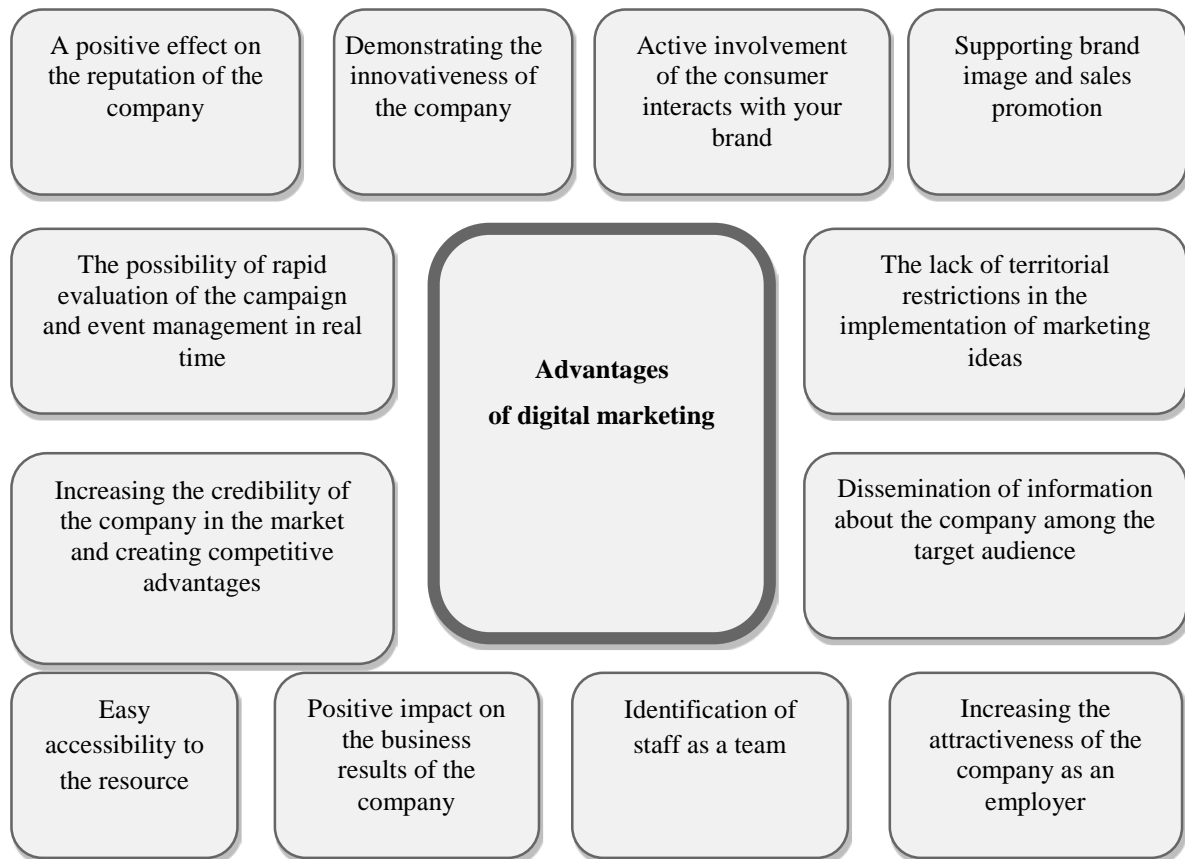


Figure 2 **Advantages of digital marketing** (developed by authors on basis (Koriniev, Kulishov, Odiyaylo, Oliynyk, & Sazonets, 2011)

So, the digitalization of the economy has opened new opportunities for the business. The use of digital marketing media is spreading massively and rapidly in the media space. It is expected that the cost of advertising in digital communications to double by 2020, according to estimates by eMarketer (Facebook Advertising, 2018).

This growth is largely due to the explosive reactions to the appearance of advertising in social networks, as consumers and brands have changed, which led to the creation of a completely new environment of super actual and ultra personified interactions. The dynamic promotion of products in Facebook is becoming the fastest growing source of income for all industries.

Familiarization with a review, comment or view on certain brands in social networks can directly impact the purchasing behaviour, so that you can now make a purchase directly on a social network. According to the forecasts of the advertising Agency Zenith Optimedia, global spending on advertising on social networks will represent 20% of total online advertising in 2019, reaching \$50 billion (Zenith Media, 2018).

According to estimates by research firm eMarketer, the net revenue of Facebook in the segment of digital advertising increased in 2017 by 35% to \$36.29 billion (Facebook Advertising, 2018).

The question arises: how must advertisers and marketers focus their investments on these new social channels?

So, according to Randall Beard, President of Nielsen Expanded Verticals, "...about a third of the campaigns on the Internet are useless - they do not promote brand recognition and do not lead to sales growth...", and "...today, content consumption and engagement with brands to a greater extent than ever rests in the hands of potential buyers. This means that without an understanding of the principles that resonate with advertising, you will never achieve increase in awareness and reinforce branding" (Global trust in advertising, 2015).

Nielsen carried out a global survey of trust in advertising among 30,000 online respondents in 60 countries to reflect the perception of the consumers regarding 19 sources of information and types of advertising. The results of the study shed light on the formats of communication that best resonated with consumers, as well as pointed to those who had yet to gain the attention of the audience. In addition, the consumers expressed their points of view on how these channels of communication stimulated their desire to buy (Consumer Confidence Index, 2016).

The value of digital advertising in today's environment and especially its ability to expand audience increase. However, the dynamic and rapid development of marketing opportunities in the digital space outstripped the willingness of companies to use digital tools to increase demand for their products.

The tricky part of digital marketing is the continued support of the evolution of the digital world. The very digital space is rapidly evolving, which complicates the use of digital marketing. Professionals need to constantly acquire new knowledge and competence for capricious, changeable digital content.

Therefore, with the development of the digital world, digital marketing must evolve along with it. As a consequence, the digital marketing world is extremely complex and will continue to become more sophisticated in the future. However, with each new addition to the digital world arise limitless marketing opportunities (Kramer, 2012).

A prominent place of trust among consumers is online channels of digital advertising. These tools allow you to build communication with a potential customer in a bilateral direction.

Therefore, in recent years companies were increasing spending on digital advertising (Measuring Digital Skills, 2014; Measuring the Information Society, 2017).

This might be caused by the improving tools for audience measurement and the fact that advertisers feel more confident in this relatively new market. TV is among those enjoying considerable popularity.

As can be seen from the presented diagrams (Fig. 3, 4), digital advertising represents significant consumer credibility and many advantages, including targeted campaigns, the possibility of optimizing on-the-go and great creative freedom. But a complete rejection of television advertising in favour of digital media is an advance. Consequently, the highest return today can provide the right balance between offline and online channels.

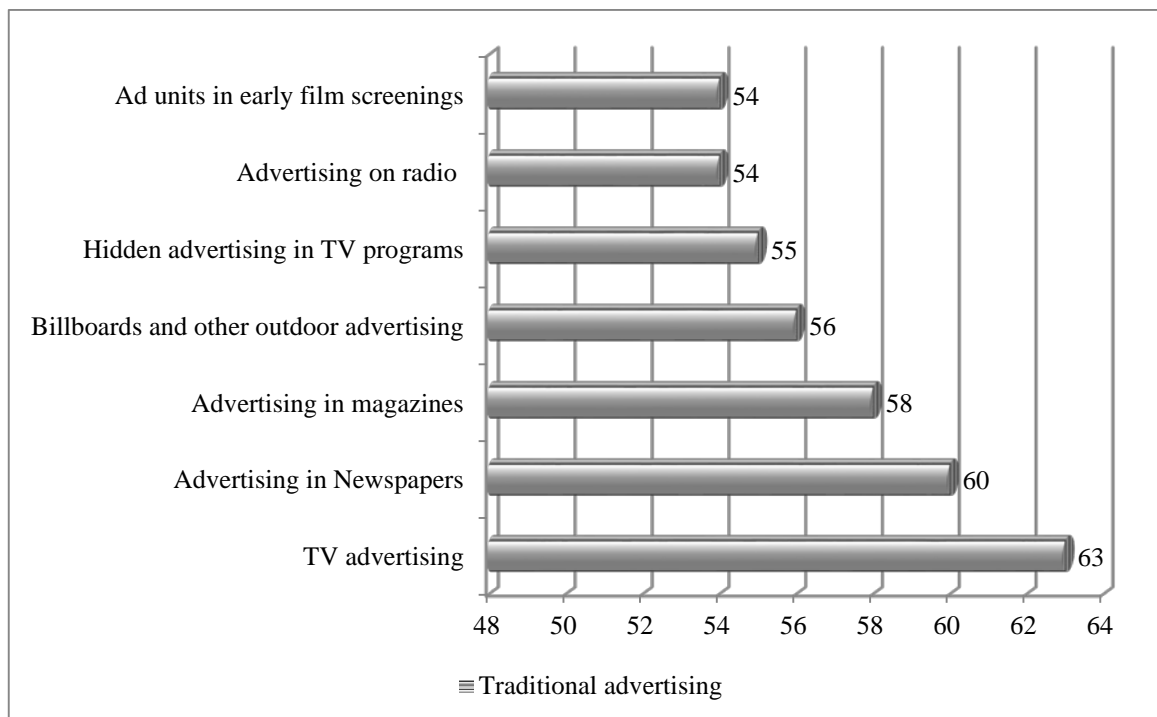


Figure 3 The level of confidence in the traditional advertising formats in the world (Consumer Confidence Index, 2016)

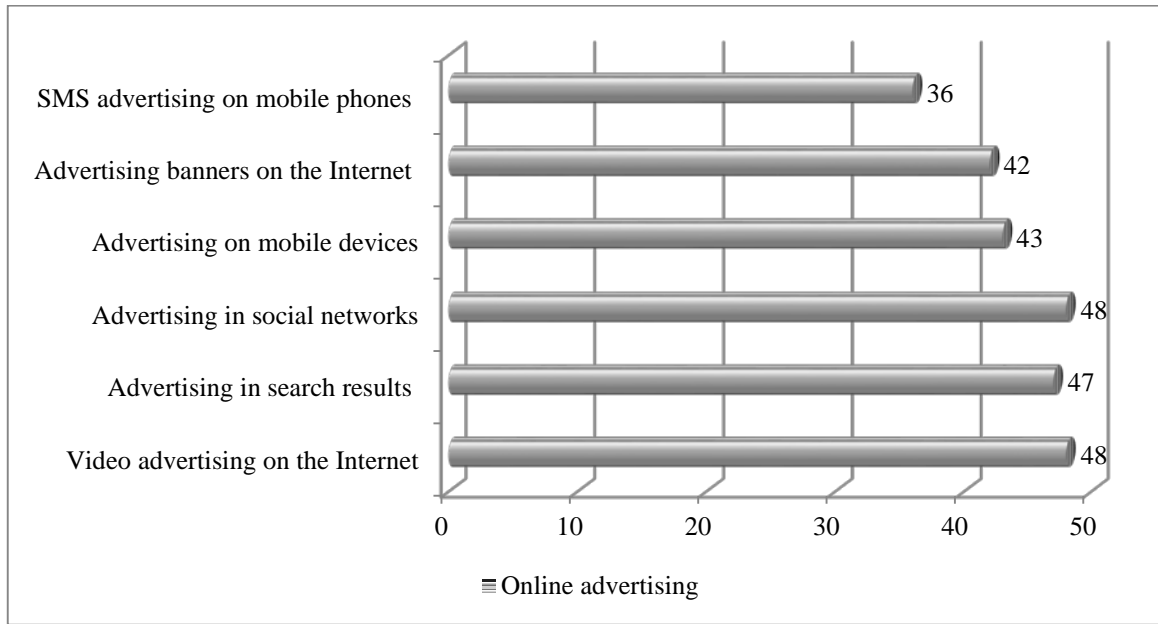


Figure 4 The level of confidence in digital advertising formats in the world (Consumer Confidence Index, 2016)

The results of the study raise the problem of choosing efficient online distribution channels for the marketing strategy.

In 2017, if we analyse the Ukrainian digital space, the priority of selection of a media space, is mainly located in the traditional space. The media activity of Ukrainians is different from that in the world by the predominance of traditional media channels (Fig. 5).

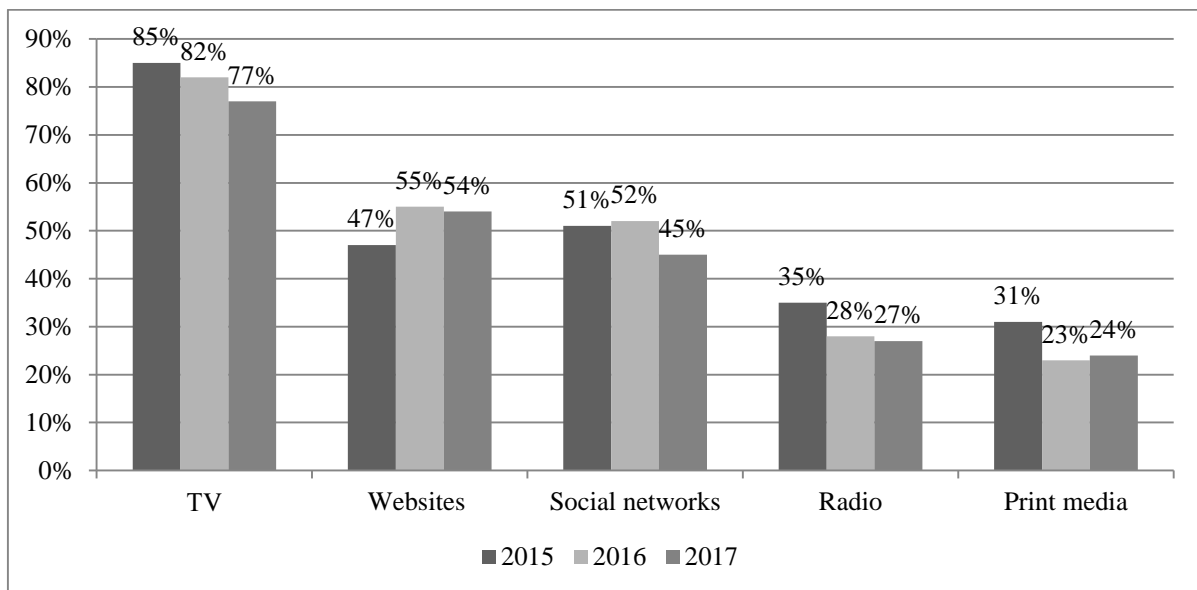


Figure 5 Media activity of consumers: Ukraine 2015 – 2017 (The attitude of the population towards the media and the consumption of various types of the mass media in Ukraine, 2017)

Trust in the Ukrainian media relates to both traditional and modern means (Fig. 6).

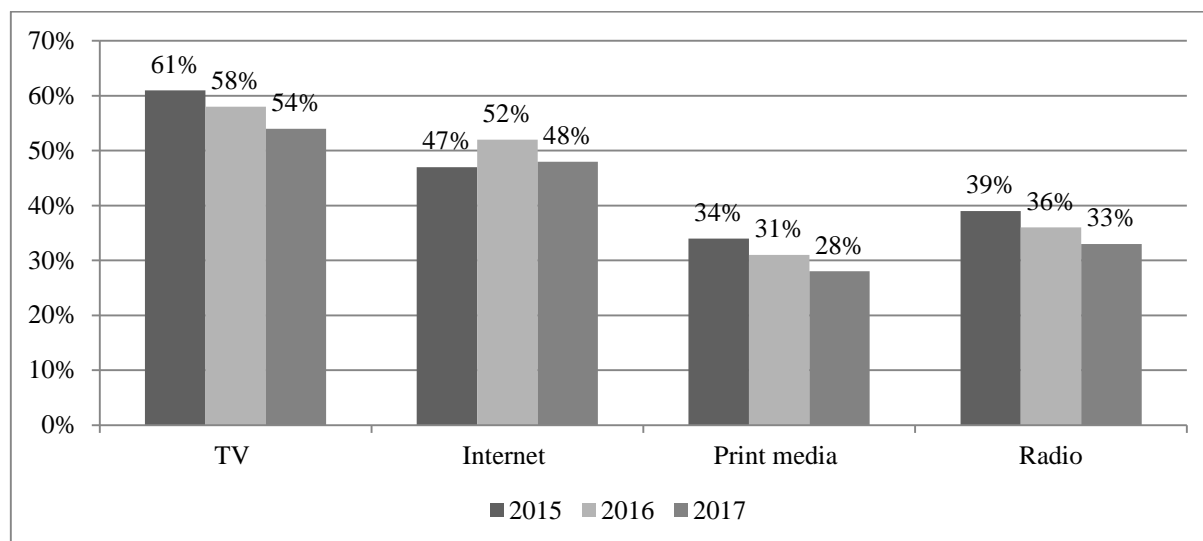


Figure 6 The credibility of the mass media: Ukraine 2015 – 2017 (The attitude of the population towards the media and the consumption of various types of mass media in Ukraine in 2017)

TV though remains the main source of news, however, continues to lose the audience (last year the share of those who used the TV was down 5% at 77%). Also there is a drop for the social networks, last year the use fell by 7%-points to 45 %.

This "gap" in the priorities of global and Ukrainian media distribution channels is due to the level of ICT usage in the state, which is due to the low percentage of Internet users in the country.

The level of ICT development in the country can be assessed according to the General utilization of computer technology and telecommunications. The parameters for the development of the information society are determined by a comparative analysis of the indices of the IDI (ICT Development Index) for Ukraine and Europe. In 2016 Ukraine ranked in 78th position in the IDI, and in 2017 it lost 1 position and ranked 79th (out of 176 countries) in the ranking of countries. Leading positions in this ranking belonged to Iceland, Korea, Switzerland, Denmark and the UK. Ukraine was behind Thailand (78th position), but ahead of China (80th position) (Measuring the Information Society 2017 report, 2017).

A comparative analysis of the number of Internet users and Facebook in the leading countries of Europe are given in Table 1.

Table 1 TOP 30 Internet Stats and Facebook usage in Europe*

Country	Population 2017	Internet users, 2017	Facebook	% Internet users	% Facebook	Rank, Internet users	Rank, Facebook
Austria	8592400	7273168	3600000	84.65	49.50	16	23
Belarus	9458535	6725018	840000	71.10	12.49	24	29
Belgium	11443830	10060745	6500000	87.91	64.61	10	11
Bulgaria	7045259	4213065	3300000	59.80	78.33	29	3
Croatia	4209815	3133485	1800000	74.43	57.44	21	18
Cyprus	1187575	901369	800000	75.90	88.75	19	2
Czech Republic	10555130	9323428	4600000	88.33	49.34	9	24
Denmark	5711837	5534770	3700000	96.90	66.85	2	9
Finland	5541274	5125678	2700000	92.50	52.68	6	20
France	64938716	56367330	33000000	86.80	58.54	12	14
Germany	80636124	72290285	31000000	89.65	42.88	7	27
Greece	10892931	7525926	5000000	69.09	66.44	26	10
Hungary	9787905	7874733	5300000	80.45	67.30	17	7
Italy	59797978	51836798	30000000	86.69	57.87	13	16
Latvia	1944565	1663739	720000	85.56	43.28	14	26
Netherlands	17032845	16143879	10000000	94.78	61.94	3	13
Norway	5330800	5311892	3400000	99.65	64.01	1	12
Poland	38563573	28267099	14000000	73.30	49.53	22	22
Portugal	10264797	7430762	5800000	72.39	78.05	23	4
Romania	19237513	12082186	8400000	62.81	69.52	28	6
Russia	143375006	109552842	12000000	76.41	10.95	18	30
Serbia	8776940	5885816	3400000	67.06	57.77	27	17
Slovakia	5432157	4629641	2400000	85.23	51.84	15	21
Slovenia	2071252	1563795	910000	75.50	58.19	20	15
Spain	46070146	40148353	23000000	87.15	57.29	11	19
Sweden	9920624	9216226	6200000	92.90	67.27	5	8
Switzerland	8454083	7558796	3700000	89.41	48.95	8	25
Turkey	80417526	56000000	56000000	69.64	100.00	25	1
Ukraine	44405055	23303773	5600000	52.48	24.03	30	28
United Kingdom	65511098	62091419	44000000	94.78	70.86	4	5
TOTAL EUROPE	822710362	659634487	343273740	80.18	52.04	*	*

* authors calculations based on Internet Usage in Europe, 2017

As can be seen from the analysis, Ukraine occupies the 30th place among the leading European countries by number of Internet users and 28th – the number of users of Facebook. Illustrative is the comparison with Latvia, where the percentage of Internet users is significantly higher than in Ukraine (14th position).

However, despite this, the percentage of Facebook users in Latvia has not reached a high level (26th position). Opposite results were obtained from the analysis of Internet Stats and Facebook Usage in Portugal. In this country, an average share of the population used the Internet (72.39%), while a high share used Facebook (4th position). This shows the need of taking account of the priorities of the digital media space, depending on the selected region of the distribution.

The groups of countries, according to the level of Internet users, represent the high, medium and low levels of use of the digital media space by the population of the countries (Table 2).

Table 2 *Groups of Internet usage in Europe**

Group	% Internet users	Rank, Internet users	Country
High 99.65 – 87.91% (11.74%)	99.65	1	Norway
	96.90	2	Denmark
	94.78	3	Netherlands
	94.78	4	United Kingdom
	92.90	5	Sweden
	92.50	6	Finland
	89.65	7	Germany
	89.41	8	Switzerland
	88.33	9	Czech Republic
	87.91	10	Belgium
Medium 87.15 – 75.50 % (11.65%)	87.15	11	Spain
	86.80	12	France
	86.69	13	Italy
	85.56	14	Latvia
	85.23	15	Slovakia
	84.65	16	Austria
	80.45	17	Hungary
	76.41	18	Russia
	75.90	19	Cyprus
75.50	20	Slovenia	
Low 74.43 – 52.48% (21.95%)	74.43	21	Croatia
	73.30	22	Poland
	72.39	23	Portugal
	71.10	24	Belarus
	69.64	25	Turkey
	69.09	26	Greece
	67.06	27	Serbia
	62.81	28	Romania
	59.80	29	Bulgaria
52.48	30	Ukraine	

* authors calculations based on Internet Usage in Europe, 2017

The obtained results indicate a significant gap in the level of Internet use between the groups of countries. The high level of use of the digital media space is specific to developed countries of the European Union. The gap between the first and second groups of countries is almost 12%. The second group of countries, according to the level of Internet users, includes the countries with developed economic systems (Spain, France, Latvia, Slovenia, etc.). Countries with unstable or emerging economies, such as Poland, Portugal, Belarus, Turkey, Greece, Serbia, Romania, Bulgaria, Ukraine, have low Internet usage (in the range in 87.15 - 52.48%).

So the modern digital marketing should take into account the digital divide between countries at the stage of strategy development. Because the optimal ratio of the use of online and offline marketing for different regions would be different in the "gap" level of ICT development in countries.

Considering the conducted researches, it is possible to outline the general stages in the development of the marketing strategy in the digital space to disseminate information in different regions:

I. Research – audience targeting:

- generation Z (15 to 20 years);
- generation Y (21 to 34 years);
- generation X (35 to 49);
- generation, Baby boomers (50 to 64 years);
- the silent generation (65 years old).

II. Components – the choice of components of strategies depending on the region:

- Content marketing;
- Viral marketing;
- Online ads (Facebook, Google AdWords);
- Blog, STA, press releases;
- PPC advertisement (pay per click);
- An online video;
- RAM Rossi;
- Mobile marketing;
- Social MEDA (Facebook, twitter, LinkedIn, Instagram, Google plus, Pinterest).

III. Marketing actions – the choice of the package of measures “marketing mix“, which determine the positioning of the product in the market:

- Product;
- Price;
- Promotion;
- Place.

IV. Evaluation of the effectiveness of the implementation of the marketing strategy in the digital space.

V. Agenda for future research (*A Digital Agenda for Europe, 2010*).

Conclusions and Suggestions

Nowadays more than a third of the entire planet has received the Internet access. Judging by the fact that people spend so much time in the digital world, marketers must work in this world so effectively as in traditional media.

As new digital devices and technologies evolve, future research needs to focus on how firms can use these developments to create a sustainable competitive advantage, gain market share and increase customer equity and brand equity.

Formation of the strategy of promoting the company and product through digital channels is the main objective of digital marketing that involves the active presence of the company on social networks, media, using the viral video for attracting the attention of millions of people and achieving the maximum result in the optimal way, that is, saving money, avoiding unnecessary inefficiencies.

Summary

Digital marketing as the use of all possible forms of digital channels to promote the product, and the Internet, TV, radio, social media are all tools of digital marketing.

Digitalization of the economy and the "gap" of marketing priorities. TOP 15 Global Marketing Priorities 2017. Advantages of digital marketing. The level of confidence in the traditional advertising formats in the world. The level of confidence in digital advertising formats in the world. Media activity of consumers in Ukraine. The credibility of the mass media in Ukraine. A comparative analysis of the number of Internet users and Facebook in the leading countries of Europe. The groups of countries, according to the level of Internet users. The general stages in the development of the marketing strategy in the digital space to disseminate information in different regions:

I. Research – audience targeting.

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IV. Evaluation of the effectiveness of the implementation of the marketing strategy in the digital space.

V. Agenda for future research.

Formation of the strategy of promoting the company and product through digital channels.

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ACCOUNTING AND ECONOMIC ANALYSIS IN CONDITIONS OF DIGITALIZATION AND GLOBALIZATION OF PUBLIC RELATIONS

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Abstract. *The aim of the research is to identify the directions of accounting and economic analysis in the context of globalization and electronic data processing. The role of accounting and economic analysis in managing sustainable development of the national economy and economic entities is determined. The theoretical and methodological design of improved systems of accounting and economic analysis of enterprises' economic activity including expanded and updated functions, tasks and principles in accordance with current conditions of digitalization and globalization of public relations is presented. It allows creating appropriate organizational and methodological provision of accounting and analytical support of managing enterprises' activity to increase reliability and relevance of accounting information. The authors prove that improved components of the accounting and economic analysis system of enterprises' economic activity in the conditions of digitalization and globalization of economic relations will enhance application of accounting techniques, procedures, methodological support, management and internal control.*

Keywords: *accounting, digitalization, economic analysis, globalization, information.*

Introduction

Globalization and multi-vector integration of world countries, dynamic changes of the competitive environment, digitalization of economic relations and active investment into innovations are all the factors that accelerate economic development and have a direct impact on the national economy. Yet, in spite of the need to react to new challenges facing information society, the potential of sustainable development has failed to be realized. Making efficient managerial solutions at the age of economic globalization and digitalization is possible only through obtaining timely, complete, authentic and objective

information on enterprises' economy that can be provided by the system of accounting and economic analysis.

Economic globalization, business expansion of international companies, creation and functioning of joint enterprises and realization of international projects have caused the need to internationalize, unify, harmonize and standardize accounting in order to enhance data quality and reliance. Efficient methods and tools of financial management can be acquired by obtaining analytical and settled data necessary for managers of various levels to achieve their goals. Financial and economic information is extremely heterogeneous in character. Interrelations of some information types are complicated and tend to be even more complicated. By reflecting all essential changes in the structure of economic means, sources of their creation and results of financial and economic activity, accounting and economic analysis can provide the information necessary for users to make well-grounded decisions.

The aim of the research is to identify the directions of accounting and economic analysis in the context of globalization and electronic data processing.

Achievement of the set goal involves solving the following tasks:

- to substantiate the place and role of accounting and economic analysis under the economic globalization and digitalization;
- to formulate the postulates of the development theoretical and methodological provisions of the accounting systems in the direction of compiling integrated reporting;
- to substantiate the importance of developing a concept for the development of accounting and analysis in context of economic globalization and digitalization;
- to determine the prospects for the development of accounting and analysis of technology using computerized information systems in the context of the requirements of the digital economy as an instrument of globalization.

To achieve this aim the following methodology was used: scientific inductive and deductive methods, the monographic and the data based method.

The research is based on the dialectical method which enables determining the place of accounting and economic analysis of enterprises' economic activity under conditions of globalization and digitalization. Simulation is applied to depicting synergetic interaction of subsystems of accounting and economic analysis, planning and control in the enterprise management system.

Interconnection of accounting, economic analysis, planning and control data in the enterprise management system

The research by Darrough and Deng (Darrough & Deng, 2018) defines the role of accounting data in establishing optimal interrelations between business-partners. Suprunova (Suprunova, 2018) substantiates the influence of transformation processes, in particular globalization and digitalization of economy, on the accounting system.

John A. Pendley (Pendley, 2018) considers financiers' and accountants' role in ensuring economic entities' cyber security.

The research by Hall and O'Dwyer (2017) defines the role of accounting in managing non-profitable organizations.

The research by Hopper, Lassou, and Soobaroyen (Hopper, Lassou, & Soobaroyen, 2017) reveals prospects of accounting in the age of globalization of the country's development.

Bebbington, Russell and Thomson (Bebbington, Russell, & Thomson, 2017) investigate the place of the accounting system in sustainable development of economy.

The research paper by Shields (2018) determines the prospects of investigating accounting development.

Professor Butinets (Butinets, 2018) proves that accounting is an important part of forming the basis of the market economy, the language of business and entrepreneurship, an effective tool of managing economic processes. The reason for that is its potential to facilitate management, planning, monitoring and analysis through providing accounting information which is both retrospective and perspective in character.

Professor Yevdokimov (Yevdokimov, 2011) believes that in the age of economic globalization and arising information society, the theory and practice of accounting undergo transformation and IT development cause new insights into this field.

Hendriksen and Van Breda consider provision of information one of the main objectives of accounting in current conditions of the market economy. It enables investors to form their investment portfolio in order to balance risks and profits under the set security price. On the contrary, information can be necessary to establish the security price which would reflect risk and profit ratio and enable investors to form portfolios according to their own preferences to reach the maximum profitability under the set risk rate (Hendriksen & Van Breda, 1997).

Lehenchuk proves that the current accounting system under developing post-industrial economic conditions (Lehenchuk, 2011) does not provide users with necessary information to make efficient managerial decisions. It is

suggested by the criticism expressed both by internal and external users of accounting information and representatives of the accounting scientific community. This situation suggests the necessity to reconsider some theoretical and methodological principles of accounting in order to meet accounting information users' needs through considering current economic changes.

Accounting and financial reporting are of primary importance in the system of information support of economic entities, their indices characterizing enterprises' financial and economic activity. Interested users can apply accounting and financial reporting information to performing economic analysis, planning, developing financial strategies and tactics for basic directions of economic activity. The data on accounting and economic analysis is the only thing that helps find reserves, their better application in the form of investments improve production (services) and manufacture marketable products/services. In other words, accounting and financial reporting mediate between an enterprise and the external environment, the information revealing the processes occurring at an enterprise. On the other hand, they provide information of the volume required by external and internal users.

Accounting information is essential for either confirming or correcting assumptions as a decision is rarely made in isolation. The data on the result of one decision are used to make another decision, this process being a feedback. Ideally, accounting and financial reporting provide enterprises with the service like this (a feedback), enabling them to control their tactics and strategy.

It should be noted that information cannot be considered relevant if it is not timely, i.e. it should be applicable to making decisions before it loses its ability to affect this process. Timeliness of information does not guarantee its relevance, yet the latter is not conceivable without the former. Accumulation, summing up and further publication of reporting information should be done as soon as possible to ensure availability of current information for users.

It is estimated that benefits of information increase if it is presented in the form enabling comparison of an economic phenomenon with a similar one occurring at another point of time. Proceeding from this, comparability is a property of information which enables users to find similarity and difference between two sets of economic phenomena. In its turn, comparability of information depends on its heterogeneity (uniformity) and consistency (stability, conformity). To perform this, the accounting-analytical system should distinguish four pointcuts of information on enterprises' economic activity - accounting, analytical, forecasting and management information. Each of the mentioned information blocks is affected by a certain group of factors, requires solution of some methodological and organizational tasks and is characterized by a potential to enhance the management and quality level (Figure 1).

Resources, funds, their sources and account settlement, basic means, other noncurrent tangible assets, intangible assets, inventories and financial results are all subject to accounting and analytical monitoring, forecasting and control. It facilitates ordering and meaningful cooperation of separate elements of the enterprise's accounting and economic analysis system.

It is suggested that the system-based approach should determine the ways of improving some essential aspects of accounting, analysis, forecasting and control of enterprises' economic activity. This approach implies:

- synchronization of operating accounting, analytical, forecasting and managerial elements of accounting;
- arrangement of high-quality diagnostics of observing commitments by obtaining easy access to necessary accounting and analytical information of the required adequacy rate;
- dynamic responses to critical deviations in conditions and consequences of economic activity;
- prevention of unpredictable failures and errors in performing operations and their documentation.

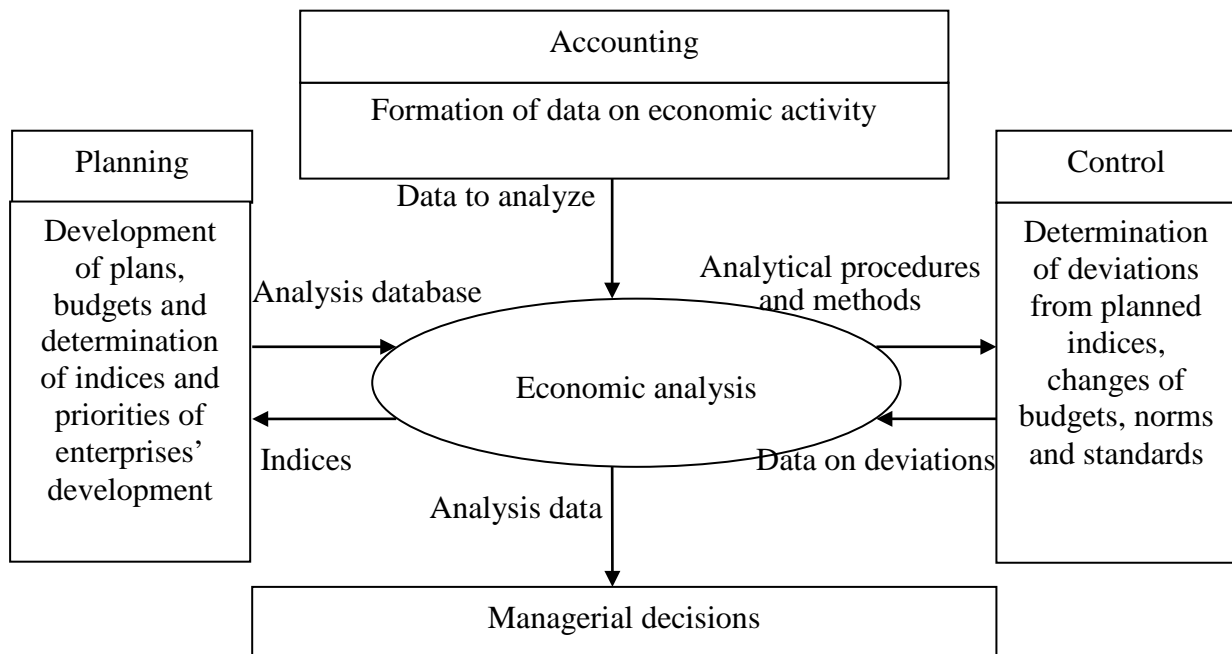


Figure 1 Accounting, economic analysis, planning and control in terms of enterprises' management subsystems (compiled by the authors)

Accounting and analytical information should provide an opportunity to assess whether an enterprise used funds in sufficient quantity in the previous period, how justified the chosen investments are and how previously performed operations affected the enterprise's profitability. Obtained results of accounting

data analysis form the basis for making efficient long-term managerial decisions. On this assumption, tasks of accounting and economic analysis are formed on the basis of integrated management objects: enterprise's development, efficient use of resources, introduction of innovations, product manufacturing, economic consequences of investments into innovations. According to each group of objects, there is a need in analytical provision of other management systems, including planning (application of economic analysis results to compiling budgets) and internal management (application of analytical procedures during inspections and using analysis of previous periods to plan inspections).

The role and place of accounting in the age of digitalization and economic globalization

Izmaylov, Yegorova, Maksymova and Znotina proves that emerging information society provides for conformity of economic growth to quality parameters of social and economic development as further progress is determined not by production, but by more extensive use of information. Digital economy is composed of the following three elements - development and maintenance of infrastructure, electronic business and electronic commerce (Izmaylov, Yegorova, Maksymova, & Znotina, 2018). For every element of electronic economy to function effectively and evolve, there should be a clear accounting and analytical system for providing high-quality, authentic and complete information on making managerial decisions.

Professor Svirko (Svirko, 2014) thinks that the role of accounting should be considered in terms of the following three levels of economy:

- 1) the mega-level as an element of the international complex of informational interaction of enterprises and a tool of economic integration;
- 2) the macrolevel as a component of the national accounting system and a tool of informational provision of controlling the country's national income;
- 3) the microlevel as an element of financial management of business entities, a means of protecting the rights of personnel, consumers, legal entities and individual taxpayers.

Modern conditions of globalization and digitalization of business relations lead to expanded application of accounting data from the microlevel and the macrolevel to the mega-level through intensification of its manifestation on these levels of business relations (Figure 2).

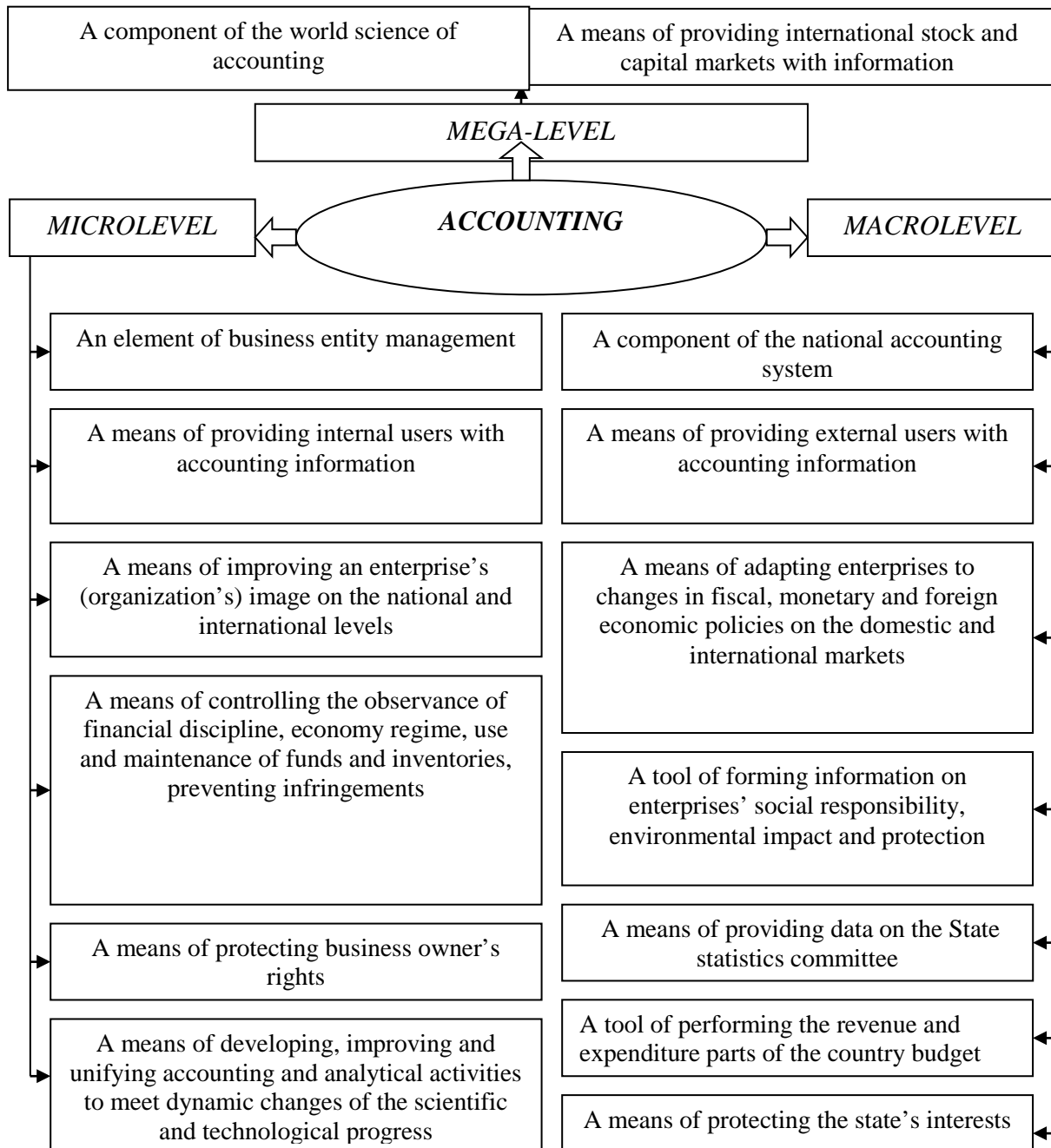


Figure 2 Accounting on the mega-, macro- and microlevels in the age of economic globalization and digitalization (compiled by the authors)

Standardization means determination and application of rules to manage a filed-specific activity by regulating some conditions, standards, qualitative characteristics and other standardization objects called standards (Academic Explanatory Dictionary, 2018).

According to its scale, standardization is characterized by the following levels: 1) the mega-level implying standardization on the international level and

participation of corresponding bodies of all countries; 2) the regional level implying standardization on the corresponding regional level and participation of corresponding bodies of the countries of a certain geographical or economic space; 3) the macrolevel implying national standardization on the level of a single country; 4) the microlevel implying standardization on the level of a separate business entity.

Standardization of accounting on the international level is determined by globalization and data users' need in making similar managerial decisions as to asset purchasing and selling, evaluating management quality, employers' ability to pay for employees' labour, diagnostics of business entities' credit worthiness and solvency, improvement of their tax policies and regulation of other issues of their economic and financial activity.

Standardization of accounting is performed by several international organizations including the International Accounting Standards Committee which designs international accounting standards; the International Federation of Accountants which develops ethical, educational and auditing aspects of accounting; the United Nations Organization which facilitates introduction of international standards in the world countries and mainly deals with studying the issues of accounting and reporting of international corporations and developing corresponding recommendations to harmonize them. At the same time, international standards do not control accounting methods and techniques. Therefore, they are different in different countries. Only the basic principles affecting formation and reflection of enterprises' activity results and financial state are subject to control.

Transition of business entities' accounting and reporting systems to international standards is to make economic relations with foreign companies simpler. Foreign business-partners will be able to obtain clear, complete and authentic information on Ukrainian enterprises' financial state. The new accounting and reporting system by international standards facilitates procedures of determination of financial and economic activity results, evaluation of investment or reinvestment expediency for foreign business entities, financial institutions, investors, counteragents and other users of accounting and reporting information.

Benefits of creating the accounting system according to international accounting and reporting standards include automation of everyday business processes, crediting opportunities, efficient management decision-making, establishment of long-term contacts with foreign business-partners, and simplification of consolidated reporting forms.

The role and place of economic analysis in the age of economic globalization and digitalization

Economic analysis is an integral part of enterprises' economic activity. As its final stage before making managerial decisions, it covers all the elements of this activity. Economic analysis enables providing correct assessment of an enterprise's and its departments' activity, detecting reasons for failures and available reserves, facilitates the general level of economic activity by making it a serious incentive of the scientific and technological progress and improving production efficiency. The place of economic analysis in making managerial decisions is given in Figure 3.

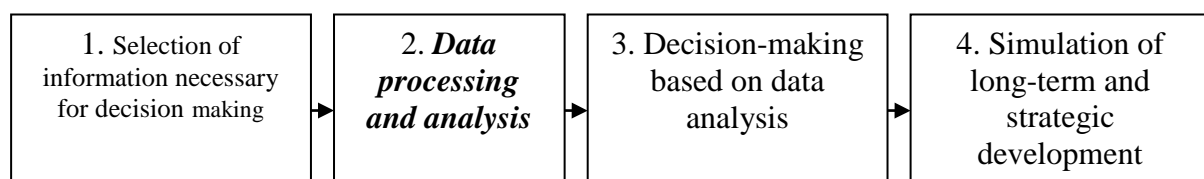


Figure 3 *The place of economic analysis in making managerial decisions in the age of economic globalization and digitalization* (compiled by the authors)

A perfect economic analysis of an enterprise's economic activity enhances generalization of accounting and reporting information, its dynamic changes, structure and financial consequences. The results of economic analysis enable diagnostics and control of trends of improving qualitative and quantitative indices of enterprises' economic activity. Functions and tasks of economic analysis always depend on the country's social and economic order and the economic development level, in particular the conditions of an enterprise's operation. The functions and tasks can also vary depending on the economic analysis level. On the macrolevel (economy of countries, regions, fields) economic analysis is in close relation to statistics and acquires a form of economic and statistic analysis. On the microlevel (the first level economy of the economic system), it is realized as economic analysis of an enterprise's activity.

Conclusions

It is estimated that accounting and analysis of enterprises' economic activity in the age of economic globalization and digitalization is aimed at forming transparent accounting and analytical data to ensure users' trust and providing an opportunity to control reporting indices formation. In particular, it implies creating complete, timely, authentic and structured retrospective and perspective information on strategic and current aspects of an enterprise's

activity and its environment considering users' requirements on the basis of long- and short-term financial and non-financial indices.

The most important tasks of developing accounting and economic analysis in the age of digitalization and globalization of public relations is transition from the concept of financial reporting to the concept of corporate reporting which is to provide users with information on rational use of land, water and other country's resources; efficiency of using noncurrent assets, their updating and improvement to ensure further development; application of innovative energy- and resource-saving technologies; efficient application of labour resources including intellectual capital; provision of formation and efficient use of capital, borrowed and debt financial resources; creation, application and production of innovations; introduction of results of the investment-innovative development aimed at environmentally sound and intensified production and expanded range of innovative products and services; enhancement of the state's military, political and economic security, etc. Development of economic analysis aimed at improving analytical calculations will allow managers to actively affect investments into updating of real assets, mobilizing current reserves to increase feedbacks from the invested capital.

Further research should be focused on developing theoretical and methodological principles ensuring obtainment of data from integrated accounting and analysis systems. The data obtained will characterize production, distribution and consumption of social products and the national income within the scale of a single economic entity.

Summary

Making efficient managerial solutions at the age of economic globalization and digitalization is possible only through obtaining timely, complete, authentic and objective information on enterprises' economy that can be provided by the system of accounting and economic analysis.

The research is intended to define the place and role of accounting and economic analysis subsystems in the business management system under conditions of globalization and digitalization of economic relations.

The role of accounting and economic analysis in managing sustainable development of the national economy and economic entities is determined.

It is estimated that accounting and analysis of enterprises' economic activity in the age of economic globalization and digitalization is aimed at forming transparent accounting and analytical data to ensure users' trust and providing an opportunity to control reporting indices formation. In particular, it implies creating complete, timely, authentic and structured retrospective and perspective information on strategic and current aspects of an enterprise's activity and its environment considering users' requirements on the basis of long- and short-term financial and non-financial indices.

The theoretical and methodological design of improved systems of accounting and economic analysis of enterprises' economic activity including expanded and updated functions, tasks and principles in accordance with current conditions of digitalization and globalization of public relations is presented. It allows creating appropriate organizational and methodological provision of accounting and analytical support of managing enterprises' activity to increase reliability and relevance of accounting information.

The most important tasks of developing accounting and economic analysis in the age of digitalization and globalization of public relations is transition from the concept of financial reporting to the concept of corporate reporting which is to provide users with information on rational use of land, water and other country's resources; efficiency of using noncurrent assets, their updating and improvement to ensure further development; application of innovative energy- and resource-saving technologies; efficient application of labour resources including intellectual capital; provision of formation and efficient use of capital, borrowed and debt financial resources; creation, application and production of innovations; introduction of results of the investment-innovative development aimed at environmentally sound and intensified production and expanded range of innovative products and services; enhancement of the state's military, political and economic security, etc. Development of economic analysis aimed at improving analytical calculations will allow managers to actively affect investments into updating of real assets, mobilizing current reserves to increase feedbacks from the invested capital.

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MANAGEMENT OF PSYCHOSOCIAL RISKS IN THE EDUCATIONAL SECTOR OF LATVIA

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Abstract. Risk management is gaining acknowledgement in organisational management due to the benefits it brings with it, such as ability of managers to forecast possible threats and plan the most appropriate prevention measures. Psychosocial risk group is one of the largest risk group types and is related to the aspects of staff overburning, lack of employee motivation, health problems due to stress, etc. Study carried in Latvia about risk management showed that psychosocial risks are significant for educational institutions. Empirical research carried out in Latvia has shown that the top risks perceived by the education sector professionals in Latvia are overloading of employees and lack of employee motivation. Hypothesis of this study is that psychosocial risks, such as overloading and lack of motivation, are not dealt well with due to low awareness of effective psychosocial risk management techniques. There was no profound research performed on this topic in Latvia in the last ten years. The aim of this study is to explore different methods researched by other authors how the risk can be managed, analyse causes of these risks and provide the recommendation on how to deal with the psychosocial risks in the educational sector.

Keywords: risk management, psychosocial risks, motivation, overloading of employees, management of education, Latvia

Introduction

Rapid developments in the job market caused by globalisation and technological revolution resulted in changed risk factors in the work environment. For example, nowadays teachers in addition to classroom work have to be able to provide all resources digitally via special dedicated online study platform, have to be able to operate well with technology and constantly update their knowledge about latest tools (Souto, Pereira, Brito, Sancho, & Jardim, 2018). Inability to meet job requirements or control circumstances at the workplace may cause work-related stress that takes the form of emotional and physical reactions (Kaļķis, 2008, 191; Fernet, Trépanier, Austin, & Levesque-Côté, 2016; Souto et al., 2018). As a consequence of psychosocial risk realisation, employees are taking long periods of sick leave, underperform at work or constantly arrive late, burn out, in

addition there are possible work related incidents, damage of employer's image and reputation, often it is employer's responsibility to pay out compensations (Kaļķis, 2008, 192; Souto et al., 2018; Guadix, Carrillo-Castrillo, Onieva, & Lucena, 2015).

Psychosocial risks at work bring the highest threats for educational institutions, due to high probability and severe impact. In Latvia the problem is further amplified by employee's inability to recognise these problems or lack of courage to openly discuss it with the direct manager in order to find mutually beneficial solution. This further leads to distress and its related problems, such as alcoholism, neurosis, oncology, psychosomatic disorders, theft, etc. (Kaļķis, 2008, 191-192).

Upon performing profound desktop study about risk management in the sector of education, the most notable risks were formulated and based on it the questionnaire was developed for educational sector stakeholders in Latvia, where respondents were asked to rate criticality of the formulated risks and level of controls for these risks according to provided methodology. Questionnaire was placed into online platform SurveyMonkey.com and distributed via social networks and e-mails. Returned fully completed results were examined for this research. It is important to analyse whether there is any correlation between the criticality of risk and its control risk level, as perceived by educational sector stakeholders, in order to draw the conclusion what is the most appropriate way for management of particular risk. The aim of this research was to explore different methods how the risk can be managed presented by different researchers, analyse causes of psychosocial risks and provide the recommendation on the most effective means for dealing with the psychosocial risks in the educational sector.

Literature review

Psychosocial risk factors as identified by multiple researchers are frequent overtime, not involving employees in management decision-making, not ensuring sufficient information exchange for employees, unfavourable working conditions and organisational design of work (Kaļķis, 2008, 192; Souto et al., 2018).

Work related stress can be caused by increasing job demands, employee's inability to cope with those, as well as employee may be lacking required skillset or motivation to perform at work according to set expectations. In addition to that, psychoemotional type of work related stress can be caused if workplace does not meet employee's needs or there are unsatisfying relationships with colleagues and/or manager. For example, employee may be subject to psychological terror at work, bossing or mobbing, which are types of bullying at work, caused by employee's manager or colleagues respectively (Kaļķis, 2008, 191).

Work stress usually is caused by overtime work and can take two forms – physical (headaches, breathing problems, voice disorder, dry mouth, muscle tension, cardiovascular disorders) or psychological (aggression, concentration difficulties, fear, apathy, depression, increased number of incidents) (Kaļķis, 2008, 192; Souto et al., 2018).

According to Self-Determination Theory (Fernet et al., 2016), employees engage in activities for a certain motive, which further affect their psychological state of well-being. Within the scope of Self-Determination Theory, employee motivation takes two forms of motivation: autonomous, when employees perform their job with pleasure out of intrinsic willingness connected to internal values and own feeling of importance of the performed job duties, and controlled, when duties are performed under external or internal pressure, such as for reward or to avoid certain unpleasant consequences (Fernet et al., 2016). Autonomous motivation is positively correlated with psychological health, job satisfaction, high commitment to work; in the contrast, controlled motivation is associated with emotional exhaustion, work-related stress, burnout and workaholism (Fernet et al., 2016). Self-determination theory states that work environment plays the key role in determining the employee motivation. Looking from the perspective of Job Demand-Resource Model (Hakanen, Bakker, & Schaufeli, 2005), job demands, which are aspects of the job obstructing completion of tasks and resulting in employee's personal costs, such as disrupting behaviour of students, mainly cause controlled motivation, whereas job resources, which are aspects of the job boosting employee's ability to complete tasks and develop professionally, such as job recognition, cause autonomous motivation (Fernet et al., 2016).

Teachers are particularly vulnerable to emotional exhaustion, which frequently leads to overburning, anxiety, chronic fatigue and sense of helplessness and reduction of autonomous motivation. According to the study of Fernet et al. (2016), teacher burnout was positively correlated with job demands, such as high workload and misbehaviour of students, and negatively with job resources, such as supervisory support. Commitment of teachers shows their degree of autonomous motivation that takes form of emotional attachment, association and involvement with their profession. In addition to that, it was established that level of teacher satisfaction with their occupation and relative psychological investment in the job led to higher attentiveness of students and student achievements (Fernet et al., 2016). Controlled motivation, on the other hand, through obstructing basic psychological needs, leads to psychosomatic problems and work-related stress, reducing the commitment and performance of teachers (Fernet et al., 2016).

Dombrovskis, Guseva, & Murasovs (2011) distinguish intrinsic and extrinsic motives, where intrinsic are equivalent to autonomous motivation causes and extrinsic motives are corresponding with controlled motivation causes. Empirical study performed by Dombrovskis et al. (2011) revealed that in Latvia secondary

school teachers are predominantly motivated by extrinsic motives, with economic motives taking the first place out of seven on the provided motives scale, indicating job dissatisfaction among secondary school teachers (Dombrovskis et al., 2011). Furthermore, significant positive correlation was found between economic motives of teachers in Latvia and level of their emotional exhaustion. This hinders the intrinsic motivation of teachers, leads to more formal relationships at work, professional de-valuation, inability to value professionalism of colleagues and instead perceiving colleagues more as competitors. Teachers perceive their profession to have low social status, what leads to further loss of intrinsic motivation, reduced performance and increased work-related stress levels (Dombrovskis et al., 2011).

Another risk, which is caused by psychosocial risk factors, to which teachers are particularly exposed, is voice disorders, especially in large classes with higher amount of students. With length of service this problem becomes more actual, thus elder more experienced teachers are more disposed to vocal tissue injuries (Trinite, 2016). Voice disorder is occupational risk especially related to teacher profession. The risk factors leading to it are inadequate job resources, such as poor classroom acoustics, overfilled classes, air quality, stressful situations requiring loud speaking, overtime work requiring voice overload, as well as emotional well-being of teachers at work (Trinite, 2016). The most exposed to this risk are music and sports teachers, according to the study performed by Trinite (2016). In addition, it was found that background noise level in the classroom is directly related to the teacher's stress level, leading to two-way explanation, that increased background noise raises stress level in teacher and increased stress level in teacher transfers to students and in return increase the noise levels. Thus, workload and level of stress have impact also on teacher's vocal health (Trinite, 2016).

Methodology

Comprehensive questionnaire was developed based on prior desktop research about risk management in educational sector, where respondents were asked to rate 32 risks most relevant for educational sector on a scale 1 to 5 on two criteria: criticality of risk and level of risk control. Table 1 provides detailed scale characteristics:

Table 1 Risk rating scale methodology in research questionnaire (developed by author)

Criticality of risk		Effectiveness of management	
1	Risk is not at all significant	1	Risk is not managed at all
2	Risk is neutral	2	Risk is very poorly managed
3	Risk is slightly significant	3	Risk is managed, but very weakly
4	Risk is very significant	4	Risk is well managed
5	Risk is critically significant	5	Risk is managed to the highest standard

Questionnaire was placed into online platform SurveyMonkey.com generating online link and allowing participants to stay anonymous. Link to the survey was distributed via social networks and e-mail to the Association of Education Leaders in Latvia. In addition, 10 printed questionnaires were completed by students of Pedagogy and Psychology Faculty at the premises of the University of Latvia.

A total of 95 stakeholders, having direct relation to educational sector from different parts of Latvia, majority of whom were managers and leaders of educational institutions, fully completed and returned the questionnaire. Detailed sample characteristics can be seen in Table 2.

Upon collection of results, risks were grouped according to their type, e.g. psychosocial risks, economic risks, political risks, etc. In this paper only results for the psychosocial risk type are presented.

Ratings allocated by respondents for each risk on two dimensions were assumed as individual risk scores for each dimension and average score from all responses was taken as final risk score for each risk.

Data was analysed mainly by use of MS Excel to perform comparative evaluation of risk criticality and management and whether there are any relationship trends between the two dimensions.

Table 2 *Participant characteristics (developed by author)*

	Characteristics	Number (n)
Gender	a. Male	a. 10
	b. Female	b. 85
Role in educational sector	a. Manager of education institution	a. 44
	b. Teacher	b. 25
	c. Nanny	c. 1
	d. Parent	d. 5
	e. Employee of educational institution	e. 16
	f. Other (e.g. children's sport coach)	f. 4
Type of educational institution	a. Pre-school, Nursery	a. 18
	b. Primary or Secondary School	b. 44
	c. College, gymnasium, high school	c. 21
	d. Professional / vacation education institution	d. 6
	e. University	e. 4
	f. Other (e.g. extracurricular activity provider)	f. 2

Research results

The results revealed that psychosocial risks are considered as significant, but not critical by the respondent sample. Notably, that level of controls for majority of risks was rated opposite in proportion to risk criticality: the more significant is

the risk, the weaker are the controls, and vice versa. Several psychosocial risks received the highest scores among all other risk types, for example risk of employee overloading rated as second highest among the all 32 risks evaluated.

Average score of “Overloading of employees” risk is 3.8, what means that majority of respondents marked the risk as very significant. Overloading of employees usually results in exhaustion, overburning, problems with health and decrease in autonomous motivation. Average score of risk control is 2.6, what means that educational institutions manage this risk quite poorly.

“Lack of employee motivation” risk was rated 3.3 (significant), confirms the above and most probably is the consequence of work overload risk. Dombrovskis et al. (2011) revealed in their research that teachers in Latvia are lacking autonomous motivation, what has been further confirmed by this research results. The level of control for this risk was rated at 2.9, what means that the management of this risk also is quite weak.

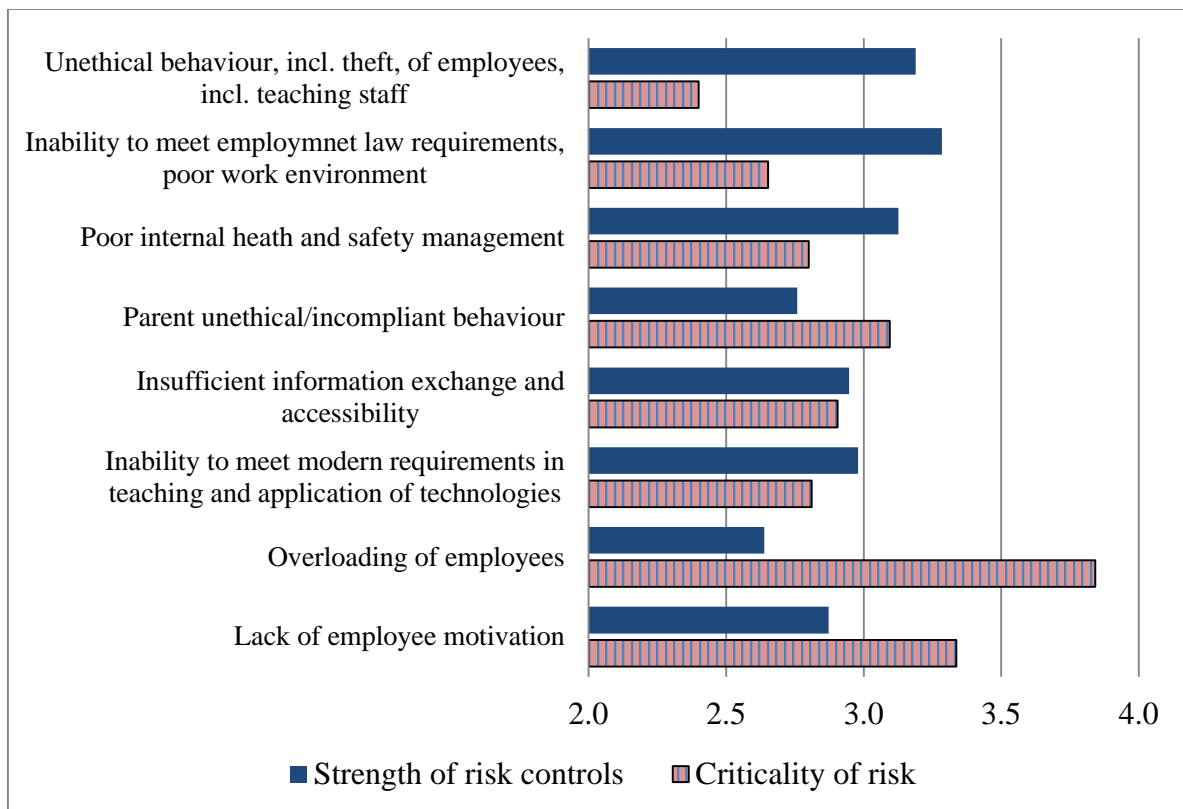


Figure 1 Comparison of criticality of risk and risk control scores (developed by author)

The least significant (2.4) and most controlled (3.2) risk, according to view of the respondents is “Unethical behaviour of employees”. This can be interpreted as that social climate at work is not at its worst in Latvian educational institutions and employees feel quite emotionally safe at work. On the other hand, risk of

“Parent unethical/incompliant behaviour” is rated on average as 3.1 (risk is slightly significant), what means that employees feel more threatened by behaviour of parents rather than by behaviour of colleagues. Risk of unethical behaviour of parents also is poorly controlled (2.8), whereas risk of employee unethical behaviour is controlled more effectively (3.2). This can be explained by fact that behaviour of employees is internal risk, which is easier to control, whereas behaviour of parents is external risk, which is more difficult to control. Internal health and safety risk was rated as having slightly significant criticality (3.1) and weak control (2.8), what means that there is space for developments in this area for educational institutions. Health and safety aspects are the job resources that provide to employees feeling of safety and being cared about. This risk includes the quality of air in the classrooms that affect teachers’ vocal health. This risk should have strong controls by way of implementing required by law policies and checks.

Level of risk management and controls for meeting internal law requirements in relation to work environment was rated as the highest among psychosocial type of risk controls. Although the controls are still considered to be weak (3.3), the criticality of risk is quite low (2.7).

Accessibility and exchange of information received the same score for criticality of risk and level of risk control (2.9 – risk is slightly significant, risk is managed, but very weakly). It can be interpreted that the risk is not having a high priority and therefore it is not expected to invest a lot of energy in its management.

However, information provision and exchange increases organisational transparency and serves as job resource for employees. Thus this factor should be paid more attention to and the risk controls should be increased by way of sharing information more openly and allowing employees to share their feedback, when there is such.

Similar situation is with “Inability to meet modern requirements in teaching and modern requirements”. Risk criticality is rated as quite low (2.8) and the risk controls are also considered to be quite weak (3.0). According to research this risk has increased daily burden of responsibilities for nowadays employees in educational institutions and is attributed to the job demands. This risk should have stronger controls, which can be provided through dedicated trainings to employees and self-development events in modern requirements area.

Conclusions and recommendations

Overloading of employees is the category of job demands, if looking from the perspective of Job Demand-Resources Model. In combination with low job controls on the employee side and lack of recognition of employee’s effort it causes work-related stress and burnout (Hakanen et al., 2006). The research has

proved that psychosocial risks, such as overloading of employees and lack of motivation, are not dealt well with, what is provided by empirical study results, where risk controls were rated as very low mainly for those risks, which were rated as very significant. Risks should be minimised by applying effective psychosocial risk management techniques and increasing awareness. For example, to minimise the risk, high workload can be combined with increased job resources, such as job controls, appraisals and supervisory support. These controls, if well organised, should minimise the risk of job stress, overburning and loss of motivation (Guadix et al., 2015).

There are a number of tools developed for employers for management of psychosocial risks and assessment of employee stress levels, which should be used as preventative measures for psychosocial risk treatment. For example, just to mention a few: Kessler Psychological Distress Scale (K10) – a brief, but reliable 10-item scale, used to determine psychological distress; Copenhagen Psychological Questionnaire (COPSOQ) – systematically assesses relationship between psychosocial environment and health, is used to evaluate eight of the most important psychosocial dimensions and helps to evaluate also risk to employee's health (Souto et al., 2018).

Health and psychological well-being of teachers should be of foremost importance in management of education, as it has direct impact on the quality of education and the main affected stakeholders are students.

Specific policies addressing workload of teachers should be designed, implemented and regularly checked. Perception of teaching job and social status should be raised and promoted, to attract more students to pursue teaching job with intrinsic motives.

By replacing frontal instruction with group and individual work and presentations would take the burden of voice overload off the teachers. Decreasing and balancing workload should lead to reduced stress level and voice load.

Increased job demands and decreased job resources are the direct indicators of employee overburning and exhaustion, on the other hand balancing increasing job demands with strengthening job resources would mitigate the psychosocial type of risks. Hence, different types of job demands and resources can be regularly measured by managers of educational institutions and evaluated in tandem by way of conducting risk assessment workshops involving the employees.

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SUSTAINABLE STRATEGY FOR A MORE RESILIENT STATE BORDER GUARD ORGANIZATION

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Abstract. *In line with the EU2020 strategy, sustainable development has been a high priority in the EU. Implementing a sustainable strategy in any organization is a complex, value-based multi-dimensional process where sustainability is translated and adapted in the regional context. Implementation of a sustainability strategy requires defining a vision, developing sustainable strategies, assessing the current state of arts, monitoring the process and providing the platform for all actors involved to implement the vision.*

The aim of the article is to offer a conceptual basis for building a sustainable strategy in the state border guard organization. This involves rethinking, repositioning the current strategy and formulating a future-oriented perspective in order to enhance awareness of the complexity, accept the dynamic nature of corporate sustainability and to adopt a proactive behavior towards sustainability issues. The paper presents a case study on challenges that the State Border Guard organization is facing for implementing a sustainability strategy. The research study presents a qualitative study for a deeper understanding of the process of conceptualizing and implementing a sustainability strategy in Latgale region. The methodology employed in the study is semi-structured interviews with the representatives of administration on the process and the challenges of implementing sustainability strategy.

Keywords: *corporate sustainability, multiple stakeholders, resilience, sustainability strategy*

Introduction

Developing a sustainable and a long term strategy is not anymore an option but an imperative of strategic planning in any sphere of life. In a contemporary world of military and religious conflicts, this is particularly important to plan strategically and with a sustainable mission in mind. Sustainability as a strategy goes beyond the environmental aspects and presents a holistic vision, including political, culture, economic and social aspects of an organization (Blackburn, 2007). The world has changed immensely during the last fifty years and any organization cannot stay any longer as a closed system. It must be seen as an open and dynamic system that is resilient to many disruptions from the outside world.

It needs to adapt a long-term strategy and effective balance between security and environmental and societal requirements (Hartman, Butts, Bankus, & Carney, 2012). Sustainability strategy sets long-term goals for building a safe and sustainable world. Sustainability is a management approach with its system framework focused on the wise use of resources and socially responsible action (UN, 2015). Sustainability vision requires fostering on sustainability ethics, innovations, thus enhancing well-being for all. *The Agenda 2030 of Sustainable Development* (2015) serves as a comprehensive framework to reach a better world for everyone and provokes a paradigm shift providing a space for a system change in an organization. The following section of the paper outlines a conceptual framework for implementing a sustainability strategy in the State Border Guard organization.

The aim of the article is to offer a conceptual basis for building a sustainable strategy in the state border guard organization and to explore the process of implementing the sustainability strategy in practice. The methodology employed in the study is semi-structured interviews with the representatives of administration on the process and the challenges of implementing sustainability strategy.

Towards a Sustainability Strategy

Sustainability thinking has become an emergent transdisciplinary paradigm in sustainability science research (Keys, Huemann, & Turner, 2014). This involves complex thinking, new methods in dealings with new emerging problems, and a new ecological understanding of the world order. Ecological understanding presents a worldview of a sustainable balance between various subsystems. Leaders within the organization serve as forces that encourage innovation, continuous improvement and diversity that brings along choice, resilience, and sustainability (Fenton, 2016). Another characteristic of an organization as a living system is the coevolution of interdependent units of the organization. The environment of an organization becomes increasingly dynamic and complex and requires co-evolutionary relationships, characterized by reciprocity, simultaneity, adaptability, boundary spanning and permanence (Werbach, 2009).

An authentic strategic vision involves formulating core values, dedication, challenges, inspiration, organizations' mission, vision, and strategies, as well as a procedure and criteria for measuring progress (Stead & Stead, 2014).

Instead of embracing sustainability as a piecemeal approach, this requires adopting a holistic view of sustainability and making it an integral component of an organization's strategy (Lowitt, 2011). Implementing sustainability strategy requires considering its rich complexity, transdisciplinary context, value bases,

and ambiguity of the sustainability term. The sustainable strategy requires the adaptive capability of an organization to engage diverse groups of stakeholders in a long-term planning process. The sustainable strategy requires developing a shared purpose and values (Fiksel, Eason, & Frederickson, 2012). As (Sivius & Tharp, 2013, 34) reported, formulation of a strategy requires “strategic ambidexterity - alignment and emergence” (Leff, 2014, p. 9). A new sustainability paradigm involves complex thinking about “the interrelatedness of ontological and epistemological order” and changes of meanings and priorities (Leff, 2014, p. 9). Building a sustainability strategy also involves creativity in thinking, innovative knowledge, and sociological imagination (Leff, 2014).

Dealing with a Complexity as a Current State of Arts

Complexity has no rigorous definition. It can be better described by a holistic nature of the term that cannot be reduced to separate parts (Holland, 2014). Complexity thinking was developed in many areas, such as systems theory, chaos theory, and nonlinear dynamics to name but few. The transdisciplinary character of complexity thinking also makes it difficult to provide any specific definition (Davis & Sumara, 2014). Complexity theory seeks to understand how order and chaos arise from the interaction of many components of the system where new properties emerge in the adaptive interaction chains and adaptive orientations of a system (Masson, 2008). Complexity theory is a theory of change, evaluation and adaptation (Waldrop, 1992).

The State Border Guard organization being a typical hierarchical organization can be viewed as a complex system where emergent properties of the system are consistent with the existing properties at lower levels and are ambiguously bond to a closer surrounding and a community. The State Border Guard organization being organizationally closed and stable, maintain a stable equilibrium, and its organizational patterns endure when the organization has to encounter the diverse dynamic contexts (Davis & Sumara, 2014). The organization itself is a nested system composed of many units and subunits and interdependencies (See Figure 1)

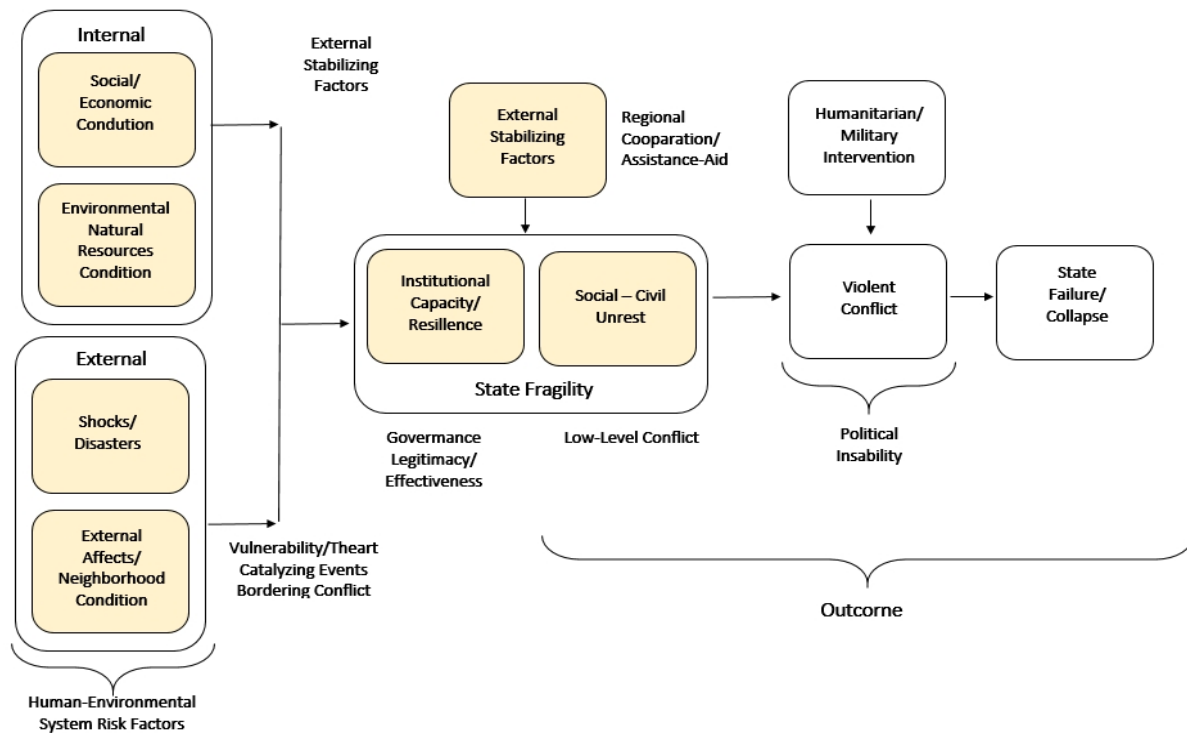


Figure 1 Complexity of Functionality of the State Border Organization
(adopted from Hartman et al., 2012)

As a complex system, it is a self-organizing system where any small changes produce bigger changes caused by the adaptive interactions. As a complex system, it is a self-organizing system that adaptive and actively responds to new challenges and threats and brings order in the preliminary chaos (Stacey, Griffin, & Shaw, 2000).

Building Resilience of the State Border Guard Organization

Any organization needs to develop resilience and to constantly adapt to the challenges of globalization and technological advancements. In order to stay efficient in a constantly changing environment, the State Border Guard organization needs to develop its resilience to outside pressures and challenges. Resilience is a key component in the sustainability strategy of an organization. In a complex and a globalized world, the State Border Guard organization needs to deal with a number of disruptions coming both from inside and outside. The vision of the State Border Guard organization is to ensure the safeguarding of the borders more often under uncertain, ever-changing and dynamic conditions. This requires adaptive management strategies, resilient capabilities in building teamwork, ability to act in the situation of unforeseen disruptions and in mastering competence. Resilience expands from protecting territory against specific threats to flexibility and proactive action. Fostering adaptability is a part of the

sustainability strategy in a response to disruptions from outside. The organization needs to be able to adapt to uncertain and changing conditions.

Expanding Collaboration with Multiple Stakeholders

Expanding collaboration means involving multiple stakeholders, such as NGOs, academia, government, organizations, and a community in order to foster sustainable and resilient communities. This requires a detailed analysis of local challenges and needs. In line with the UN agenda 2030 (UN, 2015), the organization intends to act in a collaborative partnership in building the world in a more sustainable and resilient way. Seventeen sustainable development goals also demonstrate the ambition of the UN associated countries in envisioning a just, tolerant and safe world in their shared commitment and collaboration.

Research Methodology

For the purpose of this research study, the authors have applied a qualitative research methodology to understand the process of implementing a sustainability strategy for the State Border Guard organization. The qualitative analyses were undertaken to explore this unique case in order to identify the success factors and obstacles of implementing sustainability strategy in the organization. The case study approach is widely used in management research that helps to answer “how” and “why” questions to gain the evidence from the processes in order to develop explanatory information and explore how the organizations implements the sustainability strategy in practice.

The authors have carried out one-hour long interview with three representatives of the administrative body of the State Border Guard organization. The main focus of the semi-structured interviews was to carry out the inquiry about the process of implementing a sustainability strategy: struggles and difficulties, visions and hopes as seen by the administrative bodies of the organization. To gain an informative picture on the process of implementing a sustainability strategy in the organization, interviews were carried with three representatives from the department of strategic management and human resource management. The interviews were undertaken during the process of translating sustainability strategy into practice. Interviews were taken in an onsite situation in a semi-structured interview format. Interviews lasted sixty minutes and were complemented with spontaneous questions. All respondents had higher education and qualification gained in training abroad. All of them can be described as professional and motivated informants. The informants were asked how sustainability is being implemented in their organization (What policies and instruments do they use, what are main sustainability challenges the organization

is facing? How do the organization is dealing with those challenges at the strategic level? Who is involved in strategic decision-making processes? How successful is the organization in achieving set sustainability objectives? Is the respondent's own sustainability activity is linked to the overall organizational culture and mission? How relevant sustainability strategy is for the future of the organization? What new concepts and instruments one needs for implementing sustainability?).

Small case studies have been a subject of criticism because of lack of validity and generalizability. Still, the present research has identified challenges in the process of bridging the gap between the formulation of the strategy and implementing it in practice and do not offer any generalizations. Qualitative research, being holistic, implies multiple interpretations and perspectives that are reflected in the research findings. The authors tried to avoid predicting respondents' likely responses and avoid preconceived understandings and notions. Instead, the authors tried to reduce biases by formulating questions so that the meaning is clear for the participants and organizing the interviews as shared, negotiated and a dynamic process. We allowed the participants to take their time and to answer their way, we adopted a sensitive attitude, active listening techniques, and were checking the reliability, validity, and consistency of responses by good places questioning.

In recent studies particular attention has been paid to aspects of implementing sustainability strategy in organizations, therefore the focus of this study is on diverse aspects on how the strategy is implemented in practice.

Research Findings

Three representatives of the administrative body were asked to participate in the inquiry on a voluntarily bases and signed their consensus of participation in the research. The authors have granted anonymity to all the participants of the research. All three respondents described in a detail the main mission and a responsibility of the State Border Guard organization in safeguarding the country's borders according to the State migration policy in line with the State security policy. The organization is responsible for the state security and is involved in a constant evaluation of social and economic factors in their dynamic development while facing new EU challenges and undertaking new responsibilities. All of them define the policy of personal management as a management of educated and efficient personal while building the employee's loyalty to the organization. The organization is engaged in evaluating risks in the security sphere (international terrorism, trafficking). The organization has high requirements to offer services according to the international requirements that require innovative solutions and contemporary technical solutions in order to ensure border security. As one of the respondents reported, technological

innovations became one of the main stimulus for continuous development of functioning of the organization and its development.

Implementing the sustainable State Border Guard strategy will allow them to maintain and to develop the system of border security according to the EU requirements and Schengen requirements. Among the tasks of the State Border organization are the following: to ensure the efficiency of border check points by use of innovative technical solutions based on biometric evaluation of data, thus ensuring the effectiveness of control of the sea border by the use of innovative technical equipment and by maintaining video observance, thus ensuring the participation of the State Border Guard organization in international missions and operations as well as participating in international missions and operations in Europe, and in Frontex activities. The organization is also responsible for maintaining border security and is engaged in controlling migration processes on the borders.

One of the representatives of the staff has commented that the sustainability strategy goes beyond formal tasks and requirements and pointed to its holistic and complex character in making local and global impact for implementing sustainability goals and maintaining security. For the evaluation on the organization’s sustainability, all the three respondents have mentioned significance of all factors: environmental, economic and societal. Sustainability involves greater complexity shaped by various regional demands. The process of implementing a sustainability strategy allows addressing regional challenges in a more innovative way by considering economic, political, and environmental aspects. The following descriptive characteristics of a sustainable strategy were identified during the interviews and supported by the literature review (Table 1).

Table 1 Organizations’ sustainability descriptors (from interviews and supported by (Fiksel et al., 2009)

Sustainability Indicators	Descriptive
Relevant	Enhancing social and environmental conditions as well as economic prosperity.
Meaningful	Comprehensible and transparent
Objective	Respectful to regional, cultural and socio-economic differences
Effective	Adaptable at regional, state, or local levels
Comprehensive and systems-based	With system perspective
Durable with long-term relevance	Having a long-term perspective
Stakeholder participation	Building networks with societal partners

The success factors of implementing sustainability strategy as identified are the following: organizational structure (expectations, experience, open and dynamic frame of the organizational structure); leadership (vision where

sustainability is regarded as a central element), employee’s motivation to participate in the process of implementing the strategy, training, workshops), and a communication with the multiple stakeholders (concern about their needs) (Martin & Verbeek, 2006).

Table 2 Interview responses with the staff members from the management team (designed by the authors and is based on interview data)

Response	Interview questions
<p><u>Sustainability challenges</u> Among the most topical issues that the organization is facing are such globalization challenges as migration processes, ecological issues, and border security challenges.</p>	What are the main sustainability challenges the organization is facing?
<p><u>Sustainability challenges</u> The staff members are undergoing training, both in Latvia and abroad by acquiring new strategies and innovative solutions, though ensuring border security issues.</p>	How do the organization is dealing with those challenges at the strategic level?
<p><u>Involvement in the decision making processes</u> All administrative staff members are being involved in management planning processes for implementing sustainability strategy</p>	Who is involved in a strategic decision- making processes?
<p><u>Factors of success</u> All respondents are aware that there is a long way to go for implementing sustainability strategy to become a whole institutional strategy, still some elements are already being implemented successfully. Among the factors of success that were mentioned were the following: organizational culture, motivation of employees to implement strategy and communication of sustainability message across the organization.</p>	How successful is the organization in achieving set sustainability objectives?
<p><u>Organizational culture and mission</u> All three staff members have undergone sufficient training both in Latvia and abroad and have a deep concern for integrating sustainability not only in legislation but in practice as well.</p>	Is your own sustainability activity is linked to the overall organizational culture and mission?
<p><u>Relevance of sustainability strategy for the organization</u> All interview participants are aware of the topicality of sustainability both globally and locally, as well as the need to implement it.</p>	How relevant sustainability strategy is for the future of the organization?
<p><u>Instruments for implementing sustainability strategy</u> Raising awareness about the sustainability issues, communicating sustainability message across all levels in the organization, engaging in a team work.</p>	What new concepts and instruments you needs for implementing sustainability?

Recommendations for Implementing Sustainability Strategy in the State Board Guard Organization

Every organization has a unique organizational structure, aims, therefore, a robust sustainability strategy needs to be designed as relevant for a particular organization. Concern about sustainability and societal issues require organizations to adapt sustainability strategies by balancing societal, environmental and culture aspects of the organization and the society. All aspects of sustainability strategy need to be taken into account, such as economic, ecological, social and culture aspect (Alibašić, 2018).

Sustainability needs to be integrated into a core strategy and need to be related to all aspects of the organization, such as organizational culture, leadership, employee motivation and communication of sustainability message across all sectors of organization. This is important that strategy fits coherently with the processes that are taking place in the organization (Engert & Baumgartner, 2016).

All members of the organization need to create a common understanding of the concept of sustainability and its value. Corporate sustainability strategy needs to be translated into practice and the factors that foster implementing the strategy also need to be taken into consideration which is the following: an organizational culture, motivation of employees and communication of a sustainability message.

The identification of stakeholders and their needs should be considered of high importance that influences the implementation process of a strategy. This is essential to develop a holistic framework of how the organization is functioning and to consider all interactions between tangible and intangible assets (see Figure 1).

While implementing a sustainability strategy, the organization needs to respond to a reality of a changing world and activate social, environmental and cultural changes that may lead to sustainable transformations. Incorporation of a sustainability strategy involves redesigning and redefining the existing strategy that meets the needs and expectations of all stakeholders and supports long-term value.

Conclusions

Developing and implementing a sustainability strategy requires a system approach by taking into account all the aspects of sustainability: societal, economic, political, and environmental. Sustainability is a complex issue that is a crucial issue for present and future generations. Sustainability is an ability of an organization to maintain systems comprehensively, with a minimum negative

social, economic, environmental, and governance effects on resources while maximizing positive results

Implementing a sustainability strategy requires strength of commitment and a good will of all actors involved by concentrating energies and resources of all team members and applying a multi-dimensional change program by incorporating new information, policy, and initiatives.

The State Border Organization needs to be viewed as a living and adaptive organization resilient to outside pressures and influences and need to have a capacity to learn and to improve. The organization needs to undertake the path facing changes that might be non-linear and irreversible. A sustainability strategy must be flexible, which is determined by the need to assist in rapid adaptation. New initiatives and information need to be supported by the sustained efforts in order to alter new information ordering structures towards a sustainability trajectory.

A chaotic external world requires internal cohesion and flexibility of the organization in its move towards a sustainability strategy. This requires analyzing the changing landscape and engaging in future scenario writing and setting a greater purpose in connection with broader global challenges (political, economic, environmental and cultural). All actors involved need to make sure how sustainability align with the organizational goals, vision and mission statement and how committed is the personnel to implement this vision.

The case study was an attempt to increase understanding about the process of implementing sustainability strategy in the State Border organization, with a particular focus on a gap between the formulation of the strategy and implementing it in practice. The results gained in this study confirm the relevance of factors outlined in other studies. This case study attempted to outline specific conditions and a deeper understanding of success factors for implementing sustainability strategy in practice. The designed recommendations refer to specific conditions for implementing sustainability strategy in the State border organization.

The organization is facing a number of sustainability problems; therefore, case analyses presents one of the 'wicked' issues that need an absolutely new framework for dealing with is. This framework for the state border guard organization the authors define as an open, dynamic and self-organizing system that is resilient to the outside pressures.

As the interview data shows. among the factors of success in implementing the sustainability strategy are the following: whole institutional strategy, organizational culture, motivation of employees to implement strategy and communication of sustainability message across the organization.

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ANALYSIS OF FACTORS INFLUENCING QUALITY CULTURE AND THEIR IMPACT ON ORGANIZATIONAL DEVELOPMENT

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Abstract. *Total quality management is an approach geared towards the organization's efforts to continuously improve its ability to provide its customers with high quality products and services. In order for the organization to be able to ensure efficient use of resources, increase productivity and maintain excellent quality, it is necessary to develop quality culture. The aim of the research is to study and analyse the quality culture factors that might influence the continuous improvement and development of the organization's activities. The research is based on the study of quality culture factors using literature review, qualitative content analysis and the "Organizational Culture Assessment Instrument" developed by Cameron and Quinn. On the basis of the results of a qualitative content analysis, the frequency of the categories of quality culture parameters in the literature was determined; with the help of the method of logical analysis and comparative analysis, the factors of quality culture corresponding to the parameters – dominant features, organizational leadership, employee management, organization glue, strategic goals and success criteria – were identified.*

An organizational culture based on quality culture principles is a significant factor for utilization of organizational competencies, creating an effective management and resource-oriented approach that is implemented focusing on the organization's long-term interests and goals. By adopting a total quality management philosophy in the organization's operations, the company can become more competitive, creating a working environment in which every employee can contribute, as well as facilitating cooperation between team members.

Keywords: *performance improvement, quality culture, total quality management.*

Introduction

Total quality management is a way of thinking about the organization's goals, processes and employees; it can change the attitudes and behaviour of the whole organisation and its staff, improving the organizational performance. An organizational culture that is based on the principles of total quality management is an essential factor in the continuous improvement, efficiency, development and sustainability of the organization.

The aim of the research is to study and analyse the quality culture factors that might influence the continuous improvement and development of the organization.

The research is based on the study of quality culture factors using scientific methods – literature review, qualitative content analysis, and the “Organizational Culture Assessment Instrument” – a method to assess types of organizational culture developed by Cameron and Quinn (Cameron & Quinn, 2011). As a result, the frequency of the categories of quality culture parameters in the literature was determined; the factors of quality culture corresponding to the parameters – dominant features, organizational leadership, employee management, organization glue, strategic goals and success criteria – were identified.

The results of a quality culture parameter analysis were used to identify the quality culture factors that correspond to the types of organizational culture: “clan culture”, “adhocratic culture”, “market culture” and “hierarchical culture”. The analysis of quality culture factors revealed the criteria that are focused on organizational development. As a result of the research, it is possible to identify quality culture factors which are based on the principles of total quality management and can, under certain circumstances, produce positive results for the development of an organization.

Methodology of Quality Culture Analysis

The research is based on the study of quality culture factors using literature review, qualitative content analysis and the “Organizational Culture Assessment Instrument” developed by Cameron and Quinn. On the basis of the results of a qualitative content analysis, the frequency of the categories of quality culture parameters in the literature was determined; with the help of the logical analysis and comparative analysis methods, the factors of quality culture corresponding to the parameters – dominant features, organizational leadership, employee management, organization glue, strategic goals and success criteria – were identified.

With the help of qualitative content analysis, the authors revealed the factors that are included in “quality culture” and the frequency of categories in the literature. For qualitative content analysis, research papers were selected using keywords “quality culture”, “organizational culture”, “total quality management”, choosing 20 literature sources available in the international publication database ScienceDirect, in scientific journals, research, scientific literature and internet information sources. The article was prepared between June 2018 and January 2019.

The codes and categories identified during the qualitative content analysis are shown in Table 1.

The Latvian Business Consulting Centre “OKA Centrs” Ltd. (Organizational Culture Analysis Centre) (SIA OKA Centrs, 2015) has prepared descriptions of organizational culture dimensions on the basis of the organizational culture typology developed by Cameron and Quinn; and the authors of this study have used these descriptions to explain the codes.

Table 1. Summary of codes and categories (SIA OKA Centrs, 2015)

Code (SIA OKA Centrs, 2015)	Category
A general set of the organization’s common features and values	Dominant Features
Leadership-related functions	Organizational Leadership
Dominant management style and key features	Employee Management
Features and values that unite the organization	Organization Glue
Emphasis on organizational values which are deliberately communicated	Strategic Goals
Goals that are considered to be a success	Success Criteria

The category usage frequency was determined on the basis of the literature analysis. It is shown in Table 2.

Table 2 Category usage frequency (prepared by the authors)

Categories	Frequency	
	Number	%
Dominant Features	12	70%
Organizational Leadership	7	40%
Employee Management	6	35%
Organization Glue	9	50%
Strategic Goals	11	60%
Success Criteria	12	70%
	Total: 57	

From the data given in Table 2, it can be concluded that in the literature the categories “Dominant Features” and “Success Criteria” were each reviewed 12 times (70%). A similar frequency in the literature is attributed to the category “Strategic Goals” which was discussed in 11 cases (60%), while the category “Organization Glue” was reviewed in 9 cases (50%).

Least reviewed in the literature, but numerically similar were the categories “Organizational Leadership” and “Employee Management”. The category “Organizational Leadership” was reviewed in 7 cases (40%), but the category “Employee Management” was reviewed in 6 cases (35%).

The frequency of using the categories “Dominant Features”, “Success Criteria”, “Strategic Goals” and “Organization Glue” in the literature indicates

that quality culture is linked to the organizational culture. These quality culture elements prove that quality culture is a specific aspect of organizational culture focused on the improvement of daily work and methods.

According to the qualitative content analysis, the selected literature sources correspond to the question posed (What factors does quality culture comprise?) and provide an answer to it.

Results of the Study

The quality culture parameters and factors of quality culture development were determined with the help of the logical and comparative analysis method on the basis of analysis of scientific publications and literature performed by qualitative content analysis; these parameters and factors are shown in Table 3.

The quality culture parameters, which include the organisation's dominant features, organizational leadership, employee management, organization glue, strategic goals and success criteria, are compiled by the authors in Table 3.

Table 3 Quality culture parameters (prepared by the authors)

Factors	Authors
Dominant Features: - principles of operation, practice, conditions and behaviour of the organization; - employee orientation, employee involvement, communication; - entrepreneurial spirit and work environment; - ideology for improving work methods and results, motivation to achieve results; - creating, maintaining, improving quality awareness.	Ahmed & Nulland (2016); European University Association (EUA) (2006); Gore (1999); Harvey (2004); Hanze University of Applied Sciences (2011); Juran & Godfrey (1998); Lapiņa, Kairiša, & Aramina (2015); Malhi (2013); Mosadegh Rad (2006); Surssock (2011).
Organizational Leadership: - leadership development, organizational vision, mission creation, defining key objectives; - change of quality culture, support for quality improvement with structural elements; - fostering leadership, incl. promotion of individual development of employees, recognition and awards	Ahmed & Nulland (2016); Batten (1992); Hanze University of Applied Sciences (2011); Juran & Godfrey (1998); Kanji & Wallace (2000); Malhi (2013); Surssock (2011).
Employee Management: - work environment that promotes employee growth, motivation; - employee self-development, respect and tolerance; - management elements that improve quality, employee competence assessment, audit.	Ahmed & Nulland (2016); Drinke & Janovs (2011); Hanze University of Applied Sciences (2011); Juran & Godfrey (1998); Malhi (2013); Surssock (2011).
Organization Glue: - set of organizational values, beliefs, expectations, commitment to quality;	Ahmed & Nulland (2016); Cameron & Sine (1999); EUA (2006); Hanze University of Applied Science

<ul style="list-style-type: none"> - continuous training, compensation, empowerment of employees; - responsibility of the organization, a work environment that promotes fairness, communication, participation, trust, respect, understanding of common goals and tasks. 	<p>(2011); Harvey (2004); Juran & Godfrey (1998); Luburić (2013); Malhi (2013).</p>
<p>Strategic Goals:</p> <ul style="list-style-type: none"> - sustainable quality strategy, long-term interests, development, increase in productivity; - decision-making; - customer and stakeholder satisfaction; - evidence of quality management in the organization. 	<p>Ahmed & Nulland (2016); Campos, Mendes, Silva, & Valle (2014); Drinke & Janovs (2011); Gambi, Gerolamo, & Carpinetti (2013); Jancikova & Brychta (2009); Juran & Godfrey (1998); Kanji & Wallace (2000); Lapiņa et al. (2015); Malhi (2013).</p>
<p>Success Criteria:</p> <ul style="list-style-type: none"> - increasing the organisation’s competitiveness and productivity; - improving the quality of products and services; - improvement of quality and work processes, innovations, modernization; - promoting participation, shared values. 	<p>Campos et al. (2014); Berings, Beerten, Hulpiau, & Verhesschen (2010); Drinke & Janovs (2011); EUA (2006); Juran & Godfrey (1998); Lapiņa et al. (2015); Malhi (2013); Rapp (2011); Rose, Kumar, Abdullah, & Ling (2008)</p>

During the analysis of the quality culture parameters, the following factors of quality culture relevant to the parameters were identified: dominant features, organizational leadership, employee management, organization glue, strategic goals and success criteria. The results of quality culture parameters analysis were used to identify quality culture factors corresponding to the types of organizational culture: “clan culture”; “adhocratic culture”; “market culture” and “hierarchical culture”.

When describing the principles of the organization’s activities, R.S. Malhi (Malhi, 2003) expresses the view that in a quality culture, “quality” is a way of life, quality principles are reflected in the activities and behaviour of the organization, whereas I. Lapiņa et al. (Lapina et al., 2015) highlight the idea that in order to facilitate quality management and good organizational governance, companies should pay more attention to the operating principles and conditions. According to the authors, the principles and conditions of the organization’s activities focus on the organization’s internal orientation and are an important factor in the development of the organization and the creation of innovations, and the willingness of employees to take risks, which is characteristic of an “adhocratic culture”.

There is a view (Gore, 1999) that a radical process change (reengineering) can reduce the positive elements of culture, possibly the best way to tackle it is by ensuring that process improvement efforts are launched at the beginning of any total quality management initiative and used in total quality management

concepts, such as employee involvement or good communication. A.M. Mosadegh Rad (Mosadegh Rad, 2006) also emphasizes employee involvement and good communication in improving the organizational performance by analysing successful implementation of total quality management within an organization, explaining that organizations need to build an effective, quality-based organization that provides communication at different levels within the organization, that they need to change the bureaucratic system, develop a strategic plan to have work performance guidelines. This statement is related to the view expressed by R.S. Malhi (Malhi, 2013) that in an organization with quality culture, quality is deeply integrated into practically all aspects of the organization's life, including focus on employees.

According to the authors, focus on employees, involvement, good communication contribute to the loyalty of the organisation's employees, mutual trust that is typical of a "clan culture" and is an important factor for developing the organization and making positive changes.

There exists an opinion (Ahmed & Nuland, 2016; Hanza University of Applied Sciences, 2011) that quality culture manifests itself in the entrepreneurial spirit and that a work environment that promotes team spirit is an essential factor in organizational development. The authors agree with this statement, because it is the entrepreneurial spirit that is embodied in the organization's work, which focuses on the organisation's willingness to take risks, where success is rooted in innovation that is essential for organizational development; these factors being characteristic of an "adhocratic culture".

A. Sursock (Sursock, 2011) believes that a quality culture approach is based on the motivation to achieve results. L. Harvey (Harvey, 2004) explains that quality culture is a set of practices adopted by an organization that embrace the group or organizational ideology and determine how to improve daily work methods and results. The authors believe that the organisation's ideology for improving work methods and results is based on the motivation to achieve results and focuses on the external orientation of the organization, creating a competitive edge in the market; it is characteristic of a "market culture".

Joseph M. Juran and A. Blanton Godfrey (Juran & Godfrey, 1998) believe that one of the elements of developing a positive quality culture is the creation and maintenance of quality awareness. When developing a definition of quality culture, the European University Association (EUA, 2006), similarly to Joseph M. Juran and A. Blanton Godfrey (Juran & Godfrey, 1998), note that quality culture is a structural management element with certain processes which improve quality and aim to coordinate individual efforts that, according to the authors, characterize the organisation's focus on results, which is typical of a "market culture".

There are different views in the literature on the impact of leadership on organizational development. J.D. Batten (Batten, 1992), describing the role of a leader in a quality culture, believes that total quality management is a company's philosophy, a way of thinking about the company's goals, organization, processes and people, and is the basis of the quality culture. The role of the leader in creating a quality culture is to create visions and dreams, to define the mission and main goals of the organization. A. Ahmed and Y.V. Nulland (Ahmed & Nulland, 2016) also believe that leadership is one of the most important success factors of quality culture.

The authors are of the opinion that the aim of the quality management system is to achieve, retain and improve the quality of the organization. K. Kanji and W. Wallace (Kanji & Wallace, 2000) argue that behind all successful organizations there have been leaders who have revived and changed the quality culture in their organization, A. Sursock (Sursock, 2011) expresses a similar view that a quality culture approach should be supported by structural elements that improve quality.

On the basis of the opinions expressed on the importance of leadership in organizational development in the literature, the authors conclude that the organization should focus on business development, risk-taking and innovation, which is characteristic of an "adhocratic culture".

Joseph M. Juran and A. Blanton Godfrey (Juran & Godfrey, 1998) and the Hanza University of Applied Sciences (2011) consider recognition and rewarding to be positive cultural development elements in promoting individual development.

The authors believe that promoting individual development, recognition and rewarding of employees are quality culture factors that characterize the direction of the organizational leadership. The idea of leadership that is geared to supporting employees, offering work incentives, promoting new ideas is typical of a "clan culture".

Employee management or management style in the organization characterizes the facilitation of employee involvement in quality improvement. A. Ahmed and Y.V. Nulland (Ahmed & Nulland, 2016) express the view that an integral part of a quality culture is a work environment that promotes employee growth and that employee motivation is a key success factor for quality culture. Malhi (Malhi, 2013) characterizes an organization with a quality culture emphasizing the importance of motivating employees, recruitment and promotion.

A positive work environment, according to the authors, is a stimulus for employees to find new opportunities in organizational development, promote the creation and uniqueness of innovation; such an approach to the employee management enhances the competitiveness of the organization, facilitates

individual risk-taking and creative freedom; these are features of an “adhocratic culture”.

Joseph M. Juran and A. Blanton Godfrey (Juran & Godfrey, 1998) believe that ensuring employee self-development contributes to the growth of a positive quality culture within the organization; Hanze University of Applied Sciences (2011) strives at a quality culture that expresses itself in the values of the organization, including respect and “active tolerance”. According to the authors, the management style characteristic of a “clan culture” – teamwork, compromises, participation in decision-making – determines the level of employee involvement in quality improvement within the organization.

It is believed that a quality culture approach is supported by managerial elements (Sursock, 2011) and, in order to ensure efficiency of the organisation, it is possible to use the quality management system methodology that includes the development and assessment of employee competences, as well as the development of personnel management audit (Drinke & Janovs, 2011). According to the authors, such an employee management approach is characteristic of a “market culture” that focuses on high requirements, competitiveness and rewarding employee performance.

The European University Association (EUA, 2006), in the definition of quality culture, explains that quality culture is a psychological element because it comprises the organisation’s shared values, beliefs, expectations and commitment to quality; a similar explanation is given by L. Harvey (Harvey, 2004) who emphasizes the importance of organizational values in improving the organization’s daily work methods and results. K. Cameron and W. Sine (Cameron & Sine, 1999) highlight quality as a set of values, an organizational ideology more than a set of tools and methods. The authors believe that the organisation’s shared values, beliefs, expectations and commitment to quality determine the united commitment of the members of the organization to undertake innovative actions aimed at the development of an “adhocratic culture”.

R.S. Malhi (Malhi, 2013) thinks that in an organization with a quality culture, continuous training and compensation of employees is one of the factors of quality culture; there are also views (Ahmed & Nulland, 2016; Juran & Godfrey, 1998) that quality culture success factors and elements for the development of a positive quality culture within the organisation are the employee empowerment and enhancing their powers. The authors believe that employee empowerment is characteristic of organizations focusing on new solutions. Enhancing employee empowerment promotes the organization’s unity and development, which is characteristic of an “adhocratic culture”.

According to Hanze University of Applied Sciences (2011), quality culture in the organization is a responsibility that is one of the values of quality culture. A. Ahmed and Y.V. Nulland (Ahmed & Nulland, 2016) express a similar opinion,

emphasizing a work environment that promotes fairness. R. Luburić (Luburić, 2013) is of the opinion that quality culture can be considered a quality management initiative and a guiding principle. All the above-mentioned means communication, participation, mutual trust and respect, understanding of common goals and tasks, as well as efforts to balance and harmonize both traditions and changes in all their contradictions and specificities.

The authors believe that the responsibility of the organization, a work environment that promotes fairness, communication, participation, trust, dignity, understanding of common goals and tasks are factors of organization glue that manifest themselves in the loyalty and trust of employees, which is characteristic of a “clan culture”.

An organization needs a strategy to identify the organisation’s current position, define and assess its activities, evaluate its resources, plan how the strategy will be implemented and how the result will be achieved.

L.N. Gambi et al. (Gambi et al., 2013) believe that organizations see quality management as part of a strategy to increase productivity. A. Ahmed and Y.V. Nulland (Ahmed & Nulland, 2016) express the view that a sustainable quality strategy depends on the creation of a quality culture; a similar view is expressed by G.K. Kanji and W. Wallace (Kanji & Wallace, 2000), who believe that a quality culture which is dynamic and progressive is constantly evolving and helping to change business. I. Lapiņa et al. (Lapiņa et al., 2015) note the need for the organization to stimulate employees to focus on the long-term interests of the organization.

The authors believe that the organisation’s emphasis on creating new opportunities is focused on innovation, while the need to increase productivity draws attention to the provision of new resources, which is inherent to an “adhocratic culture”.

According to R.M. Malhi (Malhi, 2013), in an organization with a quality culture, quality is integrated into decision making and organizational structure. The authors believe that the organisation’s strategic goals aimed at employee development, trust, openness, and belonging are features of a “clan culture”, as any organization’s goals are products, services and efficiency, each employee’s responsibility provides involvement and decision-making.

A. Jancikova and K. Brychta (Jancikova & Brychta, 2009) are of the opinion that the basic principles of total quality management – continuous improvement and customer satisfaction – are essential for maintaining the organization’s competitiveness in the competitive environment. R.S. Malhi (Malhi, 2013) believes that quality culture is focused on customer satisfaction. A.C. Campos et al. (Campos et al., 2014) note that the development of a total quality culture is a strategic issue aimed at achieving stakeholder satisfaction in a very demanding and variable business environment. The authors share the views expressed, as

customer and stakeholder satisfaction is one of the most important strategic goals of the organization that can influence the organization's competitiveness in the market.

Joseph M. Juran and A. Blanton Godfrey (Juran & Godfrey, 1998) think that one of the elements necessary for developing a positive quality culture is providing evidence of management leadership on quality. Similarly, Z. Drinke and V. Janovs (Drinke & Janovs, 2011) offer a solution for ensuring efficiency by using elements of the quality management system methodology, emphasizing the orientation to the use and improvement of existing resources, as well as process management. This is necessary to gain evidence about how the organization identifies, manages and enhances its main processes to implement the organization's strategy and policies so that they fully meet the needs of customers and other stakeholders and create added value.

The organisation's strategy based on customer and stakeholder satisfaction, evidence-based quality management within the organization demonstrate, according to the authors, the organization's focus on competitive activities geared to the market, which is characteristic of a "market culture".

The organisation's success criteria describe reaching goals of success. The authors believe that the organization's goals are products, services and efficiency, while the key resources that ensure reaching the goals are employees, finances, raw materials, technology and information.

R.C. Rose et al. (Rose et al., 2008) expresses the view that when organizations know how to develop their own organizational culture effectively, they improve productivity as well as increase the quality of employee performance. A.C. Campos et al. (Campos et al., 2014) emphasize the development of a total quality culture as a strategic issue for achieving the organisation's competitiveness. According to R.S. Malhi (Malhi, 2013), a quality culture focuses on continuous improvement of the quality of products and services; A. Sursock (Sursock, 2011) is of a similar opinion that quality culture is supported by processes that improve quality.

The authors believe that the organisation's success criteria aimed at increasing competitiveness and productivity, striving to continuously improve the quality of products and services characterize the organisation's focus on success in conquering the market and being ahead of competitors, which is typical of a "market culture".

According to R.S. Malhi, (Malhi, 2013), in an organization with a quality culture, quality is deeply integrated into work processes. The European Association of Universities (EUA, 2006) expresses the view that quality culture refers to an organizational culture which aims to continuously improve quality, and that the Flemish Bologna Expert Team in formulating quality culture as an integral part of a total quality management paradigm emphasizes that a quality

culture is an organizational culture that promotes effective care for quality (Berings, Beerten, Hulpiau, & Verhesschen, 2010). Z. Drinke and V. Janovs (Drinke & Janovs, 2011) note that in order to ensure efficiency, it is possible to use elements of the quality management system methodology that focus on innovation and modernization, including optimal use of information technology in the organization's activities.

The authors believe that the development of quality and work processes focused on innovation is one of the success criteria. The organisation's success in developing new, unique products is inherent to an "adhocratic culture".

According to Joseph M. Juran and A. Blanton Godfrey (Juran & Godfrey, 1998), a positive quality culture in the organization can be developed by providing participation as a means of inspiring action; I. Lapiņa et al. (Lapiņa et al., 2015) emphasize the employees' shared values in the organization. The authors believe that the involvement of the employees in the organization's work by developing human resources, promoting teamwork and loyalty is one of the success criteria for the organization's achievements, which is characteristic of a "clan culture".

Conclusions

Quality culture factors that correspond to the parameters: dominant features, organizational leadership, employee management, organization glue, strategic goals and success criteria can affect the continuous improvement and development of an organization.

The organization's quality culture is influenced by the organization's structure, processes, implemented management measures, as well as each employee's individual involvement, responsibility and willingness to participate.

In order to develop a quality culture, organizational leadership should aim to increase the organisation's competitiveness. In order to enhance the competitiveness of the organization, it is necessary to create a positive work environment. Organization glue has to be expressed in shared values, understanding of common goals and objectives, employee participation in decision-making. The organisation's strategy should focus on customer and stakeholder satisfaction. Improving the quality of the organisation's products and services and improving work processes are also important factors in the continuous improvement and development of the organization.

An organizational culture based on the principles of a quality culture approach is an important factor in utilizing the organisation's competences by creating an effective management and resource-oriented approach that is implemented in pursuit of the organisation's long-term interests and goals.

On the basis of the study of theoretical aspects of quality culture and the analysis of factors, the authors conclude that there is a need to continue research

on the factors of interaction between “organizational culture” and “quality culture” which are important for the continuous improvement and development of the organization.

Summary

Total quality management is a way of thinking about the organization’s goals, processes and employees that can change the attitudes and behaviours of the entire organization and its employees, resulting in performance improvement.

By adopting a total quality management philosophy in the organization, the company can become more competitive, creating a work environment where every employee can contribute, as well as enhancing cooperation between team members. Likewise, total quality management is an approach that focuses on the organisation’s efforts to continuously improve its capability to deliver high-quality products and services to the customer, therefore maintaining high quality is essential. In order for an organization to be able to ensure efficient use of resources, increase productivity and maintain excellent quality, it is necessary to develop a quality culture.

Quality culture factors, despite their significant impact on the continuous improvement of the organisation’s activities, have been studied relatively little. The authors’ research study reveals the main factors of quality culture, which under certain conditions, can produce positive results for organizational development.

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MARKETING MANAGEMENT IN RECREATIONAL ORGANISATIONS

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Abstract. *The aim of the paper is to analyse selected aspects of marketing activities of recreational organizations from the Silesian Voivodship. The following research problems were diagnosed: analysis of the marketing structure, directions of activity and development as well as the meaning and motives of applying marketing in the surveyed recreational organizations functioning in the Silesian Voivodship. The results of the research presented in this paper and the considerations based on them allow formulating a general conclusion that profit and non-profit organizations operate in the common market of recreational services, both have a similar phase of the organization's life cycle, pursue similar recreational goals, offer similar services and direct them to the same clients, but the nature of ownership and the organizational and legal form determine the marketing concept model in these organizations.*

Keywords: *innovations, management, recreational services, Silesian Voivodship*

Introduction

Modern societies associate themselves more and more with values such as: health, attractive appearance or physical condition. The dynamic growth of organizations providing recreational services in Poland (i.e. fitness clubs, gyms, CrossFit rooms, etc.) is the answer to the growing interest in recreational activities. Poland is currently considered one of the most promising fitness markets in Europe. According to the Europe Active report, in 2016, there were as many as 100 fitness clubs in various countries in different sizes and with different service standards (Andruszkiewicz, 2015). Increasing competition in the recreational services market forces these organizations to apply the concept of marketing. Thanks to the application of this concept, organizations are able to

adapt to the ongoing changes in the market, be successful and develop over a long period of time (N.A, 2017).

In this article, as data collecting tool questionnaires were used. The questions were answered by persons who acted as managers in the clubs studied. The questionnaire consisted of 11 questions, including 4 closed questions, 1 open question and 6 semi-closed questions.

The aim of the paper is to analyse selected aspects of marketing actions of recreational organizations from the Silesian Voivodship. The following research problems were diagnosed: analysis of the marketing structure, directions of activity and development as well as the meaning and motives of using marketing of recreational organizations functioning in the Silesian Voivodship. The analysis and inference were based on the results of the authors' research, and a study was conducted on a group of 63 selected recreational organizations operating in the Silesian Voivodship in 2018.

Literature review

The sports and recreational service can be defined as any activity - profit or non-profit - carried out with a view to satisfying human needs in the area of: somatic development, maintenance and improvement of health, rehabilitation and physical activity, prestige and recognition as sports achievements, group stay and common experiencing emotions, actively spending free time in connection with physical exertion, perfecting the silhouette, beauty of movement, etc. (Sznajder, 2008). The wider concept than the service is a sport and recreational product, defined as a composition of services and material goods, the latter playing a complementary role (Perechuda, 2003). Physical recreation services are provided by non-profit organizations (public and non-governmental organizations) and profit organizations (business organizations) (see fig. 1).

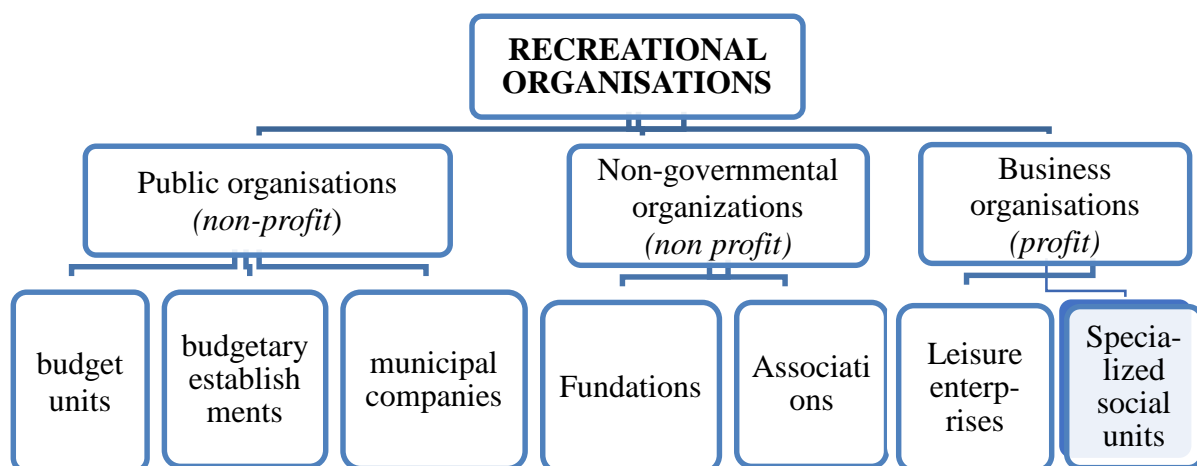


Figure 1 *Classification of recreational organizations* (own elaboration)

Examples of public organizations are: municipal or district centres, sports and recreation centres, cultural centres, youth palaces, Jordanian gardens, zones of family activity, and parks, including water parks, amusement parks, theme parks and skate parks. Non-governmental organizations are, for example: sports clubs, boy-scouts, religious associations of physical culture and physical culture associations, associations activating physically disabled persons and foundations active in the field of recreation.

The second group of organizations providing recreational services are business organizations (profit organisations). The most popular form of running a recreational company are fitness clubs and SPA centres. Business entities pursuing physical recreation goals also include specialized social units in enterprises (i.e. the human resources department, the social department or the HR department), in which programmes for the health of staff employed in them are created. These programmes operate under the names "health promotion in the workplace", "Corporate wellness" or "work-life balance".

All the above-mentioned organizations operating in the field of physical recreation differ among others in terms of objectives, sources of financing, scope of social control and the use of marketing activities (Izydorczyk, 2003). The dynamics of economic processes, in particular the growth of competition, forced the evolution of marketing development in recreational organizations. The modern approach of marketing refers to all forms of exchange between people and goes beyond typical commercial activities. The definition of marketing in contemporary terms is proposed by Kothler, describing marketing as a "social and managerial process, thanks to which a specific person and group will receive what they need and want to achieve by creating, offering and exchanging product values" (Gospodarek, 2008). According to this concept, the customer and his needs are the starting point, and therefore the task of marketing in recreational organizations is to satisfy the customer by fully satisfying his/her needs (Grzeganeck-Więcek, Kantyka, Hadzik, & Cieślowski, 2014). The complementary purpose of marketing activities is profit. It should be noted that non-prime organizations, despite the fact that they do not assume profit-making in their activities, are aware that in the conditions of a market economy, the possibility of achieving their goals depends on the income received (Kothler, 1999).

In marketing activities of recreational organizations, we observe the constant development of applied marketing concepts. It usually proceeds through the following stages: mass marketing stage, internal and external marketing phase, segmentation phase (varied marketing), individualized marketing stage, stage of relationship marketing and the stage of social marketing (Kotler, Roberto, & Lee, 2002). The first stage of marketing development is the so-called mass marketing. Marketing activities in recreational organizations at this stage consist in analysing

general trends in changes in the demand for their services and taking them into account in product offers. The organization strives to reach large groups of clients and thus achieves great benefits. By lowering the costs of providing services and marketing, these organizations are becoming competitively priced (Limański, 2007).

Human resources are becoming a factor of competitiveness amongst the organizations.

Internal marketing was created on this ground. Activities in internal marketing include the activities of the organization, aimed at training and motivating employees to better serve customers. The next stage of developing the concept of marketing in recreational organizations is the stage of external marketing. External marketing activities are directed to the market and concern market analysis and shaping of individual marketing mix instruments (product, price, pro- strength, distribution) (Maciąg & Kantyka, 2010). The next stage of marketing development is the segmentation stage (differentiated marketing in different ways), it is the result of the intensification of competition in the recreational market. Diversified marketing activities in organizations rely on pre-segmentation of the clients' market, using selected demographic, geographical, psychographic or behavioural criteria, then adapting marketing mix tools (i.e. product, price, promotion and distribution) and the needs of these customers.

The concept of personalized marketing was also introduced in the service activity. Actions personalized marketing consist in even more precise determination of the customer profile, so that marketing instruments and activities are better suited to the needs and requirements of a specific customer. The target market is an individual customer or one sub-segment in which there is usually little competition. Individualization of the offer allows maintaining long-term relationships with the client, which is the subject of the concept of relationship marketing (Ochoa Siguencia, Grodek-Szostak, & Zaucha, 2018). Relationship marketing relies on building, maintaining and developing long-term relationships between recreational organizations and clients in order to increase the level of satisfaction of their needs, thanks to which it is possible to transform them into loyal customers, and thus to increase profits over a long period of time (Panasiuk, 2006). The stage of social marketing is the application of marketing principles and techniques in organizations to influence the target group of addresses, to voluntarily adopt to a specific behaviour, reject it, modify it or give it up for the benefit of individual groups, people or society as a whole. This is mainly aimed at improving the quality of life (Sarnowski, 2010). It is about influencing such behaviours, which tend to include to: improve health, prevent injuries, protect the environment or carry out work for local communities (Zysko, 2006).

Summarising, it should be noted that the main factor triggering the specific implications for the development of marketing are changes taking place in the attitude of consumers.

Research approach and methods

The research presented in the paper is part of the research project no. RS/472/18 implemented in cooperation between Physical Education University in Katowice and the Military University of Land Forces in Wroclaw. The aim of the research is to analyse the marketing concepts used in recreational organizations from the Silesian Voivodship. In addition, a comparative method was used, based on which the differences and similarities in marketing concepts in profit and non-profit organizations were specified. The following research problems were diagnosed: analysis of the marketing structure, directions of activity and development as well as awareness and motives of applying the concept of marketing in the surveyed recreational organizations operating in the Silesian Voivodship. Surveys were conducted in 70 organizations, but 7 surveys did not meet formal requirements, which resulted in rejection. Finally, the analysis of the results was based on questionnaires from 63 recreational organizations, of which 35 were profit organizations, and 28 non-profit organizations from the Silesian Voivodship. Among non-profit organizations, up to 10 respondents indicated that they did not conduct any marketing activities. Therefore, only the answers identifying these organizations (i.e. the legal form, the phase of the organization's development cycle, the market's length, the size of the organization) were used to analyse the research results. Therefore, 18 questionnaires and 35 questionnaires from the profit organization were used to analyse the concept of marketing in non-profit organizations.

The vast majority of the surveyed recreational organizations had the following organizational and legal forms: limited liability company (23%), budgetary units (30%), associations (14%) and private enterprises natural person (12%), partnerships, limited partnership, partnership limited by shares, joint-stock company, civil, each accounted for 3% and the rest had a different legal form. Table 1 presents the forms of employment of employees in the surveyed recreational organizations.

Table 1 Forms of employment of employees in the recreational organizations

Type of recreational organization	Contract of employment	Contract of mandate	Trainees	Other terms of employment
<i>Profit organization</i>	43%	36%	1%	20%
<i>Non-profit organization</i>	66%	30%	1%	3%

Source: own elaboration based on own research

N=63

The average working time of the analysed organizations in the market was: for the profit organization 10 years, non-profit organization 21 years. As many as 54% of commercial organizations were currently in development, 33% in the stabilization and maturity phase, 5% in the business renewal phase, and 3% in the market entry phase and the same in the declining phase. Only 2% of the respondents indicated that it was difficult to determine at what phase of their life cycle their organization was. In the case of public and non-governmental organizations, the phase of the organization's development cycle was 36% development phase, 50% stabilization phase and maturity, as many as 14% were unable to determine the phase in which the organization was located .

The replies to the question of what documents contain the goals and plans for marketing activities in profit organizations were as follows: marketing plan (10 responses), marketing strategy (9 responses), business plan (6 responses), no documents (14 responses). However, in non-profit organizations, the most frequently cited responses were a lack of documents defining goals for the organization's marketing activity (10 responses), and only three organizations confirmed having a marketing strategy and marketing plan and having another document (2 responses)

When asked about the structure of marketing in profit organizations, the respondents replied that they were: marketing space (30%), tasks are outsourced (17%), other positions (45%, i.e. club / sport / gym manager), reception staff, facility manager, sports instructor), 8% of the respondents did not answer. In profit organizations, the marketing structure was created by personnel employed in various positions, i.e. manager of a club / sport / gym, reception employee, facility manager or sports instructor (72%), only 28% of organizations employed a marketing specialist.

Subsequent research results indicate that the most commonly used source of knowledge about marketing methods by profit organization managers were: participation in marketing training (17 responses) to familiarize with literature in the field of marketing (14 responses) and imitation of marketing activities of competitors (12 answers). The fact that 13 managers' answers concern the lack of such knowledge and the use of marketing activities intuitively is embarrassing. In the case of non-profit organizations, staff acquires knowledge by imitating marketing activities of competitors (10), participation in marketing trainings (8), familiarization with literature in the field of marketing, economic education (6 responses) and 2 organizations indicated that managers did not have such knowledge, and they used marketing and non- marketing activities.

The analysis of responses revealed that *profit* organizations mainly focused on the customer and his/her needs, or applied the concept of relationship marketing.

Marketing activities in the analysed organizations were focused on:

- creation and application of the product, price, promotion, distribution in accordance with the clients' needs (score 3.7),
- maintaining a positive relationship between the seller and the client who is treated as a partner (score 3.7),
- the largest possible sale of services to the mass market (for each customer) (score 3.6),
- distinguishing themselves on the market and then adjusting the offer to individual customer groups (score 3.6).

Non-profit organizations are characterized by the use of the concept of social marketing and the mass market, which is intended to make changes to customer attitudes associated with low levels of physical activity thanks to the quality of life of the population (4.0) and similar profit organizations, as they try to maintain a positive relationship with the seller; a customer who is treated like a partner (3,7).

Table 2 Marketing concepts in the recreational organization: average score (own elaboration based on own research)

Marketing concepts	Profit organizations	Non-profit organizations
Marketing activities aimed at the largest possible sale of services to the mass market (for each customer)	3.6	3.6
Marketing activities aimed at creating and applying a product, price, promotion, distribution in accordance with the needs of clients	3.7	2.8
Marketing activities aimed at distinguishing themselves in the market and then adapting the offer to particular customer groups	3.6	3.3
Marketing activities aimed at changing the attitudes of clients related to low level of physical activity due to this improvement of the quality of life of the society	3.3	4
Marketing activities aimed at maintaining a positive relationship between the seller and the customer who is treated as a partner	3.7	3.2
Marketing activities focused on the client who becomes an active co-creator of the products and services he/she uses	2.8	3.3
Marketing activities aimed at activating positive clients - advocates and using modern digital e-tools (creating own community in the network)	3.2	2.7
Marketing activities aimed at individualizing the offer for a single client	2.3	2.5
Marketing activities aimed at attracting, motivating and maintaining highly qualified employees and the organization of work to satisfy their needs and ambitions	3.2	3.1

The next question concerned the motives of applying the concept of marketing in the recreational organizations analysed. The respondents rated the

mentioned motives on a scale of 1 - a little motive theme, up to 5 - a very significant motive (Table 3)

Table 3 Themes of applying the concept of marketing in the recreational organizations - the average of grades (own elaboration based on own research)

Motives of marketing activities	Profit organizations	Non-profit organizations
Recognizing customer needs and responding to the needs	3.7	3.4
Keeping profit in a long period of time	3.7	2.6
Building a competitive advantage	3.9	3.2
Keeping up with the competition	3.3	3.6
Creation of the product according to the client's needs	3.8	3.4
Adjusting prices and their differentiation to the customer	3.2	3.4
Adjustment of sales channels for the customer	3.1	2.8
Creating the image of the company and the brand in the environment	4	3.2
Choosing the target market for customers	3.3	3.2
Giving the society a better quality of life, which will be compatible with caring for the natural environment	3.3	4.2

As can be seen from Table 3, the most-rated factors motivating the profit organizations to undertake marketing activities included: building a competitive advantage (score 3.9), creating a product according to customer needs (score 3.8), maintaining profit over a long period of time (score 3.7) and the recognition of customer needs and responding to them (score a 3.7). On the other hand, as the main motive for undertaking marketing activities, the non-profit organizations indicated: providing the society with a better quality of life, which would be consistent with caring for the natural environment (4.2) and keeping up with competition (3.6). The use of marketing in the organization depended to a large extent on the size of the budget that was allocated for this purpose. Therefore, the next question was whether the recreational organizations had a regular budget for marketing activities and what the percentage of annual income was. As many as 65% of the surveyed profit organizations did not have a regular budget for marketing activities. Only 22% had a regular budget for marketing activities and allocated about 5% of annual revenues to them. In the case of non-profit organisations, 78% had a regular but low budget for marketing activities and 22% had no regular budget for marketing activities.

Discussion and results

The analysis of the research results carried out above allows distinguishing the elements characterizing marketing activities in the *profit* and *non-profit organization* in the recreational services sector. As regards the organization of

profits, a general conclusion should be formulated that organizations attach importance to the implementation of the marketing concept. The elements which characterize marketing activities in profit organizations include:

- customer orientation – a buyer, a service offer by applying the relationship marketing concept,
- appreciating the role of intellectual capital (mainly in the aspect of human resources)
- employer care about the quality and development of staff who are aware of the needs of their own self-improvement,
- searching for modern marketing instruments aimed at more fully meeting the needs and expectations of clients,
- application of marketing activities in order to build competitive advantage of the organization,
- lack of formalized documents containing directions of marketing activities, both current and strategic,
- unstable and low budget for marketing activities.

With regard to non-profit organizations, their marketing activities were marginalized, as the research showed that up to 10 organizations out of 28 did not use any marketing concepts. The elements that characterize the concept of marketing in other non-profit organizations include:

- underestimation of intellectual capital (mainly in the aspect of human resources for the implementation of tasks in the field of marketing corresponded to cells and positions related to administrative activities, service facilities and sports activities),
- Customer focus and a mass product-buyer of the service offer through the use of the concept of social and mass marketing,
- low but stable budget for marketing activities,
- no formal documents containing directions of marketing activities, both current and strategic.

Recommendations

The research results presented in this paper and the considerations based on them allow formulating a general conclusion that profit organizations and non-profit organizations operated in the common market of recreational services, had a similar phase of the organization life cycle, achieved similar goals in recreation, offered similar services and managed them to the same customers.

However, the nature of ownership and the organizational and legal form determined the model of the application of the concept of marketing in these organizations.

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BUSINESS MODEL COMPLEMENTARITY AND THE FACTORS THAT DETERMINE IT IN TOURISM BUSINESS FORMATIONS: THE THEORETICAL ASPECT

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Abstract. *In order to reveal the complementarity of business models, the factors that determine it in incoming tourism, and to prepare the conceptual model, the following discussion questions should be answered (the research problem is formulated by presenting questions in theoretical context): what is a business model and its structure?; what is business model complementarity?; what traits and identification characteristics are characteristic of it?; what factors determine business model complementarity in incoming tourism? The aim of the research – theoretically substantiate the traits and characteristics of business model complementarity and the factors that determine it in incoming tourism by preparing a conceptual model. Research methods: systematic analysis of scientific literature, comparative analysis. The key results of the research: the concepts and structures of a business model, complementarity and business model complementarity are defined by systematising conceptual insights, interorganizational relations and complementarity; according to the systemic point of view that explains the result of the interaction between an incoming tourism company business model and its structural elements, the conceptual model of business model complementarity and the factors that determine it in incoming tourism, are presented.*

Keywords: *business model, complementarity, incoming tourism.*

Introduction

The complementarities perspective is not itself a theory of organizational design or performance but rather an approach to help researchers to understand relational phenomena and how the relationships between parts of a system create more value than individual elements of the system (Ennen & Richter, 2010). This approach helps to enrich understanding of how different practices and strategies are combined and recombined, and how such combinations shape subsequent performance (Ballot, Fakhfakh, Galia, & Salter, 2011).

The phenomenon of business model complementarity, as the research object, only begins to find its place in the scientific discussions. Fragmented researching

of a business model or its element complementarity and the existing variety of definitions do not reveal the individuality of the complementarity phenomenon. The analysis of information sources on the management sciences allow us to state that research on business model complementarity is performed only fragmentarily and passively, and the complementarity itself is deemed a somewhat new object of research (Ennen & Richter, 2010; Schallmo & Brecht, 2010; Wirtz, Pistoia, Ullrich, & Göttel, 2015). The research that would examine the factors that determine the business model complementarity, identify the nature, intensity, orientation, and identification, is missed.

The research problem is formulated by presenting questions in theoretical context: what is a business model and its structure?; what is business model complementarity?; what traits and identification characteristics are characteristic of it?; what factors determine business model complementarity in incoming tourism?

The object of the research – business model complementarity and the factors that determine it.

The aim of the research – theoretically substantiate the traits and characteristics of business model complementarity and the factors that determine it in incoming tourism by preparing a conceptual model.

Tasks of the research:

1. To reveal the concept and structure of a business model;
2. To analyse the concept of business model complementarity and the factors that determine it in tourism business;
3. To present and describe the conceptual model of business model complementarity and of the factors that determine it in incoming tourism business.

Research methods: systematic analysis of scientific literature, comparative analysis. The analysis of scientific literature covered the search for theoretical and empirical scientific research papers and their content analysis in the following scientific databases: “EBSCO Publishing”, “Emerald Management eJournals Collection”, “Taylor & Francis Group”, “Scencedirect”, others. The papers were selected according to the keywords: business model, complementarity, interorganizational ties, cooperation of business models, partnerships of business models, strategic choices, inbound tourism. The search selected papers that were of a conceptual nature and reflected some interaction between business elements and related to the discipline of management science for analysis. The analysed sources of scientific literature are included in the literature list.

Concept of business model and its components

The concept of business model (BM) has become a global object that is constantly analysed by scientists and practitioners, it helps to strengthen the creation of value and directly affects the competitiveness of companies. In the recent years, the definition of business model (BM) in the global works of management science is usually explained as: cooperation of suppliers, clients and partners; certain business logic; creation of an offer of a new value; measure for the development of entrepreneurship when creating innovations, etc. (Zott, Amit, & Massa, 2011; Wirtz et al., 2015). Therefore, the author of this paper defines a business model as: a measure that helps to create a new value by uniting important elements inside and outside the company; a tool to identify and analyse the strategic choices of the company; and as a "frame" or a platform to analyse company relations, activities and their capabilities. The business model concept and its peculiarities are revealed in detail during the analysis of the business model structure and the elements that comprise it (Kinderis, 2018).

Structure of a business model is an integral part of the business model concept, this part in the scientific discussion and empiric works is usually presented as a certain set of elements (Osterwalder & Pigneur, 2010) that allow us to express business logic and the specifics of company activity, as well as to set their mutual relations in the system of business. The aforementioned scientists identify 4 blocks of business model structural elements and 9 elements that comprise them: product (value offers); consumer (consumer segment, distribution/presentation channels, relations with consumers); infrastructure and its management (essential partnerships, capacities: main resources, abilities, essential activities – value configuration); financial aspects (cost structure, income flows). The exclusion of the business model structure helps to clarify and show the interdependence and interaction of model elements, creating a new value for stakeholders.

Business model complementarity and the factors that determine it in tourism business formations

According to Chesbrough (2010), Grandori and Furnari (2009), as well as Wirtz et al. (2015), one of the most important premises of business development in the tense and rapidly changing modern business environment is business model or their element interaction and its result – complementarity. Complementarity is a result of an interaction of homogeneous or heterogeneous units when mutual relations of individual units and their evolution create higher value than their separate functioning (Lokshin, Belderbos, & Carree, 2008; Grandori & Furnari, 2009).

Complementarity is characterized by two-way orientation (symmetric interaction and its outcome), though the intensity of the direction depends on the importance of the particular unit. Complementarity may be due to the similarities or differences between the units of interaction. Porter and Siggelkow (2008) and Cavaco and Crifo (2014) have identified in their work that if two organizations with very similar business elements can achieve economies of scale and greater market power, they may not be able to create a synergy effect. Conversely, by integrating different business elements, synergy capability is much higher. Thus, complementarity can have similar or different elements: strategic choices (key choices for companies in pursuit of strategic goals), business elements and tools (business model structure elements: resources, partners, activities, users, value propositions, distribution channels, customer relationships, cost and revenue). The more these elements and the more intensive interactions between different companies there are, the greater the chances of complementarity arise (Ennen & Richter, 2010). The works of Grandori and Furnari (2009) distinguish two types of complementarity, depending on the interrelationship between the elements of the interaction or the differences: symbiotic complementarity and pooled complementarity. Symbiotic complementarity occurs when value added is created by interacting with different elements, and pooled complementarity occurs when value added is created by interacting with similar elements. This classification of complementary of the scientists complements the statement that complementarity arises due to certain existing differences or similarities, and this shows its nature. In the paper, the complementarity of business models is analysed on a micro level, which reflects the result of interaction between two or more enterprises based on the logic of systemicity in inbound tourism. Micro-level complementarity occurs when two or more companies combine their activities, resources, and other business elements with a common, new and better possible outcome that cannot be achieved by acting alone or by eliminating existing shortcomings.

Complementarity is derived from the concept of the interaction result and is based on the access to theories on business models, interorganizational relations (business combination formation). The author analysed the scientific literature on the most typical types of tourism business combinations: tourism alliances and tourism clusters (Kavusana, Noorderhavenb, & Duysters, 2016; Lee, Wall, & Kovacs, 2015; Fundeanua, 2015), in order to further reveal the complementarity of business models for business, its recognition features and determinants. Summarizing the analysis of the scientific literature on business combinations - tourism alliances and clusters, it can be noted that these are the associations of organizations formed on the basis of a certain formal and informal interaction result based on mutual benefit - the implementation of strategic goals that cannot be achieved by any party acting separately. This interaction is considered to be complementary, which results in a new value generated.

The complementarity of business models is the result of the interaction between business model structure elements when their business models or individual elements of these models reinforce/highlight each other's advantages or reduce/eliminate disadvantages and, at the same time, create higher value than acting individually. The business models complementarity is attributed to certain traits and features of recognition. Complementary business models, due to their similarities and interactions, create a complex, adaptive business system. The complementarity of business models forms a specific social and economic value generation configuration across the business system (Porter & Siggelkow, 2008; Ennen & Richter, 2010; Cavaco & Crifo, 2014).

The analysis of the scientific literature has allowed us to distinguish features (situations) of complementarities of business models: obvious changes in a specific business activity or business model (increased value proposition, increased number of users), greater coherence between the activities of cooperating companies and their business models (configuration of activities, improved customer availability, consumer relations, more efficient use of resources, increased operational efficiency), faster application of innovations in activities (higher decision-making speed and higher competence). The characteristics (intensity, orientation, character in the context of strategic choices) and the recognition features depend on the size of the company, the company's dependence on a particular sector, the specificity of the sector, the orientation, type of business model, etc.

The complementarity of business models is the result of the interaction between the elements of corporate business modelling, so it is important to identify the factors that determine the emergence of complementarity because knowing them can accelerate the interaction process (Porter & Siggelkow, 2008; Ennen & Richter, 2010; Cavaco & Crifo, 2014). After analysing the works of researchers (Buhalis & Law, 2008; March & Wilkinson, 2009) it can be argued that the complementarity of business models is influenced by changes in the external environment (technological, political-legal, socio-cultural, economic and natural-ecological - external factors) and changes in the internal structure of the organization (organizational, management, economic-financial, human, cultural, physical-technological - internal factors).

Conceptual model of business model complementarity in incoming tourism

After performing the analysis of the scientific literature, it can be stated that incoming tourism as a sub-system of the tourism business system is also defined as a value creation system, including a totality of relations and connections among tourism sector entities that merge into formations of the respective form of cooperation and create distinctive tourism products in different geographic

regions. Usually the companies of tourism business that are operating in incoming tourism try to operate independently and tend to cooperate more only if they are faced with challenges (threats or possibilities), and combine their business models, e. g., the company that is providing travel planning and organization services cooperates with the company that provides transportation services, etc. (Baggio, Scott, & Cooper, 2010; Buhalis & Foerste, 2015). If the aforementioned cooperation is mutually beneficial, then it can be said that certain interaction of activities exists: more resources are mobilised, business logic is changed, new market segments are looked for, financially useless activities are dropped, etc. Therefore, mutual interaction of tourism companies in incoming tourism is possible between certain elements of business model structure and depends on the business situation and the business expansion needs of the companies themselves (Casadesus-Mansell & Ricart, 2010; and Wirtz et al., 2015). Strategic choices are the best solutions (alternatives) to achieve strategic objectives, which also indicate certain "limits" of the business model and affect the interaction of their elements in incoming tourism. Strategic choices relate to alternatives to solutions in all the structural elements of the business model (Casadesus-Masanell & Ricart, 2010; Haubro, Lomholt, Lueg, Nielsen, & Knudsen, 2015). Also certain strategic choices and the groups thereof appear in each structural element of the incoming tourism business model: the element – essential resources – is characterised by a strategic choice between physical resources and human, intellectual resources; the element – essential activities – is characterised by a strategic choice among marketing, sales network management and product creation, as well as assurance of its quality; the element – essential partnerships – is characterised by a strategic choice between cooperation for the elimination of deficiencies and failures and cooperation for the identification and reinforcement of advantages; the element – value proposition – is characterised by a strategic choice between the price, accessibility, economy and massification of the value proposition and an individualised, exceptional unique value proposition; the element – consumer segment – is characterised by a strategic choice between mass consumers and increase of sales volumes, as well as individual consumers, orientated at the exceptional value of the product; the element – distribution channel – is characterised by a strategic choice between indirect and direct sales channels and between IT channels and direct personal channels; the element – relations with consumers – is characterised by a strategic choice between non-repeating transactions (location of more new consumers) and repeating transactions (retention of current consumers); the element – cost structure – is characterised by a strategic choice between cost minimisation and the assurance of the value and uniqueness; the element – income flows – is characterised by a strategic choice between the emphasis on the income from the direct activity and the emphasis on the income generation from auxiliary and complementary activities

(Kracht & Wang, 2010; Granados, Gupta, & Kauffman, 2012; Bethapudi, 2013; Buhalis & Foerste, 2015).

The author of the paper, based on the systematic approach and the analysis of the scientific literature, presents a conceptual model of complementarity of business models and its determinants in inbound tourism (Fig. 1).

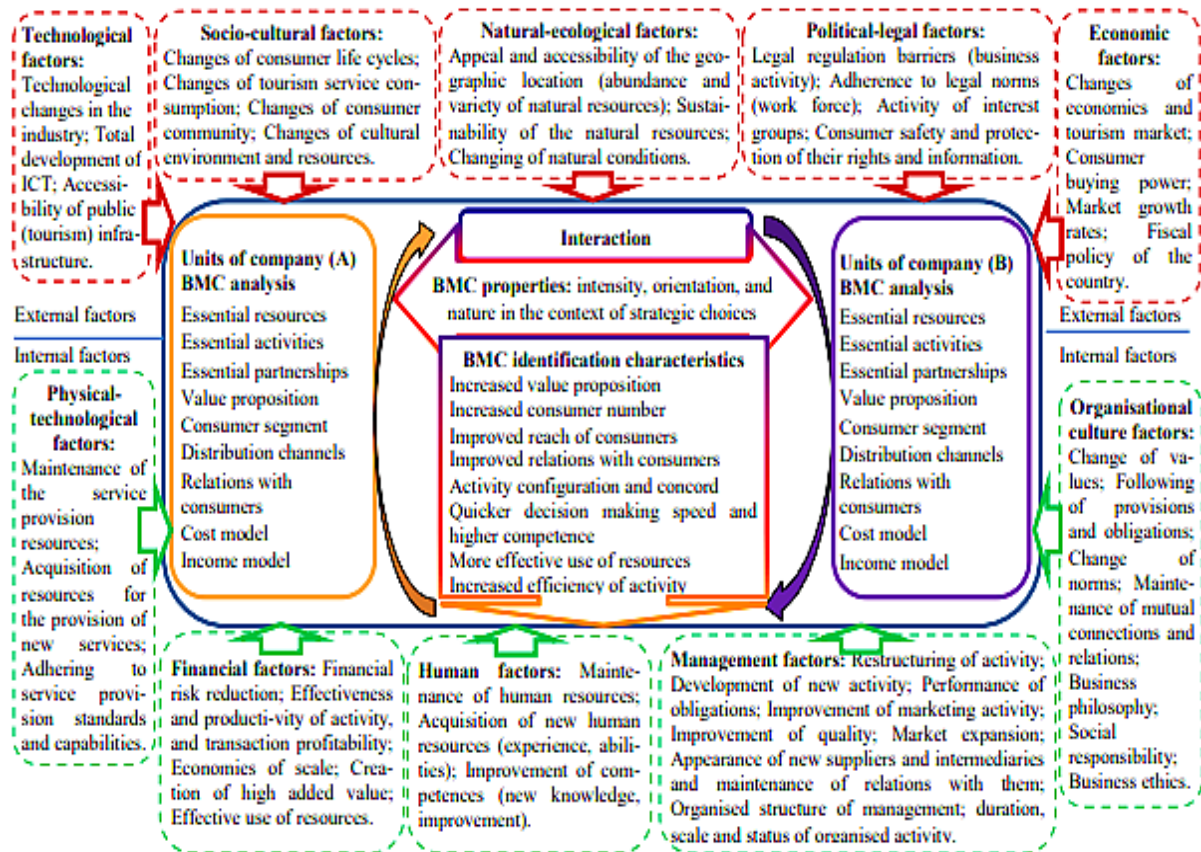


Figure 1 Conceptual model of business model complementarity (BMC) and of the factors that determine it in incoming tourism (Kinderis, 2018)

In the first (central) part of the model nine elements of company business models are discerned, in the dissertation they are equated to the analysis units of the company business model complementarity (BMC). Since the complementarity of company business models is researched at the same time, but only between two companies, therefore two companies "A" and "B" are displayed in the model. The result of an interaction between two structural elements (BMC analysis units) of company business models is deemed to be complementarity that is characterised by certain intensity (very weak, weak, medium, strong and very strong) and orientation (monodirectional, mutual directional) and acquires a certain nature (complementarity due to similarities or differences: "symbiotic", "accumulative") in the context of the earlier discerned strategic choices.

Also the BMC identification characteristics are presented in the conceptual model, these characteristics allow us to ascertain complementarity between business models of researched companies: increased value proposition, increased number of consumers, improved reach of consumers, improved relations with consumers, activity configuration and concord, quicker decision making and higher competence, more effective use of resources, increased economy of activity.

Part of this model is prepared according to the obtained findings by analysing the concepts of business model complementarity, theory on interorganizational connections and potential premises of complementarity in incoming tourism that are discussed in it (Dyer & Singh, 1998; Osterwalder & Pigneur, 2010; Casadesus-Mansell & Ricart, 2010; Schallmo & Brecht, 2010; Ennen & Richter, 2010; Wirtz et al., 2015). In the presented model nine groups of strategic choices are discerned – one or two choices in each element/interaction unit of business model structure.

In the second part of the presented model two factor groups of are discerned, they determine the complementarity of business models for incoming tourism companies: internal and external factors. This section of the model is prepared by taking into consideration the obtained findings and analysing the theory on business models and interorganizational relations (tourism alliances, tourism clusters), and the structure of incoming tourism. The author of the dissertation decided to present the following classification of factors that were discerned in the theoretical discussion, taking into consideration recommendations provided in the works of scientists: Ritchie (2004), Buhalis and Law (2008), Kracht and Wang (2010) and Eungblut (2011). The group of external factors is comprised of: technological, socio-cultural, natural-ecological, political-legal and economic factors, and the group of internal factors is comprised of: economic-financial, human, physical-technological, management, organizational culture, and the size and status of the company. The aforementioned factors affect business models, their activity and interaction in incoming tourism in one way or another. The discerned factors can disrupt, alter or promote the occurrence of complementarity in incoming tourism.

Conclusion

1. A business model is described more like a logical structure of actions and elements that helps to create a new value; a tool for the identification of strategic choices of the organization and the analysis of the relations of companies, activities and their capabilities. Business model structure is an integral part of the business model concept that in the scientific discussion and empiric works is usually presented as a set of certain elements: value

proposition, consumer segment, distribution channels, relations with consumers, essential partnerships, main capabilities and resources, essential activities, cost structure and income flows. This structure of the business model allows us to express the business logic and reflect the specifics of the company activity in the best way.

2. Companies that form functioning partnerships usually already have their certain (basic) complementarity that is considered to be the result of interaction between the elements of company business model structure, where their business models or individual elements of these models strengthen/emphasize advantages of each other or reduce/eliminate disadvantages and together create higher value than when functioning individually. Complementary business models create a complex adaptive business system due to the interaction of their similarities and differences, and form a distinctive configuration for the generating of the social and economic value. Certain properties are characteristic of business model complementarity in the context of strategic choices (nature, orientation and intensity) and the characteristics of identification. Business model complementarity is affected by changes in the external environment – external factors –, as well as by the internal environments of the organization – internal factors.
3. The aforementioned model is comprised of three main components: analysis units of business model complementarity – business model elements; a system of company business model complementarity criteria that helps to determine certain characteristics of complementarity in the context of strategic choices and characteristics of identification; as well as external and internal factors that determine the complementarity of company business models.

The first component of the model – business model analysis units – is comprised of: essential resources, essential activities, essential partnerships, value proposition, the consumer segment, distribution channels, relations with consumers, the cost model and the income model. Analysis (interaction) units are a premise and at the same time a field for the manifestation of complementarity between different company business models in incoming tourism.

The second component of the model is comprised of the characteristics of company business model complementarity: intensity (very weak, weak, average, strong and very strong), orientation (monodirectional, bidirectional), a nature ("symbiotic" and "accumulative") in the context of strategic choices and the characteristics of identification (increased value proposition, increased number of consumers, improved reach of consumers, improved relations with consumers, activity configuration and concord, faster decision making and higher competence, more effective use of resources, increased economy of activity).

The third element of the model is comprised of the factors that determine the complementarity of company business models in incoming tourism. Two groups of factors are discerned: internal and external factors. The group of external factors is comprised of: technological, socio-cultural, natural-ecological, political-legal and economic factors, and the group of internal factors is comprised of: economic-financial, human, physical-technological, management, organizational culture, as well as the size and status of the company.

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CRIMINOLOGICAL ASPECTS OF FAMILY RELATIONS

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Abstract. *The dynamic variability of the modern world determines not only the need to adapt but also the ability to preserve and maintain the values of separate culture. Over the centuries, family is considered to be one of the core values. Family interaction with the society is undeniable. The family is the foundation of any society and the future of the state. Today's new socio-economic situation has an impact on the emotional atmosphere, quality and relationships within the family. Criminological research in family relationships is a complex problem, its environment and circumstances are an important factor in the individual's socialization. The role of the family is equally important both in the process of proper behavioural shaping and in the production of directed behaviour. The article provides an insight into the content of the studies of family criminology.*

The aim of the article is to describe the criminological framework of family relations based on special literature, research and practice showing the framework of family criminology. Theoretical guidelines, special literature, views and opinions of Latvian and foreign specialists have been analysed in order to assess the criminological aspects of the phenomenon.

The author concludes that the knowledge of family criminology is useful, effective, concrete and practically feasible for the criminological studies of the family institute. This approach has a multi-sectoral nature.

Keywords: *family, family criminology, role of family.*

Introduction

Family is important because the human personality is developed in it. It is a particular objectively determined environment where its own value and education system exists. Healthy functional family can effectively prevent possible violations, but disadvantaged family can promote criminal offences. It is necessary to explore the impact of this social institute on the process of formation and development of crime and crime itself. Many family factors are predictors and possible causes of children's delinquency. And many family-based interventions are effective in preventing and reducing children's delinquency (Farrington & Welsh, 2007, 4).

Nowadays, a new socio – economic situation affects emotional atmosphere, family quality and relations. Family is considered to be one of the key institutes of the society. According to the Article 26 of Law on the Protection of Children`s

Rights, the family is the natural environment for the development and growth of a child (Bērnū tiesību aizsardzības likums, 1998). This social institute is worth the study. Family relations, social everyday relations, formation of personality, deviation and criminal offences are analysed in the studies of several branches: sociology, pedagogy, psychology and criminology. Victimological studies confirm that a person often becomes a victim of a criminal offence in close relations. The research shows that families at social risk are characterized by a variety of problems - poverty, alcohol abuse, violence, unemployment, poor housing and other. Most of the problems are related to poor basic skills or lack of them, also to lack of motivation to change (Dobelniece, Millere, & Salmane-Kulikovska, 2015).

The results of several studies allow the author to make a conclusion that the number of victims of domestic violence in Latvia is increasing. The results gained in the research "Safety and security of persons in Latvia" allow concluding that the particular and essential problem of a person's safety and security is domestic emotional and physical violence. It most commonly affects women – approximately a quarter of them indicate that they are afraid of domestic emotional violence". Domestic violence is the violence area of violence which is taking place "behind closed doors", – it is hidden from everyone's sight (Ball, Culler, & Lilly, 2015, 10). Violence in the family can happen regardless of the wealth or education level, there is no great difference between violence in the cities and rural areas, between the poor and the rich. Not only children, women, old people and people with disabilities suffer from violence, but also men. Criminal offences are mainly stated to occur in family relations with a low level of morality because family morality is closely linked with the level of education and culture, with other factors. Of course, one cannot deny that common social and moral degradation is of great importance. One of the problems is violence in financially supported families. Violence of such type stays hidden from others. Domestic violence is the offence of special type, it is 1) repeated violence; 2) there are special relations (relationship intimacy) between victims and perpetrators; 3) both share an emotional and often financial dependence (Kipāne, 2015, 101).

There is a special criminological research field abroad – family criminology.

The aim of the article is to describe the criminological framework of family relations based on special literature, research and practice showing the framework of family criminology. The analysis of special literature, studies and practice will allow for proper knowledge and understanding of the framework of family criminology. The following scientific research methods were used in the studies: content analysis, analytical, inductive and deductive approach.

The role of family in the development and formation of an individual's personality is undeniable. It is important to specify that criminal behaviour

involves the interaction of a complex of several elements at the micro-level and macro-level, as well as life-long individual, social and ecological factors life-long (Taylor, 2013, 101).

The scientific novelty of the studies is linked to the fact that the problems of family relations in criminology have not been widely analysed in Latvia so far. By collecting the materials from special literature, studies and practice the author will mark the framework of family criminology.

Concepts of family

Family as a part of a larger system is the cultural element and state basis. The Constitution stipulates that the state protects and supports marriage – a union between a man and a woman, family, rights of parents and children (Latvijas Republikas Satversme, 1993). It is stated that only family is the pledge of each nation's existence. It promotes the functioning of society as a whole. The idea of this social institution is linked to human existence, to the biological, social, psychological, mental and cultural dimensions. The needs of the family are divided into the following levels of satisfaction: 1) existence needs; 2) needs for security and safety; 3) social needs; 4) needs for dignity and honour; 5) needs for development (Škapars, 2010).

Different explanations of the concept "family" can be found in specialized literature. Family is considered to be one of the core institutions in a person's socialisation process. In the sociology, family is evaluated as a historically specific system of mutual relations among spouses, parents and children. This is a small group, the members of which are linked by marriage or other relationship, a common mode of life and mutual moral responsibility, whose social necessity is determined by the community need to reproduce physically and mentally able-bodied people. The professor of the University of Latvia, Arija Karpova (*Ārija Karpova*), writes that family is a historically changing institution, a subject of mutual relations and uniqueness, a system, a social group, a social cell. In the family psychology, family is systematically researched as a historically social institution, a social group, a subject of mutual relations and a system (Karpova, 2006, 27). Family traditionally consists of spouses and their child or children in an undivided household. The dominant form of the family is a nuclear family of two adults and one or more children who may be or may not be the offspring of the adults. Social anthropologist Klavs Sedlenieks (*Klāvs Sedlenieks*) indicated in the discussions about the modern family that if there are particular economic conditions, families make the alliances – an extended family is formed where several generations are living together because it is easier to survive and there is economic justification of it (TVNET, 2016). The extended family consists of two or more basic families that are unified by the parents,

children or brother and sister relations (Girgensone & Mihailovs, 2016, 147). A parent who is bringing up his/her child or children is also to be considered as family. Data about social processes in Latvia indicate that almost every third family is incomplete, with where only one of the parents and a child or children is (Bērnī Latvijā, 2013). However, a transnational family is a family separated for a certain period of time and of divorced from welfare and/or upbringing of children across national borders (Broka, Kūle, & Kūla, 2014, 28).

In the Latvian legal system, the concept of family, its reference, explanations and interpretation depend on the legal branch. The Family state policy guidelines for the years 2011-2017 acknowledge that the lack of understanding of the uniform concept “family” makes application of uniform laws and regulation by different specialists difficult and is a subject of various interpretations (Ģimenes valsts politikas..., 2011). The author believes that the biological, psychological, social and legal component, for example, a common household, common family life, financial and psychological connections, should be united in the concept of family. The author emphasises that family is a biological, economic, legal and social unit. The author explains the family institution in a wider legal sense – an officially registered marriage (registered relations), unregistered partner relations – the actual marriage; sometimes family relations that ended, but threats are going on and they are linked to former relations; guardianship and care of a child by one parent; of the child; a common household of adult relatives.

Family as a research direction of criminology

Criminalization of family relationships (formation of an offender) and victimization (formation of a victim) can be described as an interaction process where the conflicts take the central place. A scientifically right the statement is that the role of family is of importance both in the formation process of behaviour and in production of changed behaviour. In the family relationships, an offender and a victim are closely connected to each other, they have a lot in common; their relationships can be named as “mutually complementary relationships” (Криминология – XX век, 2000, глава 9).

The professor of Liverpool University Sandra Walklate, writes that alongside the changes of the family institution, the role of family in criminological studies has become greater. Four problematic family groups can be distinguished from the point of view of criminology regarding the affect on promoting factors of deviant behaviour: 1) divorced or disruptive family; 2) families with strains and pressure; 3) families with care problems of parents; 4) families with a person with the tendencies to be violent (Walklate, 2007, 50). Russian professor Dmitry Shestakov (*Дмитрий Анатольевич Шестаков*) indicates that „family criminology or criminal family science is the branch of

criminology that studies the impact of the family on criminal behaviour and crime. The great attention is devoted to internal family problems and it distinguishes a particular offence – domestic violence” (Илецтаков, 2003, 94).

Family is the first and main example for the moral development of a child, forming its value system and behaviour models: it means that the development of social norms starts in the family. The impact of the type of family (at the simple level, a complete and incomplete family) on the psychological and socially psychological climate of the development environment of formation of a child’s (later a teenager’s) personality is important in the family (Kristapsons, 2005, 148-149.) In addition, the link between violence experienced and criminal records should be taken into consideration in the future. The studies reveal that “a great deal of adults, who were imprisoned because of committing violent criminal offences grew up in the families where violence happened. The same, mothers of some children who suffer from violence, have also suffered from cruelty. It approves that domestic violence against a woman promotes cruelty against children (Ja tu ciet no partnera..., 2007, 6). Relationships in the family can affect conditions at school; they are connected with the psychologically emotional condition of a pupil. Of course, the single-parent family status and the resulting consequences can impair it. Relationships with parents affect the emotional state of young people. Thus, the specifics of behaviour are also affected by their relationships with their parents. For example, the following results of a study can be mentioned:

- Their relationships with parents 81.8% of pupils evaluated as good, 10.6% as neutral, 7.6% as bad.
- Comparing the responses of young people from complete and incomplete families regarding this question, it can be concluded that there are essential differences in the evaluation given by pupils.
- Relationships with the parents children of complete families evaluated as good in 84.1% of cases; children from incomplete families – 75.4%; as bad 6.8% and 9.1%; as neutral – 8.6% and 19.9%. It indicates that the environment of an incomplete family badly influences relationships with the parents. There are statistically significant differences between pupils of complete families and incomplete families regarding the experience of using narcotic substances. The children of incomplete families are often using drugs (Kristapsons, 2005, 160).

To some extent the family is the model of an individual’s relationships with society because the family fulfils the socialization function, it means the human adaption to the life in the society.

Taking into considerations the data obtained in Latvia, it can be concluded that the children have different attitudes to the conflicts in the family – 45% of

children take them very hard, 23 % just take them hard, but 32% got used to them and became indifferent to them (Ceplis, Liepiņa, Prišpetjeva, Sūniņa, & Vilks, 2001, 37). Multidisciplinary studies approve that the origins of delinquent behaviour are always to be searched for in the family, in the conditions a child is grown up. Several studies approve the link between criminal experience of the parents and its impact on a child. In the family where the parents have a criminal past, there is a higher probability for criminal behaviour of a child in comparison with the family without a criminal past. Analysing the past of 4271 convicted men and of their 6992 children and of 717 non-convicted persons and their 1133 children, the Dutch researchers Marieke van der Rakt, Paul Nieuwbeerta, Nan Dirk De Graaf stated that children, whose fathers had a continuous criminal past and criminal records often became criminals (Van de Rakt, Nieuwbeerta, & de Graaf, 2008).

In a study report on young people's bad experience gained in the childhood, it has been acknowledged that directly or indirectly deficiencies in the household/family and dysfunction can cause negative psychologically social consequences and negative health consequences in a long term. The life of a child in the family where one member of the family is an alcoholic, addicted to drugs, mentally ill or is or was in imprisonment, negatively affects the life of the child. For example, children who live in the families that are addicted to usage of any substances, have a higher level of aggression; they are hyperactive, impulsive, not calm, and as well as there is a higher rate of juvenile crime. These children have difficulties in self-determination in comparison with those children who have not had such a family history. It is similar in the situations where a child is growing up in the family where violation is spread, or his/her parents do not live together or are in divorced. The studies show that there is a high risk for such children to get involved in offences, in usage of addictive substances, not attending the school and there are problems in mutual relationships (Pētījums par Latvijas jauniešu..., 2012).

Evaluating the modern negatives, it can be concluded that more than usual a clear and open understanding in the family and support of the parents is needed. The importance of the role of the family, especially regarding to the minors, is obvious. If children do not feel understood in the family, they tend to refuse the awareness of their values to be recognized among peers, they commit deviant actions. Undoubtedly, by increasing the role of the family in the society, it is also possible to promote it in the society and stimulate its independence and stability.

Modern theories about relationships between disruptive families and offences can be divided into three categories:

Trauma theory acknowledges that the lack of interaction and care of the parents has a negative impact on a child mostly because there has not been sufficient parental attention and support.

The Life course theories pays attention to the consequences of the divorce of parents, impact of negative events, consequences of negative experiences and stress, for example, the conflict of the parents, loss of the parents, unfavourable economic conditions, and changes in the parental upbringing etc.

Selection theory says that family risk factors, for example, the conflicts of the parents, criminal or antisocial parents, low family incomes or bad educational methods, have a bad impact on a child (Dressler, 2002).

The following issues are studied in the framework of family criminology: 1) Criminal offences against family members where the violent offences against the spouses and child murders are mostly studied; 2) The impact of the family on juvenile crime; 3) The impact of the family on the development of an offender who commits the crimes because of mercenary motives; 4) The impact of the family on the formation of a violent offender; 5) The impact of the family on crime relapses; 6) The family causes that affect masses – crime; 7) Prevention of crime affecting directly the structure of the family (Криминология – XX век, 2000, 354).

In addition, family criminology provides making the feedback between family and crime open, for example, how it affects family relationships. The author considers that family criminology could be the branch of criminology that studies the impact of the family institution on criminal behaviour and on crime. Family criminology includes the scientific characterization of the family institution and explanation of crime that is linked to the family environment. It is the study of criminological nature of the family and the impact of the family on evaluation of criminal behaviours, as well as the impact of the family as one of the basic social institutions impact on the crime prevention (Shestakov, 1999, 157-158).

The author indicates that multidisciplinary studies (criminology, psychology, pedagogy etc.) allow exploring the phenomenon of the family, studying relationships, diversity, conflicts and giving proposals for organising activities and events aimed at offering the rehabilitation of victims and violators and offering various assistance and any information in the field of prevention. For example, experience built up over 20 years confirms theoretical knowledge about the transfer of behavioural models from generation to generation and the impact of experience in the childhood on behaviour, action and further choices. In this context, early level interference programmes are of importance.

The important movements of theoretical family research are:

Interactionism – the family is considered as relatively closed system that is weakly linked to other institutions. The interaction of family members with different statuses is researched, as well as the performance of the role of the family and family conflicts.

Structural functionalism – the family is considered as a specific system that

consists of individuals with certain statuses and roles. The family structure, its functions are analysed.

Situational – the main attention is paid to the norms and values in the system of family relationships. They (norms and values) are considered as a family situation that determines the functioning of the different types of families.

Institutional – the family is considered as one of the fundamental institutions of the society. It is stated that the role of social institution is declining. Several functions are getting more and more delegated to the society (education and upbringing, social control etc.).

Evolutionary – the family is viewed from the point of view of its development. Particular attention is paid to the evolution of family life needs and aims, samples of behaviour, social roles of family members (Mūrnieks, 2003, 42).

On the basis of the levels of family relationship functions, the author can distinguish several types of family:

1. Healthy family. Family psychotherapist Florence W. Kaslow pointed out the following features of a healthy family: clear and particular structure; distributed roles and responsibility; respect for private life and needs of each family member; openness and readiness for development and changes; clear and appropriate boundaries between generations (Kaslow, 1981).
2. Functional family – acting as a whole and in accordance with its social meaning. The actions of each family member focus on the family as a uniform social system where each member of the family agrees with implementing a particular function to achieve common aims (Sociālā darba..., 2000, 61).
3. Midrange family;
4. Dysfunctional family – a weakly functioning family that is not able to satisfy the basic needs of a particular individual concerning both the individualisation and separation, and intimacy. Three types of family dysfunctions are distinguished in social work – the lack of functions needed, a wrong function and a conflict of functions (Alternatīvas cietumam: darbs..., 2003, 52).
5. Criminogenic family. The causes of the conflict are general and individual. The concept of criminogenic family includes: at the general social level – contradiction of the marriage institution; at the level of direct interaction – family dissocialization and family conflicts; at an individual level – a criminogenic situation in the family (Шестakov, 1980, 63-64).

Families at social risk are different, because there are a lot of social risks factors, which might cause undesirable effects on human health, the social environmental, activities (Vaitiekus & Šakalyte 2016, 403). Unsolved and

unattended family problems are sharpening the existent problems and create multispectral problems. In the criminological study where the legal and social protection of child victims is explored, it is concluded that the “number of children – victims increases with the number of disadvantageous families, but society, as the respondents of the survey state, does not understand the seriousness of the situation and often blames the victims or stay indifferent. The children, however, develop more rapidly, try to learn the new, even dangerous for them (especially – drugs), in addition, aggressive behaviour style, which has become the trend” (Bērnū–noziedzīgo nodarījumu..., 2002, 14). Stress factors for the family can be poverty; violence; family conflicts; divorce; shattered families etc. Economic security is of importance, the life in poverty is often linked to the so-called risk behaviour – consumption of psychoactive substances (tobacco, alcohol), depression, antisocial behaviour and crime -, to the risk of consuming of unsafe food and a spectrum of somatic health problems (Par Sabiedrības veselības..., 2011).

According to incomes, families is divided into poor families and families with low incomes. Giving the characteristics of poor families, the experts divide them according to the causes of poverty:

- a) Positive” poor families that became poor because of the illness, disability, unemployment of the parents or other negative circumstances. Children from such families are mainly hardworking ones; try to study well, work in their spare time.
- b) Socially disadvantageous families where the parents are alcoholics, drug addicted or engaged in prostitution. Such families are degrading, with expressed anti-social behaviour. Disadvantageous children from such families are mainly rude and aggressive (dirty, untidy). Children, especially girls, early show the sexual activity, try to differ from others wearing challenging adult clothes that is similar to the clothes of the mother – a prostitute (Riska faktoru novērtēšanas..., 2005).

Family at risk is a family where the favourable environment for a child’s development is not being provided; emotional needs and basic needs of the child are not satisfied. There are with difficulties with solving problems in the families at social risk, the possibilities to provide a favourable environment for proper development of all family members are limited. Mostly families at social risk do not take care about families’ social mobility and public opinion about them due their incorrect behaviour. They have the only problem in their life - money, which is usually spend on drugs, smoking (Vaitiekus & Šakalyte, 2016).

In the author’s view, an important element is social support. Social support is daily interpersonal interaction or a communication process – verbal or nonverbal contact between a person being supported and the supporter, when the feeling of insecurity in the situations or relationships is reduced and functions to

improve the perception of personal control (Albercht & Adelman, 1987, 101). Different social support forms are mentioned in specific literature: *emotional support* is characterized by empathy, listening to a person, care, love; *evaluating support* consists of approval, feedback and social comparison that can be used by an individual for self-evaluation; informative – advice, recommendation that helps an individual to react to requirements and instrumental support – necessary means, services that help an individual, for example, money, food and other means. Social support helps an individual to develop successfully, to realize himself/herself and to socialize. The positive direction of the relations shows the positive feedback of social support, positive support, awareness, perception – the unity of dignity and health with social support. In the negative direction, the relation between dignity and health is not provided. According to the World Health Organization definition, health is complete physical, mental and social well-being, and not only the condition of not being ill or disabled (World Health...). The author emphasises that family problems show that a positive attention deficit has been distributed to all social strata within the family.

Features that characterise the social risk families: family at risk; both parents are employed; a little emotional contact with a child; unemployment; lack of necessities; delivery at the apartment; mixed marriages; involvement in sects; lack of education for parents; lack of information; lack of a supportive system; large families with many children; family crisis – loss of a family member; birth of a child; illness etc. High risk family is characterized by: violence of any type in the family; any kind of addictions; deviant and anti-social behaviour; unfavourable conditions for upbringing children; negligence of a child's health and education (Riska faktoru novērtēšanas..., 2005). The issue of multi-problem families is often discussed in connection with the term threatened child, which is a child whose life or health is somehow threatened.

The author indicates that different problems and violence are mainly noticed in poor families because it is easy to observe it. At the same time, the particular problem is violence in wealthy families. “Firstly, it does not comply with the idea about typical violence triggering factors. Secondly, it is difficult to work with such families because they gain particular authority and a violator's intellect is high and he/she can hide his/her violence” (Vardarbība un veselība..., 2007).

The family conflict can emerge between 1) a child and its parents (parents); the spouse or partner; 3) relatives. The cause of the family conflict is needs of family members, their wishes and aims. The basis is unsatisfied wishes of family members (Зеркин, 2007, 202). According to the study results of the Oregon social training centre, there is a close connection between disrupted families and antisocial behaviour of children, including criminal behaviour – the increase of the number of disrupted families is closely linked to the antisocial behaviour of a child (Patterson, De Baryshe, & Ramsey, 1990, 329-335).

The author can conclude that a decrease in the importance and of the role of the marriage institution, a large number of divorces and disruptive families, violence and family conflicts greatly affected the family relations not only in Latvia but also in the foreign countries. The axiom of interaction between the crime phenomenon and family relation institutions establishes the basis of family criminology (Мясникова, 2012, 148). Just like in every social group, there are own family problems, difficulties and conflicts. The task of criminology is to explore the impact of factors on it and thus to have an impact on the family life, mutual relationships to reduce crime (Шестаков, 2006, 561).

Conclusion

According to the author's point of view the aim of the studies to describe the criminological framework of family relations based on special literature, research and practice showing the framework of family criminology has been achieved. In the end of the discussion, the author concludes that criminological studies in family relations are a complex problem. The formation of criminal behaviour is also influenced by parenting, family functioning and mutual relations. Consequently, the role of the family is equally important both in the process of shaping the behaviour and in the production of directed behaviour.

It should also be concluded that the knowledge of family criminology is a useful, effective, concrete and practically feasible strategy for preventing a crime and feeling of threats. This approach has a multidisciplinary direction. The author points out that such criminological studies should be developed and activated in Latvia. The development of family criminology should be promoted. Thus, innovative approaches to crime research will be introduced in the country.

Family criminology as the sub-branch of criminological science studies and analyses:

- 1) the specifics of domestic violence;
- 2) factors and promoting conditions of domestic violence;
- 3) family impact on the criminal action of an individual;
- 4) family factors that form and promote a particular category of criminal offences of offenders – minors, violent persons; mercenary persons; women;
- 5) researches the possibilities for an offender to refuse to commit the crime, directly affecting the family environment;
- 6) complexly analyses and assesses the offences committed in the family environment.

Summary

The author concludes that it is necessary to promote the development of criminology as science and make the process of criminological research active. The author believes that, in Latvia, “family criminology” or “family relationship criminology” as criminology sub-field needs to be developed, which explores the impact of the family institution on criminal behaviour and crime. Therefore, the family criminology would include the issue of family influence on the persons involved in violence (formation of a violent offender and a victim) as one of the research areas.

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ВОЗМОЖНОСТИ И ПЕРСПЕКТИВЫ РАЗВИТИЯ ЦИФРОВОЙ ЭКОНОМИКИ В МИРЕ И РОССИЙСКОЙ ФЕДЕРАЦИИ

Opportunities and Prospects of Development for the Digital Economy in the World and the Russian Federation

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Abstract. *Implementation of digital economy tools in the new information environment is a catalyst for innovative development of the economic environment of the state as a whole. It is obvious that not all the available opportunities and resources for the development of the digital economy have found their vectors of implementation, many of them have not been studied sufficiently and haphazardly, the existing potential and prospects have not been disclosed.*

Understanding of the need to develop elements of the digital economy has come to a head in the Russian economic and legal environment, as evidenced by the development and implementation of priority areas of the strategy of scientific and technological development of Russia. The mentioned problems determine the relevance of the research study of the possibilities of applying the positive foreign experience of digitalization of the economy in domestic practice. The paper provides an overview of the main categories of the digital economy, examines the features of its widespread distribution in the countries of the world, assesses the opportunities and prospects for the development of digitalization in Russia. New technologies, criteria and approaches to assessing the level of the digital economy, its institutionalization require effective regulation and management.

Keywords: *digital economy, innovations, national priorities, strategy.*

Введение ***Introduction***

Современное общество во всех сферах своей деятельности затронуто достижениями научно-технического прогресса, при этом наблюдается повсеместное внедрение цифровых технологий, начиная от быта, заканчивая сложными технологическими процессами и инновациями. Этому способствовало не только развитие научной мысли, но и размывание межстрановых границ, мировая глобализация и интеграция, которые привели к распространению результатов информационного революционного взрыва и переход к четвертой промышленной революции во все уголки мира.

В этих условиях возрастает роль информации, как важнейшего ресурса мировой экономики, который в совокупности со знаниями (интеллектуальный ресурс) и инновациями обеспечивает реализацию накопленного потенциала и рост экономик стран мира. Работая с информацией, человечество превращает ее в систему знаний, умений и навыков. При этом происходит переориентация социально-экономических отношений в сетевое пространство.

В настоящее время уровень научно-технического развития экономик развитых стран определяется приращением новых знаний и насыщенностью рынка высокотехнологической продукции. По статистике, именно развитые страны (Норвегия, Швеция, Дания, Южная Корея, США, Великобритания) реализуют более 90% научного потенциала мировой экономики, а также занимают более 80% глобального рынка высоких технологий. Именно динамизм инновационной сферы, обеспеченный симбиозом науки, образования и интеллектуальных ресурсов предопределяет роль государства в складывающихся международных отношениях и уровень развития цифровой экономики.

Современные зарубежные и отечественные исследования, а также объективная хозяйственная потребность подтверждают роль и значимость информационных ресурсов и цифровых технологий в развитии мирового экономического пространства. Об этом, в частности, говорится в Докладе Всемирного банка «О мировом развитии 2016: Цифровые дивиденды» (Всемирный банк, 2016).

Массовое распространение цифровых технологий дает положительный эффект в виде цифровых дивидендов (рост уровня благосостояния населения, маржа, общественный контроль системы государственного управления). Цифровые технологии способствуют модернизации реализуемой модели экономической деятельности и взаимоотношений, обеспечивают рост эффективности и отдачи от вложенных средств и

произведенных расходов и открывают на рынке новые возможности и перспективы (Сагынбекова, 2018).

Использование лучших мировых практик формирования инновационной системы и экономики знаний позволяют развивающимся странам строить собственные модели экономического развития. При этом, этот процесс тормозит недостаточный потенциал и низкий уровень развития инфраструктуры, что обуславливает значительное отставание таких стран от мировых показателей (Наумкин, 2018).

В России формирование и реализация основных элементов цифровой экономики началось сравнительно недавно: с Послания Президента Российской Федерации (РФ) Федеральному Собранию в 2016 году, в котором говорилось о необходимости ускорения темпов проведения масштабной системной программы «развития экономики нового технологического поколения, так называемой цифровой экономики» (Послание Президента РФ..., 2016). Концепция долгосрочного социально-экономического развития России предусматривает переход отечественной экономики на инновационный путь развития, неотъемлемыми составляющими которого являются выход отраслей национальной экономики на новый уровень конкурентоспособности, создание организаций инновационного типа, формирование и использование технологических платформ, организация новых наукоемких производств на базе существующих предприятий (Авдеева, 2017). Продолжением процесса активизации цифровизации на государственном уровне стало принятие программного документа «Цифровая экономика Российской Федерации» (Распоряжение Правительства РФ, 2017).

Цифровая экономика должна сопровождаться четко выстроенным и налаженным механизмом обеспечения информационной и экономической безопасности реализации ее элементов на различных уровнях регулирования и управления экономическими отношениями в цифровом пространстве. Вывод о том, что инновационные технологии должны быть безопасными и экономически эффективными очевиден, и государства должны стремиться к этому посредством воздействия различными рычагами на цифровую среду.

Цель данной статьи – исследовать сущность и основные компоненты современной цифровизации, парадигму развития национальной экономики с приложением лучших мировых практик цифровизации общества, а также определить возможности и перспективы развития цифровой экономики в России на основе межстранового анализа.

Объектом исследования выступают элементы цифровой экономики, основные вызовы и угрозы развития в современных экономических условиях.

Методы исследования. В статье сформулированные выводы и полученные результаты были определены посредством методов эмпирического и теоретического познания с использованием концептуального, логического и операционного компонентов. В процессе исследования использовались методы углубленного познания действительности (научная абстракция), сравнения, количественного и качественного анализа, систематизации, а также метод графической интерпретации.

Литературный обзор *Literature review*

Начало развития цифровой экономики как виртуальной хозяйственной системы положил в 1994 году канадский предприниматель Дон Тэпскотт, который последовательно в своих работах доказывал необходимость перехода на новые бизнес-модели (Tapscott, 1997) и к последующим экономическим циклам (Tapscott, 1999). Практически в одно время с ним Н. Негропonte определил основы цифровой экономики (Negroponte, 1995) как экономики «байтов вместо атомов» и связал ее развитие с интенсивным совершенствованием информационно-коммуникационных технологий.

Экономической цифровизации и виртуальным технологиям уделяется пристальное внимание не только в мировом научном пространстве, но и отечественными учеными. За рубежом вопросами цифровизации общества, в том числе межстранового анализа и распространения цифровой экономики в развитых и развивающихся государства (Европейский Союз, Китай, Франция, Вьетнам) занимаются Var Gorp N. & Batura O. (2015), Baller S., Dutta S., & Lanvin B. (2016), Brynjolfsson E. & Kahin B. (2000), Dosi G. (1982), Cicienia A. (2018), Blanchet D. (2017).

В частности, Brynjolfsson E. & Kahin B. (2000) цифровую экономику определяют как «...трансформацию всех секторов экономики с помощью компьютерной дигитизации информации». Geliskhanov I.Z. & Yudina T.N. (2018) рассматривают цифровую экономику с институциональной точки зрения как платформу, новый экономический институт, функционирующий в гибридной реальности, обладающий характеристиками посреднической сделки и организации. Заслуживает также внимания мнение Var Gorp N. & Batura O. (2015), согласно которому «цифровая экономика» – есть «... сложная многоуровневая структура, элементы которой соединены между собой почти бесконечным и постоянно растущим числом узлов...». Авторы в большей степени внимание уделяют технологической составляющей явления «цифровая экономика». Volintiru

С., Volintiru M., & Musetescu, R. (2017) занимаются вопросами анализа факторов экономической интеграции и интернационализации в Юго-Восточной Азии и тенденций рынка.

Отечественными учеными также исследуется категориальный аппарат, концептуальные положения и инфраструктурные составляющие цифровой экономики. Бабкин А.В. цифровую экономику определяет как «совокупность общественных отношений, складывающихся при использовании электронных технологий, электронной инфраструктуры и услуг, технологий анализа больших объемов данных и прогнозирования в целях оптимизации производства, распределения, обмена, потребления и повышения уровня социально-экономического развития государств» (Babkin, Tashenova, & Chuprov, 2017).

Dosi G. связывает цифровую экономику с инновационностью развития государства, считая, что триединство «наука-образование-инвестиции» характеризует уровень развитости и цифровизации общества, и выделяя между экономиками разных стран технологические и организационные разрывы в развитии цифровизации (Dosi, Grazzi, & Moschella, 2015).

Государственная программа «Цифровая экономика Российской Федерации» (Распоряжение Правительства РФ, 2017), утвержденная на основе Стратегии развития информационного общества на 2017-2030 годы (Указ Президента РФ, 2017), определяет цифровую экономику как систему, «в которой данные в цифровой форме являются ключевым фактором производства во всех сферах социально-экономической деятельности, что повышает конкурентоспособность страны, качество жизни граждан, обеспечивает экономический рост и национальный суверенитет».

Веселовским М.Ю., Погодиной Т.В. и др. исследуются финансовые, налоговые, информационные, коммуникационные, инфраструктурные, технологические и организационные механизмы продвижения инновационной деятельности в условиях перехода к цифровой экономике и анализируются основные показатели информатизации общества России и ряда ведущих зарубежных стран (Veselovsky, Pogodina, Pyukhina, Sigunova, & Kuzovleva, 2018).

В целом цифровую экономику можно охарактеризовать как систему взаимодействия субъектов электронной коммерции и электронного денежного обмена. Она представляет собой не только виртуальный мир, но и конкретные материальные вещи (технологические платформы и инструменты). В России цифровая экономика еще только формируется. Ее становление влечет глобальные изменения во всех сферах жизни человека.

Методология *Methodology*

В статье сформулированные выводы и полученные результаты были определены посредством методов эмпирического и теоретического познания с использованием концептуального, логического и операционного компонентов. В процессе исследования использовались методы углубленного познания действительности (научная абстракция), сравнения, количественного и качественного анализа, систематизации, а также метод графической интерпретации.

Результаты исследования *Research results*

Мировая практика развития цифровой экономики и ее преимущества перед реальным бизнесом (виртуальность, зависимость от научно-технического прогресса и уровня инновационного развития, персонализированность, отсутствие посредников и т.д.) показывают, что общество готово к структурным преобразованиям всех сфер жизнедеятельности. В цифровой экономике, как специфическом сегменте рынка, добавленная стоимость формируется с использованием цифровых (информационных) технологий. Она затрагивает сферы государственного управления, информационной инфраструктуры и безопасности, научных исследований, образования и здравоохранения.

За рубежом начиная с конца XX века курс в сторону развития цифровизации общества взяли многие страны, в том числе США, Китай, ЕС, Австралия, Япония, Сингапур и т.д.: принимаются программы и стратегии развития цифровой экономики, как в общем в государстве, так и по различным отраслям и направлениям (например, в сфере социального обеспечения, образования, инфраструктуры) (Авдеева, 2017).

Анализ мирового опыта показывает, что США и Китай обладают мощным потенциалом развития цифровой экономики. США в области развития цифровой экономики ориентируются на следующие ее преимущества: свободное перемещение данных, нейтральный интернет, кибербезопасность, транспарентность и эффективное управление и др. (Ревенко, 2017). Учеными эти аспекты, в том числе вопросы информационной безопасности, подробно анализируются, например, Merhi M.I. & Ahluwalia P. (2018) предлагают концептуальную модель, отражающую взаимосвязь между факторами, связанными с цифровыми технологиями, и коррупцией.

Базовыми составляющими цифровой экономики являются электронные деньги, инфраструктура (информационно-коммуникационные технологии) и электронная торговля, эффективное взаимодействие которых возможно при активном государственном регулировании. Для этого целесообразно на каждом этапе развития цифровой экономики разрабатывать ключевые институты (образовательная среда, правовое обеспечение, технологические заделы) и инфраструктуру (информация, безопасность).

Цифровая экономика имеет многоуровневую структуру, при этом существует тесное взаимодействие всех уровней, которое влияет на общество в целом. Первый уровень реализуется на различных рынках и в отраслях экономики и затрагивает традиционные сферы деятельности, в рамках которых происходит сотрудничество экономических субъектов (продавцов и покупателей). Второй уровень представляет собой научно-технологические платформы и технологии и включает базы, заделы и компетенции для поступательного и активного развития рынков, сфер детальности, отраслей экономики. Третий уровень формирует среда, которая включает совокупность экономических условий создания и совершенствования платформ и технологий; на их базе реализуется эффективное взаимодействие участников экономических отношений. Цифровая среда включает законодательство, инфраструктуру, персонал и безопасность во всех ее проявлениях (Распоряжение Правительства РФ, 2017). В России для развития цифровой экономики необходимо создание индустриальных платформ как базиса формирования единого цифрового экономического пространства. В качестве предпосылок развития цифровой экономики в России опережающими темпами можно назвать:

- значительный потенциал отечественной образовательной системы с подготовкой креативных высококвалифицированных специалистов;
- наличие достаточной инфраструктуры для формирования оригинальных решений по созданию организационно-технологической платформы цифровой экономики;
- действие санкционной политики в отношении России, замедляющее развитие цифровой экономики путем недостатка западных инновационных технологий и цифровых бизнес-моделей;
- наличие синергии в системе институционального и инфраструктурного обеспечения развития цифровой экономики (Сагынбекова, 2018).

В настоящее время, когда по всему миру активно и успешно развивается цифровая экономика, в России необходимо активно внедрять ее технологии и инструменты, для того, чтобы оставаться конкурентоспособной на мировом рынке. Согласно исследованиям Brynjolfsson E. & Kahin B. (2000), Dosi G. (1982), Perez C. (2010) целевыми показателями развития цифровой экономики являются доля интернет-торговли в ВВП и уровень цифровой экономики в ВВП. Показатель уровня цифровой экономики в ВВП страны представлен на рис. 1. Используемые статистические данные свидетельствуют о развитии цифровой экономики в мире. В частности, показатель развития цифровой экономики в Великобритании по сравнению с 2010 годом в 2016 году повысился на 4,1%. Значительный скачок получила Мексика, Аргентина, Россия, Турция.

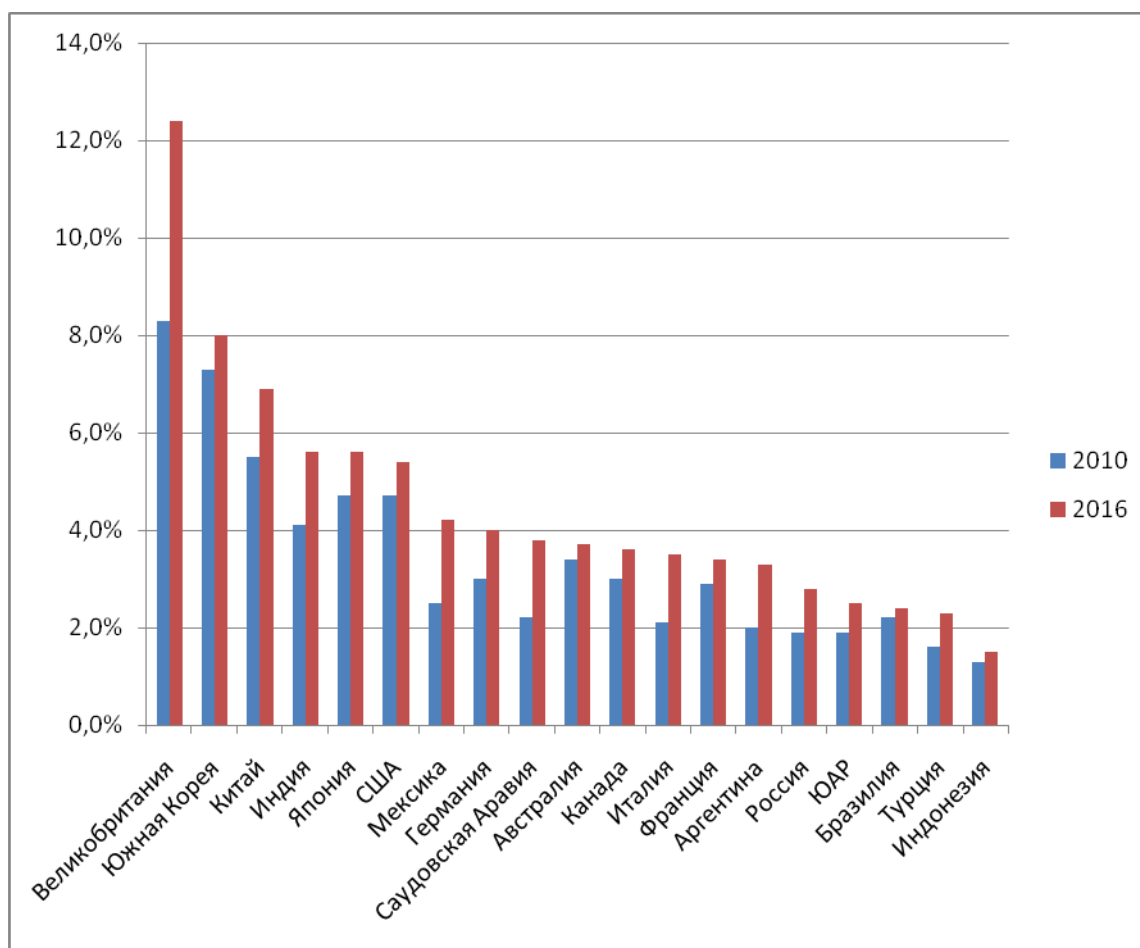
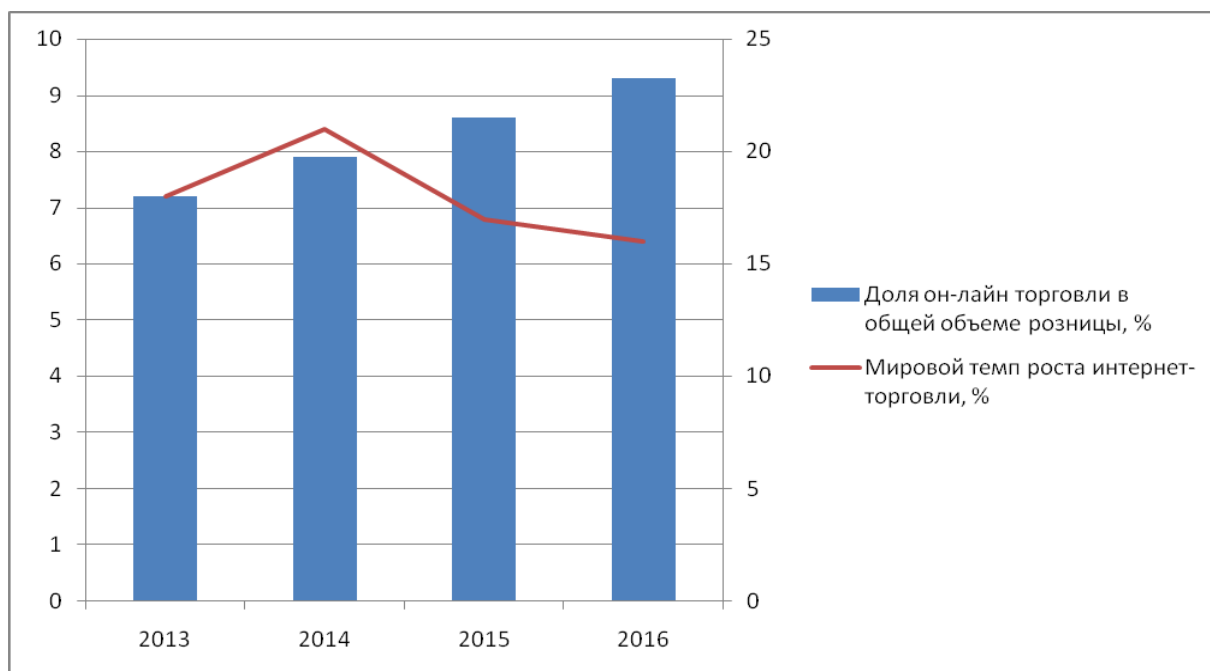


Рисунок 1. Показатель уровня цифровой экономики в ВВП страны (сравнение данных за 2010 и 2016 гг.) (Индикаторы цифровой экономики, 2018)

Figure 1 Digital economy as a percentage of the country's GDP (comparison of data for 2010 and 2016) (Индикаторы цифровой экономики, 2018)

Объем интернет-торговли в 2015 году в мире составил 1,8 трлн. долл., в 2016 году темп роста составил 16% (рис. 2). В России уровень интернет-торговли в ВВП в 2017 году составлял 2,42%. К 2021 году планируется увеличение показателя до 4,7% ВВП. Мировым лидером по интернет-торговле является Китай (Седых, 2016).



По оси X отражена информация о доле интернет-торговли в общем объеме товарооборота, выраженная в %, а по оси Y – темп роста интернет-торговли в мире, выраженный в %

Рисунок 2. Интернет-торговля в общем объеме мирового розничного товарооборота (Седых, 2016)

Figure 2 E-Commerce as a percentage of the total volume of global retail trade (Седых, 2016)

В 2017 году в России уровень цифровизации составляет 2,8% ВВП, значительная часть из которых приходится на сферу потребления как форму виртуальной коммерции (Цифровая экономика..., 2017). Около 80% рынка электронной коммерции в России составляет интернет-торговля различными товарами (для сравнения экспорт цифровых технологий составляет всего лишь около 1,2%), при этом прогнозируется рост он-лайн продаж к 2023 году до 2,4 трлн. руб. при среднегодовом темпе роста 16% (Shopolog, 2018).

Согласно данным аналитического исследования International Data Corporation, затраты мировой экономики на разработку и внедрение цифровых технологий будут увеличиваться каждый год на 16,8%. В 2019 году их значение должно достигнуть 2,1 трлн. долл. (Главные цифровые экономики мира, 2016).

Milošević N., Dobrota M., & Rakočević, S.B. (2018) исследуют состояние цифровизации бизнеса и промышленности между странами и регионами Европейского союза, при этом для проведения углубленного сравнительного анализа в качестве измерителя цифровой экономики использовали методологию статистического измерения расстояния, ранжировав страны Европейского союза, основываясь на показателях цифрового развития.

Существующими вызовами и угрозами развития цифровой экономики являются проблемы человеческой идентификации и персонифицированности, обеспечения информационной безопасности (угрозы обществу, бизнесу, государству, личности), рост киберпреступности, низкий уровень инновационности отечественной экономики (Наумкин, 2018).

Россия по глобальному индексу кибербезопасности в 2017 году среди других государств находится на 10-м месте со значением 0,788. В состав данного показателя включается уровень развития информационно-коммуникационных технологий и показатель развития электронного правительства (Индикаторы цифровой экономики, 2018). Международный индекс цифровой экономики общества по РФ равен 0,47 в 2016 году. Среднее значение по странам ЕС – 0,54. Данный показатель определяется исходя из параметров связанности, человеческого капитала, пользования интернетом, развития цифровых технологий и государственных электронных услуг. По уровню инновационности Швейцария является страной-лидером, в рейтинге глобального инновационного индекса занимает 1-е место, Россия находится на 45-м месте. Анализ проводился по показателям человеческого капитала и развития инноваций, развития инфраструктуры и устойчивости бизнеса, а также развития креативной деятельности (Индикаторы цифровой экономики, 2018).

К преимуществам цифровой экономики можно отнести дистанционность управления деятельностью, рыночную и отраслевую доступность, упрощение расчетов, ведение электронного документооборота, повышение производительности труда, сокращение себестоимости и теневой экономики, увеличение бюджетных доходов за счет прозрачности транзакций, расширение информационных возможностей для населения, переход на электронное управление, создание новых рабочих мест путем освоения новых рынков. Несмотря на положительные стороны развития цифровой экономики, государство может столкнуться и с негативными последствиями, такими как нарушение безопасности конфиденциальности личных данных, засорение информационного пространства, дефицит высокообразованных кадров и, как следствие, повышение безработицы (Распоряжение Правительства РФ, 2017)



Рисунок 3. Возможности и перспективы развития цифровой экономики в РФ (составлено авторами)

Figure 3 Opportunities and prospects of digital economy development in Russia (compiled by the authors)

Возможности и перспективы развития цифровой экономики в РФ представлены на рис. 3. Цифровая экономика для развития государства открывает широкие возможности внедрения инноваций в различные отрасли хозяйствования, расширяет роль человеческого капитала в инновационном процессе, способствует ускорению и эффективности проведения научных исследований, обеспечивает глобализацию и интеграцию современного мира. В итоге повсеместная цифровизация позволит сформировать национальную информационную платформу, обеспечить рост добавленной стоимости, а также эффективную реализацию инноваций. Цифровая экономика, имея тенденцию к поступательному развитию, повсеместно внедряется во все отрасли экономики: промышленность; энергетику; жилищно-коммунальное хозяйство; сферу агропромышленного комплекса; торговлю; связь и телекоммуникации; финансовые технологии и др.

Однако, несмотря на положительные результаты развития цифровой экономики и улучшения состояния инфраструктуры Россия значительно отстает (период отставания составляет 5-8 лет) от стран-лидеров цифровизации экономики (Капанова, 2018). В российской экономике цифровая трансформация должна крайне положительно повлиять на развитие различных отраслей. К 2025 году в связи с распространением цифровой экономики планируется значительное увеличение доли цифровых технологий в ВВП (до 34%) (Капанова, 2018).

Открывающиеся с внедрением цифровой экономики перспективы для всех участников экономических отношений (физические лица, организации и корпорации, государство) требуют новых возможностей и драйверов (определяющих факторов) развития, которые возможны лишь в адаптированном правовом поле и оптимальной инфраструктуре.

Анализ возможностей и перспектив развития цифровой экономики позволяет говорить о практически неиссякаемом потенциале к ее росту, наличием для этого необходимого базиса и ресурсов. При этом, гиперактивные скачки роста доли цифровой экономики в ВВП стран имеют и обратную сторону, связанную с повышением зависимости экономики мира от цифровой среды, наличием информационных рисков и угроз.

Решением этих проблем должно стать проработанное правовое поле цифровизации национальных и глобальной экономик, развитая система кибербезопасности, учет социальных и моральных последствий внедрения цифровой среды для общества.

Заключение *Conclusions*

Таким образом, цифровая экономика, выступающая новой динамично развивающейся формой ведения хозяйственной деятельности информационного общества, активно развивается во всех сферах и отраслях. Исследование мировой практики, особенностей и трендов развития цифровой экономики дает возможность наиболее результативно эксплуатировать и развивать имеющийся инновационный потенциал страны, создавать условия для экономического роста и содействовать повышению национального благосостояния.

Цифровизация российской экономики впоследствии должна привести к формированию устойчивой платформы, на которой будет осуществляться качественная трансформация ее элементов и реализация скрытых потенциальных возможностей и перспектив.

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Summary

Modern foreign and domestic research, as well as objective economic needs confirm the role and importance of information resources and digital technologies in the development of the world economic space. Digital technologies contribute to the modernization of the implemented model of economic activity and relationships, ensure the growth of efficiency and return on investment and expenditures and open up new opportunities and prospects in the market. The digital economy should be accompanied by a well-built and well-established mechanism to ensure information and economic security of its elements at various levels of regulation and management of economic relations in the digital space. Economic digitalization and virtual technologies are paid close attention not only in the world scientific space but also by domestic scientists. The analysis of literature sources allowed us to characterize the digital economy as a system of interaction between e-Commerce and e-money exchange. It is not only a virtual world but also specific material things (technological platforms and tools).

An analysis of world experience shows that the US and China have strong potential for the development of the digital economy. The US digital economy is guided by the following advantages: free movement of data, a neutral Internet, cybersecurity, transparency and good governance, etc.

The basic components of the digital economy are e-money, infrastructure (information and communication technologies) and e-Commerce, the effective interaction of which is possible due to active state regulation. In Russia, the digital economy is still in its infancy. For its development, it is necessary to create industrial platforms as the basis for the formation of a single digital economic space. The digital economy, with a tendency to progressive development, is everywhere introduced in all sectors of the national economy. However, despite the positive results of its development and improvement of infrastructure, Russia lags far behind (the lag period is 5-8 years) from the leading countries of digitalization. The possibilities and prospects of digitalization for Russian society are also discussed in the paper. By 2025, the share of digital technologies in Russia's GDP should increase to 34%.

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МАРКЕТИНГ XXI ВЕКА: ОТ ПОИСКА КЛИЕНТА ДЛЯ БИЗНЕСА К ПОИСКУ «НЕУЖНОГО» БИЗНЕСА ДЛЯ КЛИЕНТА

*Marketing in the XXI Century: from Finding a Customer for
Business to Finding «Necessary» Business for the Customer*

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Abstract. *The research aim of the paper is to review and to describe best practices for marketing and to highlight the characteristics of marketing-management. System analysis, analytical and comparative methods were used for this research. The paper deals with marketing changes, which have been happening in the business community for last years. Nowadays a number of companies define marketing as a basis for management decision-making, abandoning the traditional model in which marketers were only focused on selling already produced goods. The authors of the paper consider that such a model is the future of a client-oriented business. Using this model, the company's marketing structures are connected at the stage of creating a new product and are actively involved in its entire life cycle. This concept allows companies to create a necessary product for the consumer, and sometimes to anticipate his/her needs, which makes the companies stand out from the majority of competitors. The paper also notes that in our society the main values of companies are not production facilities that are owned, but intellectual resources and the ability to use information about customers. Thus, the development of the brand and focus on the consumer, rather than building up physical assets, becomes the main driving force of the company's development. The companies that learn how to handle a huge amount of information about their customers and anticipate their needs, creating new products and services, will be able to succeed in a highly competitive environment.*

Keywords: *business, choiceboard, customer, customer centricity, marketing, marketing-management.*

Введение ***Introduction***

В современном мире происходит стремительное развитие маркетинговых технологий. В прежней модели бизнеса, работающей в индустриальном обществе, маркетинг понимался в качестве одной из функций организации. В современном обществе происходит концептуальное становление маркетинга в качестве основы для принятия управленческих решений. А существующая в прошлом веке основа бизнеса «произведи и продай» в XXI веке преобразуется в «пойми и отреагируй».

От эффективности работы маркетинговых структур компании во многом зависит ее конкурентоспособность как в краткосрочной, так и в долгосрочной перспективе. Интегрирование маркетинга в управление компанией – успешная практика многих успешных прогрессивных компаний.

Можно выделить причины становления концепции маркетинг-менеджмента:

- перемещение маркетинга в бизнес-единицы и снижение роли традиционного маркетинга;
- стремительный рост е-коммерции и е-маркетинга и необходимость их интеграции для получения действительной картины развития бизнеса;
- переход от стратегии привлечения клиентов к их удержанию требует новых моделей маркетинга;
- повышающиеся требования финансистов к маркетологам в области оценки экономической эффективности маркетинга компании;
- необходимость превращать накопленную информацию о рынках, клиентах в знания, которые помогают предвосхищать и прогнозировать тенденции рынка и изменение поведения покупателя (достижение покупательского инсайта).

Актуальность исследования обусловлена необходимостью выделения особенностей интегрирования маркетинга в управление организацией на современном этапе развития мировой экономики, что требует от современных компаний совершенно иных правил игры на рынках сбыта с использованием современных достижений маркетинг-менеджмента.

Цель данной статьи – описать передовой опыт в области современного маркетинга и выделить характерные особенности маркетинг-менеджмента на современном этапе развития мировой экономики.

Для достижения поставленной цели использовались такие методы исследования как изучение литературы и передового опыта деятельности, анализ и синтез, сравнительный метод и системный анализ.

Материалы и методы *Materials and Methods*

Методологическую основу статьи составляют труды известных ученых в области:

- маркетинга (Ф. Котлер, И.В. Липсиц);
- маркетинг-менеджмента (Ф. Вебстер, Ф. Котлер, В. Кумар, К.Л. Келлер, И.В. Липсиц).

При написании работы применялись следующие методы: изучение литературы и передового опыта деятельности, анализ, синтез, сравнительный метод, системный анализ.

Под маркетинг-менеджментом в исследовании мы будем понимать систему методов управления компанией, предполагающую использование маркетинговых подходов и инструментов при решении максимально широкого круга задач различных функциональных областей менеджмента: от маркетинга отношений со стейкхолдерами компании до внутреннего маркетинга и управления цепями поставок (Липсиц и др., 2019).

Результаты исследования *Results of the research*

Идея создания концепции маркетинг-менеджмента принадлежит Фредерику Вебстеру, который в 2005 году опубликовал статьи о дисперсии маркетинговых компетенций (Webster, Malter, & Ganesan, 2005). В 2006 году Ф. Котлер публикует 12 издание учебника «Маркетинг менеджмент», где представляет концепцию холистического маркетинга, соединив в ней внутренний, социально-ответственный и интегрированный маркетинг и маркетинг взаимоотношений (Котлер & Келлер, 2006). Поддержал идею интегрированного маркетинга и В. Кумар, сформулировав маркетинговую парадигму, сущность которой заключается в том, что маркетинг должен быть интегрированной частью схемы процесса принятия решения в организации (Kumar, 2015). О том, что маркетинг должен выступать в качестве основы для принятия маркетингового решения, говорит и И.В. Липсиц (Липсиц и др., 2019).

В маркетинг-менеджменте известная нам ранее концепция 4P (продукт, цена, продвижение, распространение) трансформируется в 4P

(люди (анг. people), процесс (анг. processes), программа (анг. programs), эффективность (анг. performance)) (Kotler & Keller, 2016).

Люди отражают внутренний маркетинг. Сотрудники имеют решающее значение для успеха маркетинга. Маркетинг будет успешным, если люди в организации будут профессионалами. Также данная категория отражает тот факт, что маркетологи должны рассматривать потребителей как людей (личностей), которые понимают свою жизнь более широко, а не просто как покупателей, которые потребляют продукты и услуги.

Процессы отражают всю привнесенную в маркетинг-менеджмент структуру, дисциплину и креативность. Маркетологи должны избегать специального планирования и принятия решений и обеспечивать, чтобы современные маркетинговые идеи и концепции играли надлежащую роль во всем, что они делают, включая создание взаимовыгодных долгосрочных отношений, творческого подхода, генерирование идей и новых продуктов, услуг и маркетинговых мероприятий.

Программы относятся к деятельности фирмы, направленной на потребителя. Они включают в себя старые 4P, а также ряд других маркетинговых мероприятий (в частности в режиме «онлайн»), которые могут не вписываться в старый взгляд на маркетинг.

Эффективность определяется как диапазон возможных показателей результата, которые имеют финансовые и нефинансовые последствия (прибыльность, бренд) и последствия за пределы самой компании (социальная ответственность, правовая, этическая и экологическая). Наконец, эти новые 4P фактически применяются ко всем процессам в компании, и, думая таким образом, менеджеры маркетологи становятся более тесно связанными с остальной частью компании.

Тотальная автоматизация бизнес-процессов, развитие информационных технологий требует создания новых информационных систем, которые обеспечивали бы управление бизнес процессами, к которым мы отнесем также процесс создания ценности, обслуживания покупателей, управление спросом. Основой для интеграции этих процессов должен выступить процесс управления маркетингом (маркетинг-менеджмент), поскольку сегодня бизнес сообщество понимает, что удержать старого клиента дешевле, нежели привлечь нового. В связи с этим возрастает необходимость реализации концепции интегрированного маркетинга, который пронизывает всю организацию – от каждого сотрудника до каждого отдела, а также способен обеспечить удержание потребителей за счет их вовлечения во взаимодействие с компанией и во много раз возрастают полученные из информации знания.

Изменения, происходящие в прогрессивных компаниях, меняют и ранее известные нам установки и ценности. Производственные мощности,

основные средства уже давно перестали быть решающим фактором в конкурентной борьбе. В XXI веке компании, которые владеют квалифицированными кадровыми ресурсами и арендованными мощностями нередко обходят своих конкурентов, в собственности которых серьезная материально-техническая база и вековой опыт работы. Компаниям приходится работать в недетерминированных системах бизнеса. Рост количества товаров с одинаковыми свойствами делает выбор потребителя затруднительным. И именно задача маркетолога, анализируя клиента, опередить его сегодняшние (а лучше завтрашние) потребности и удовлетворить их раньше фирм-конкурентов. Маркетологов необходимо привлекать на стадии разработки нового продукта, а не на стадии продажи уже готового (как было ранее и еще нередко встречается в действующих российских компаниях).

Как отмечает И.В. Липсиц, богатство фирмы в XXI веке – это не столько огромные структурные или финансовые ресурсы, сколько обладание следующими качествами: владение и умелое использование больших объемов информации, эффективный маркетинг и выгодный доступ (не владение) к лучшим финансовым и структурным ресурсам, которые можно использовать в рамках деятельности компании (Липсиц и др., 2019).

Таким образом, для компании главными становятся интеллектуальные ресурсы (человеческий капитал) и ресурсы отношений с клиентами и контрагентами. Именно благодаря новому пониманию бизнеса мы отмечаем, что усиливается процесс декапитализации, когда компании начинают избавляться от физических активов (ресурсов), которые им ранее принадлежали. Прогрессивные компании, избавившись от своих активов, начинают пользоваться чужими на условиях аутсорсинга и сосредотачиваются в работе над маркетинговой составляющей бизнеса. Вставшие на этот путь организации трансформируют себя из «производственных» в «маркетинговые» компании, которые гораздо быстрее реагируют на изменения трендов на рынке. Как пример, мы можем привести компанию NetJets, которая создала сервис аренды самолетов (разделенного владения) для бизнес-авиации. Компании покупают не самолет, а его долю, которая гарантирует определенное количество часов полета в год. Следовательно основные затраты несут владельцы долей самолета, а не NetJets. Меняется и философия самого потребителя: если раньше было выгодно иметь машину в собственности, то сейчас с учетом пробок и проблем с парковками в мегаполисах рациональнее использовать арендованный транспорт. Оценив спрос, компании, предлагающие авто в аренду, стали предоставлять расширенные пакеты услуг: аренда по подписке, каршеринг, подписка на определённые машины, которые он может использовать в

выбранный период (например, клиент может выбрать три вида машин: седан для поездок по городу, кроссовер для поездок на пикник и внедорожник для охоты или рыбалки).

В обостряющейся конкурентной борьбе смогут преуспеть компании, которые научатся обрабатывать огромную массу информации о своих клиентах. Так огромное сосредоточение информации сейчас имеется у мобильных операторов, банков. Эти компании знают, где мы находимся в данный момент, в какие магазины ходим, какую сумму тратим на продукты питания, хватает ли нам денежных средств. Однако пользуются данной информацией далеко не все. Например, один из крупнейших банков России после обслуживания клиента может его перенаправить к менеджеру, который ему предложит кредит. Однако этот клиент за последние три месяца уже трижды отказывался от данного предложения. Такая неумелая работа с информацией о клиенте может повлечь за собой его потерю. А вот грамотное использование этой информации может стать ключевым фактором в привлечении или сохранении клиента.

В XXI веке ориентация на клиента означает не только прибыльное удовлетворение потребностей путем разработки комплекса маркетинга. Бизнес приходит к пониманию того, что основа устойчивого роста – это лояльность прибыльных клиентов.

Современные компании, будучи клиентоориентированными, находят новые возможности для работы с потребителями. В качестве успешного примера мы можем привести концепцию *choiceboard* («шведский стол»), которая предлагает покупателю создать свой уникальный продукт.

Вариант 1. Фирма-одиночка (Dell, Amazon)	Вариант 2. Объединение фирм одной отрасли (Alibris – консорциум букинистических магазинов)	Вариант 3. Информационный посредник (PointCom Alibris – поиск книги во всех букинистических магазинах сразу)
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*Рисунок 1. Модели организации маркетинга по принципу «шведского стола»
(составлено авторами)*

*Figure 1 Models of marketing organization on the principle of «choiceboard»
(compiled by the authors)*

В первом варианте фирма самостоятельно создает шведский стол. Она строит свой бизнес соответствующим образом, чтобы предложить покупателю максимально возможный набор параметров товара или услуги, которые может произвести (оказать) фирма.

Второй вариант может реализовать консорциум фирм в одной области.

Согласно третьему варианту «шведский стол» создает фирма – информационный посредник. В рамках этого варианта фирма ничего не производит самостоятельно, а формирует огромную базу обо всех вариантах товаров и услуг, которые существуют на данном рынке. Покупатель в такой компании видит эксперта, который поможет ему выбрать необходимый товар и перечисляет ей вознаграждение за ее услуги. Возможен также вариант, при котором фирма-посредник даже не участвует в сделке купли-продажи напрямую, а получает комиссионные вознаграждение за помощь в продаже товара.

Вероятно, что модель массового производства по индивидуальным заказам в ближайшем будущем получит значительное ускорение, поскольку она даст конкурентные преимущества первым компаниям, умеющим ее реализовать, и интересна клиентам. Такая модель, очевидно, потребует от маркетологов:

- способности выявить в общей массе клиентов тех, которым интересна индивидуализация продукта или услуги;
- создания новых коммуникативных технологий, которые будут побуждать клиентов формулировать заказ на индивидуализацию продукта (услуги) и тем самым создавать спрос на данную технологию;
- определение тех параметров, в отношении которых клиент хочет получать индивидуализацию, чтобы не инвестировать средства в те параметры, индивидуализация которых клиенту не интересна.

Добавив к этому маркетинг партнерских отношений, мы получим ту модель бизнеса, к которой бизнес сообществу необходимо быть готовым. Ключевое отличие маркетинга партнерских отношений от традиционного – посторенние партнерских долгосрочных отношений с клиентом, всестороннее понимание его ожиданий, формирование и развитие доверия к деятельности компании. Таким образом, взаимодействия с клиентом выходят за пределы конкретного коммерческого предложения или транзакции и трансформируются в глобальные для компании. Локальные задачи компании (рост объема продаж, например) при реализации концепции маркетинга партнерских отношений трансформируются в глобальные, направленные на улучшение ее восприятия, осознание конкретным клиентом и обществом в целом ее миссии и формирование доверия к ее деятельности. Возможно, как дальнейшее развитие данных концепций в XXI веке, мы также увидим маркетинговые войны «шведских столов».

Выводы **Conclusions**

Описав передовой опыт развития маркетинга на современном этапе развития мировой экономики, нами выделены характерные особенности маркетинга-менеджмента.

1. Маркетинг-менеджмент – это холистический маркетинг, направленный на сотрудничество потребителя и компании.
2. Маркетинг является частью принятия решений в организации, основой процесса принятия управленческих решений. Маркетологов необходимо привлекать на стадии разработки нового продукта, а не на стадии продажи уже готового
3. В маркетинге-менеджменте комплекс маркетинга 4P (продукт, цена, продвижение, распространение) трансформируется в 4P (люди, процесс, программа, эффективность).
4. Маркетинг-менеджмент требует создания новых информационных систем, которые обеспечивали бы управление процессами создания ценности, повышения качества и оперативности обслуживания покупателей, в том числе в Интернет, управление спросом, управление лояльностью потребителей за счет их вовлечения во взаимодействие с компанией.
5. В концепции маркетинга-менеджмента меняется отношение к производственным мощностям: ведущая роль отводится не основным средствам организации, а доступу к большим объёмам информации и способности их обрабатывать, качеству человеческих, интеллектуальных ресурсов и возможности использовать арендованную мощь. Это делает бизнес гибким и адаптивным.
6. Маркетинг-менеджмент соединяет интегрированный маркетинг и маркетинг партнёрских отношений.

Summary

Having described the advanced experience in the development of marketing at the present stage of development of the world economy, we have highlighted the characteristic features of marketing-management.

Marketing-management is holistic marketing aimed at the cooperation of the consumer and the company. Marketing is a part of the decision-making process in organizations, the basis of management decision-making. Marketers need to be involved at the stage of developing a new product, and not at the stage of selling an already finished one. In marketing-management, marketing mix 4P (product, price,

promotion, place) is transformed into 4P (people, processes, programmes, performance).

Marketing-management requires the creation of new information systems that would provide value process management, improve the quality and efficiency of customer service, including the Internet, demand management, and customer loyalty management at the expense of the involvement interaction with the company.

The attitude towards production capacity changes in the concept of marketing-management: the leading role is not assigned to the organization's main means, but to access to large amounts of information and the ability to process them, the quality of human, intellectual resources and the ability to use leased capacity. This makes the business flexible and adaptive.

Marketing-management combines integrated marketing and marketing partnerships.

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INFORMATION ACQUISITION METHODS AND THEIR RELATION TO THE LEVEL OF EQUIPMENT OF A FARM IN INFORMATIVE INFRASTRUCTURE ELEMENTS

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***Abstract.** All item flows are always accompanied by information flows. The condition of the goods flow between a sending point and a receipt point is exchange of information between a sender and a consignee. The role of scientific-technical and economic information in modern agriculture grows successively. It is hard to imagine efficient management that would guarantee rational use of the factors of production, including respect for the environment, ensuring high quality of products and satisfaction of market requirements without it. Information is indispensable for both agricultural producers as well as producers and providers of production means and agricultural products consignees. Farms which strive to be competitive and which want to develop must use facilities of modern information technologies. The aim of the paper was to determine information acquisition methods and the relation to the level of equipment and the use of information infrastructure elements on commodity farms. The paper covered 50 agricultural farms located in the south Poland region. Information acquisition methods and the level of equipment and use of information infrastructure elements were determined. Respondents also evaluated which of the information acquisition methods*

was the best and which was the worst. It was concluded that the level of farm equipment in elements of information infrastructure was satisfactory and the information infrastructure methods guaranteed efficient farm management.

Keywords: *logistics, information, equipment, farm, production.*

Introduction

Agriculture, similarly to the remaining types of activities, more and more depends on modern technologies (Szelaǳ-Sikora, Cupiał, & Niemiec, 2015; Cupiał, Szelaǳ-Sikora, & Kuboń, 2018a), which themselves require specific resources of knowledge. Besides, changes in external conditions require that (functioning of a farm as a system with a great threat of instability, e.g. crisis) and changes in agriculture (increase of the meaning of the so-called GRIN technologies e.g. genetics, robotics, the Internet and nanotechnology) are noticeable. All these processes require a farmer to have knowledge of a wide range of fields. (Janc, 2013; Gródek-Szostak, Szelaǳ-Sikora, Sikora, & Korenko, 2017). Fast access to information, keeping pace with global trends, possibility to obtain information on sale markets, contact with suppliers, clients, co-producers are indispensable to them (Kuboń & Krasnodębski, 2010; Cupiał, Kobuszewski, Szelaǳ-Sikora, & Niemiec, 2015a). Thus, in relation to changes in a political, technological and socio-economic surrounding of agriculture, constant acquisition of information, build-up of knowledge and rising qualifications by farmers is indispensable (Janc, 2013). A dispersed character of agricultural production results in the decrease of its meaning in the access to traditional sources of knowledge (education and resources collected in libraries and institutions). Informative and communication technologies, including access to and ability to use the resources collected in the global network enable extension of knowledge and obtaining indispensable information and simultaneous reduction of unfavourable localization conditions (spacious isolation) (Małecki, & Moisel, 2008; Lorencowicz, Kocira, Uziak, & Tarasińska, 2014; Lorencowicz, Koszel, Kocira, & Uziak, 2015; Uziak, Lorencowicz, Koszel, & Kocira, 2017). Resources of the global network Internet are presently a significant and popular source of information for agricultural producers. It, and more precisely ability to use it, decides on the ability to function and compete on the economic arena - in agriculture (Janc, 2013).

According to Kuboń (2007), Cupiał (2006; 2010), Kania (2014), Cupiał, Szelaǳ-Sikora, & Sikora (2018b) the role of scientific-technical and economic information in modern agriculture rises successively. It is hard to imagine efficient management that would guarantee rational use of the factors of production, including respect for the environment, ensuring a high quality of products and satisfaction of the market requirements, without it. Information is

indispensable for both agricultural producers as well as the producers and suppliers of production means and consumers of farm products. Updated scientific-technical and market information is needed mainly by developing farms that modernize their production and introduce modern technologies in plant and animal production based on the relevant selection and rational exploitation of technical and energy means (Cupiał, Szelaż-Sikora, & Niemiec, 2015b; Zahran, Yousef, Kassem, & MA Naba, 2016). Ability to effectively acquire information, and as a result knowledge depends mainly on two groups of factors. The first one are farmers' abilities to acquire knowledge. The ability to acquire knowledge should be taken into account here – knowledge of knowledge sources, willingness to learn. Moreover, access to knowledge sources is significant (e.g. relevant software or having an Internet connection). The second group of factors relates to the resources of knowledge (that can be obtained). Except for the quantitative dimension, easiness of finding necessary information or links among complementary knowledge sources are significant (Janc, 2013). According to numerous research studies on the amount and quality of obtained data and the manner of their acquisition, results to a great extent are contingent upon the specificity of a farm, and mainly depend on the production trend (Cupiał & Wnęk, 2008; Kuboń, 2007).

Objective, scope and methodology of research

The aim of the paper was to determine information acquisition methods and the relation to the level of equipment and the use of information infrastructure elements on commodity farms. The studies covered 50 agricultural farms from 8 communities from the southern Poland region. The facilities were selected randomly, but the basic criterion of selection was the size of a farm adequate to the farm structure in Małopolska region and the size and structure of commercial production that decided on the farming trend. The selected farms completely describe the region of Małopolska, and the assumed division of farms according to the production trend reflects the scale and structure of the commodity production that is carried out.

The studies were carried out in the form of a guided survey. The questionnaire included questions based on which the following were determined: the structure of land use and the cropping pattern, the size and structure of production, the size and structure of commercial production, access to information infrastructure, the scope and type of applied informative technologies, the frequency of application of particular information technologies, the manner and frequency of access to information. Moreover, sources for obtaining information were learned about, as well as it was determined which sources for obtaining information were the best and which were the worst.

Results and discussion

Based on the data obtained from the Main Statistical Office, it can be concluded that equipment of Polish households with computer technology improves every year. It also takes place in rural areas. According to Bilali & Allahyari (2018), computerization and development of telecommunication gives farmers new possibilities of fast acquisition of technical and economic information and their effective use in decision-making processes. Modern farmers become managers that try to optimize organization of their farms (Mokotjo & Kalusopa, 2010). Their management is not only a lifestyle for them but business where they can earn high incomes providing that they use all offered possibilities, but where they may fail to sustain if they do not manage their farms more efficiently than the majority of competitors (Morrow, Kelly, & Kirley, 2004). Equipment of farms with information infrastructure elements includes information systems and information equipment (mobile and home phone network, desktop computers, laptops and specialist software). Table 1 presents the level of present equipment with elements of information infrastructure.

Table 1 Level of equipment of farms with information infrastructure elements (%) (own elaboration)

Farms/Specification	Telephone		Fax	Desktop or laptop computer	Internet network Home/Mobile
	Home	mobile			
Single trend - plant production					
Average	63.0	100.0	18.6	94.4	84.5/15.5
Single trend - livestock production					
Average	70.8	91.7	7.8	100.0	69.3/30.7
Double-trend					
Average	53.3	100.0	4.7	80.0	33/67
Mixed					
Average	57.1	95.7	-	72.9	62.7/37.3

It was concluded that in all the investigated facilities telephones constituted the highest number of teleinformation means - with a prevailing number of mobile phones (20.9-46.7%). Fax is being replaced with e-mails, which is proved by a high concentration of facilities with desktop or laptop computers (72.9-100%). All the investigated farms had access to the Internet, but it varied with regard to the connection type. Permanent connections were in 33-84.5 % of the facilities, and in the remaining cases radio connection was used (15,5-67%). Computers with suitable software were used the most often for registration of economic problems, collection and processing of legal provisions and to a small extent for supporting management of production processes (e.g. crop rotation, herd

turnover, calculation of fertilization doses). Table 2 presents the information base of logistic processes that take place on a farm.

Table 2 Information base of logistic processes taking place on a farm (%) (own elaboration)

Specification	Collects legal provisions	Uses system of registration of farming processes	Uses specialist software	Maintains obligatory documentation of transfers and turnovers	Uses documents for circulation of information
Single trend - plant production					
Average	60.5	58.1	79.5	62.8	30.2
Single trend - livestock production					
Average	45.8	25.0	84.2	66.7	25.0
Double-trend					
Average	83.3	70.0	50.0	50.0	50.0
Mixed					
Average	71.4	42.9	57.1	42.9	52.9

The research shows that collection of legal provisions and recording economic processes was mainly carried out by double-trend farms and the least often by single-trend livestock farms. Specialist software occurred the most often on single-trend plant and livestock farms (79.5 and 84.2%), more rarely in the remaining groups of farms (50 and 57.1%).

There are different methods of collecting information in agriculture. Table 3 presents methods of information acquisition (press, TV, radio, the Internet) that are the most often used by farmers in percentage terms.

Table 3 Methods of collecting information (%) (own elaboration)

Specification	Specialist press	TV	Radio	Internet
Single trend - plant production				
Average	67.7	90.7	76.7	84.0
Single trend - livestock production				
Average	77.5	95.8	45.8	88.3
Double-trend				
Average	53.3	100.0	50.0	66.7
Mixed				
Average	100.0	85.7	71.4	38.6

The studies that were carried out show that the press was the main source of obtaining information for mixed farms and television for double-trend farms.

Information provided on television was very often used also by single-trend farms. High equipment of farms in computers is reflected in their wide and frequent use for obtaining information by the Internet. It occurs the most often on single-trend farms (84% and 88.3%) and the least often on mixed farms (38.6%).

Among the investigated farmers, computers were the most often used to connect to the Internet. The most important objective of using the Internet was searching for varied information both concerning production (technological, economic, food and marketing), as well as others (inter alia meteorological information, prices of produce). The use of the Internet for communication to write emails any time, available all day was very important for the owners. The respondents used it very often for education purposes and to create various types of letters and forms for various entities. However, responses concerning issues relating to the use of a computer technique in agricultural activity were more varied. Table 4 presents the level and structure of use of the Internet for obtaining information.

According to the research that was carried out, the respondents the most often use the Internet, regardless of their production, for external communication (68.6-83.3%) and for collecting various information (77.6-82.6%). The farmers more often searched for professional (83% of the farmers), price (67%) and meteorological information (79%). Also, a prevailing majority of the investigated farmers (81%) used e-mails. For internal communication, advertisement of products and contacts with suppliers and recipients the network was used the least often. It results from the fact that commercial farms do not need to search for suppliers, recipients nor advertise their products since the supply and sale is planned and contracted beforehand.

Table 4 Use of Internet for obtaining information (%) (own elaboration)

Specification	Internet network							
	Internal communication	External communication	Advertisement/marketing	Commerce-farm-supplier	Commerce-farm-supplier	Decision-taking	Quality control	Collection of information
Single trend - plant production								
Average	4.7	83.3	7.0	18.6	11.6	7.0	2.3	82.6
Single trend - livestock production								
Average	4.2	44.2	-	4.2	26.7	8.3	-	79.2
Double-trend								
Average	-	69.3	-	-	-	16.7	-	68.0
Mixed								
Average	-	68.6	33.2	-	-	14.3	-	77.6

In order to analyse the available sources of information more extensively (not only those related to the ITC infrastructure) and knowing the farmers preferences in obtaining information, the farm owners were asked which of the mentioned manners of obtaining information was the best and which was the worst? The results are presented in Tables 5 and 6.

All the respondents said that telephone was the worst method of obtaining information (33.3-66.7%), followed by radio and television (25-44.5%) and representatives of companies (28.6-56.3%). Then, the respondents mentioned: the industry press, exhibits and shows. The question: which of the methods of informing is the most misleading, was answered the most often by the respondents that information from radio and television and information obtained by phone.

Table 5 Which of the method of providing information is the worst (own elaboration)

Specification	Telephone	Radio, television	Agricultural press	Computer, www	Representatives of companies	Agricultural advising centres	Fairs and collection centres	Exhibitions/shows
Single trend - plant production								
Average	50.3	41.9	25.6	9.3	56.3	-	-	14.7
Single trend - livestock production								
Average	33.3	25.0	25.0	-	40.2	-	-	16.2
Double-trend								
Average	66.7	44.5	33.3	-	36.7	-	-	-
Mixed								
Average	44.3	28.6	54.5	-	28.6	-	-	3.7

Table 6 Which of the methods of providing information is the best (own elaboration)

Specification	Telephone	Radio, television	Agricultural press	Computer, www	Representatives of companies	Agricultural advising centres	Fairs and collection centres	Exhibitions/shows
Single trend - plant production								
Average	11.4	7.0	7.0	82.6	11.6	9.3	20.9	50.9
Single trend - livestock production								
Average	8.3	16.7	-	66.2	-	-	75.0	48.3
Double-trend								
Average	8.6	16.7	-	75.1	-	12.5	50.0	-
Mixed								
Average	14.3	-	14.3	72.8	14.3	-	28.6	-

However, the best methods of providing information, regardless of the production trend, were fairs and collection points (20.9-75%) and information obtained from the Internet (32.6-82.8%). For the single-trend farms, shows and industry exhibitions were an important place of obtaining information (50.9 and 48.3%).

Conclusions

The studies carried out in the southern part of Poland enable us to conclude that the level of farm equipment with IT infrastructure elements is satisfactory and the methods and manners of obtaining information guarantee efficient farm management. It was concluded that the higher the level of farm equipment with elements of ICT infrastructure, the more extensive is the scope of use of those measures for acquisition, collection and processing of information indispensable for agricultural production. Farmers more often use specialist software that supports the production process, and the Internet is the most popular and the most thorough method of searching for information on the Internet. These two key information technologies are very significant in the context of the direction of development of the software for agriculture as well as placing relevant information on the Internet. The obtained results may serve for improving agricultural information.

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PUBLIC-PRIVATE AGREEMENT AS A MANAGEMENT PROCESS: A STEP-BY-STEP MODEL OF EFFICIENCY IMPROVEMENT

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Abstract. *The aim of the study: to develop recommendations for the comprehensive improvement of the practice of concluding and implementing a PPP agreement. Research methods: analysis, synthesis, logical modelling.*

In the article the authors substantiate the analysis of the characteristic features of PPP agreements and identified four stages of this process: The first step. The process of initiation (start) of the project; Second step. The processes of execution (implementation) of the project; Third step. Monitoring processes (monitoring) of the project; Fourth step. The process of closing (completion) of the project. There are at least two participants in this process: a "public" partner (state) and a "private partner" - a business with different legal status and resources, as well as having different goals.

Each of the four selected stages presents "inputs" (initial action) and "outputs" (final action) separately for each of the participants. In the paper the authors reveal the content of each stage of the process and give step-by-step recommendations to improve efficiency.

From the point of view of the authors, consistent implementation of the recommendations presented in the practice of PPP will allow you to get away from the formalism and, in general, to increase the percentage of effective PPP projects.

Keywords: *efficiency, management process, public-private partnership.*

Introduction

Public-private partnership is currently a practice accepted in all developed and overwhelmingly developing countries, involving the alliance of the state (represented by state or municipal bodies) and business structures with the aim of implementing projects of social significance. At the same time, such projects can vary from large-scale - the construction of large transport hubs, airports, stadiums, etc., to "everyday" - the provision of public utilities and other public goods to residents of certain localities (Avdeeva, Averina, & Kochetova, 2018).

Nevertheless, a public-private partnership cannot be considered an exclusively new, modern phenomenon - agreements between the state (monarch) and business representatives were widely distributed in the XVII-XVIII centuries, having played an important role in the industrial revolution of the XIX century (Mazharova, 2018).

Nowadays, PPPs received an additional impetus to development in the 1990s, primarily in the countries of Eastern Europe (Poland, the Czech Republic, Lithuania) due to the need to rapidly modernize the infrastructure for these countries to join the EU. PPP agreements were actively supported (and funded) by international organizations because they allowed to solve two problems: to accelerate the development of market economy institutions and ensure the modernization of the infrastructure of these countries (expand the network of highways, ports and airports of international importance).

However, not all such projects can be considered effective. Thus, an example of an effective project is the modernization of the Warsaw airport: the intermediary between the “state and business” was the State Polish airline LOT, which became the guarantor for the fulfilment of obligations by contractors: medium and small construction companies of Poland and Germany, and the largest shareholders of the project were private airlines who compensated expenses after the start of operation of the airport.

An example of an inefficient project is the construction project of 80 km of a strategic highway in the Czech Republic: a foreign private company offered at first glance the best project and entered into an agreement without any competition. But the state, not having the necessary methodologies for evaluating PPP projects, was unable to predict in time the fact that the proposed financing structure shifted all risks to the state. As a result, the contractor had no incentive to fulfil the obligations on time and the Czech government was forced to terminate the project and pay a substantial penalty (Barkalov, Mazharova, & Sanina, 2017).

In the Russian Federation, public-private partnership in the modern sense has also developed since the 1990s, but it acquired significant proportions by the mid-2000s. The twentieth century represented the experience of both effective and inefficient projects (Barkalov & Mazharova, 2018).

Based on the above, the aim of the study: to develop recommendations for the comprehensive improvement of the practice of concluding and implementing a PPP agreement. To achieve this aim, the study solved the following tasks:

- the characteristic features of PPP agreements are defined;
- the main stages of the PPP project are identified and a model of public-private partnership as a management process is built
- recommendations have been developed to improve the efficiency of each stage of the process.

Research methods: analysis, synthesis, logical modelling.

Research results

The effectiveness of public-private agreements, as a tool to improve the quality of public goods provided by the state, is justified in the works of many authors and declared in a number of strategic documents of the Russian Federation (Mazharova, 2018).

As a result, the number of public-private agreements concluded over the past 10 years has increased almost 10 times (see Tabl. 1), however, quantitative growth does not always indicate efficiency: according to statistics, in some areas up to 30% of projects are prematurely terminated or implemented with significant lengthening the deadlines and increasing the cost of the project.

Table 1 PPP statistics in the Russian Federation
(Агентство стратегических инициатив, 2016)

Years	Number of projects
2008	21
2010	281
2013	887
2018 (forecast)	2446

Setting goals and objectives of the research study

In connection with the above, the aim of the present research study is to develop recommendations for the comprehensive improvement of the existing practice of concluding and implementing a public-private agreement, taking into account the specifics of public-private partnerships and its differences from contracts between commercial organizations.

To achieve this aim, the following tasks were set within the framework of the research study: to define the characteristics of public-private agreements; highlight the main stages of the PPP project and build a model of public-private partnership as a management process; develop recommendations for increasing the efficiency of each of the stages of the process.

Theoretical justification

As noted earlier, public-private agreements can vary significantly in terms of legal forms, as well as the scale and financing schemes, however, a number of features characteristic of almost any PPP project can be identified (see Fig. 1.).

The above features make it appropriate to consider PPP as a process, that is, a set of interrelated, sequential actions and operations carried out by the parties under an agreement to achieve a previously known goal.

Model of public-private agreement as a management process

Considering the public-private agreement as a specific management process, we proceeded from the fact that at least two parties act in this process: a “public” partner (state) and a “private partner” - a business with different legal statuses and resources, as well as having different goals.

In this regard, at each of the four stages identified, “entries” (initial action) and “exits” (final action) are presented separately for each of the participants.

Specific features of public-private agreements	long-term (10-15 years or more), but clearly defined terms of the agreements (the object must be built or the service rendered by a certain date)
	complex forms of financing: through private investment, supplemented by state financial resources, or joint investment by several participants
	specific forms of distribution of responsibility between partners: the state sets the goals of the project from the standpoint of public interests, and the "private partner" controls effectiveness at various stages of the project
	pre-established sharing of risks between the parties to the agreement on the basis of relevant agreements of the parties

Figure 1 Specific features of public-private agreements (authors' study)

Stage 1. Project initiation (start) processes

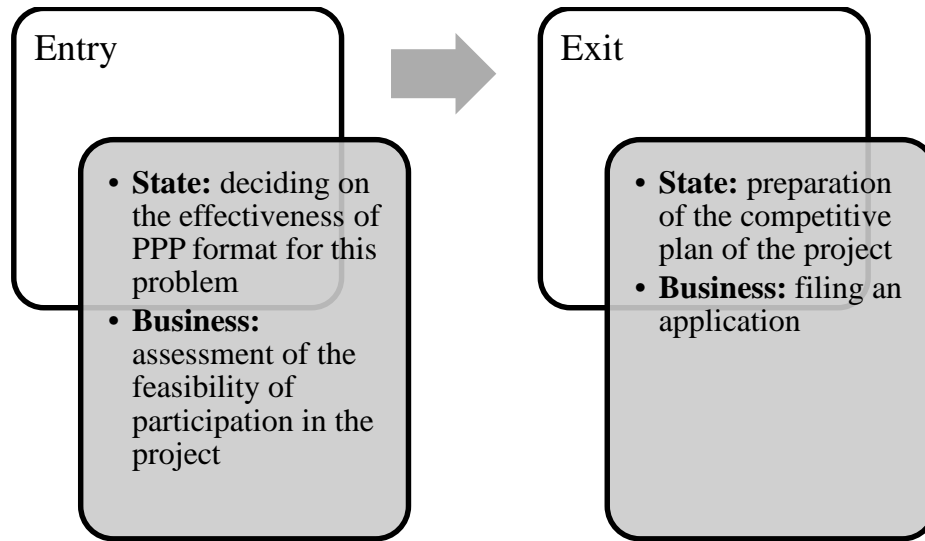


Figure 2 *Project initiation (start) processes (authors' study)*

At this stage, the main problems, from our point of view, are the unreasonable distribution of risks between the participants and the lack of a single assessment system for the state and business, as well as violations during the consideration of tender bids.

Accordingly, the solution to this problem can be the creation of recommendations that represent a standard risk distribution scheme, as well as the ranking of participants (not only private companies, but also government agencies) according to the degree of risk: counterparties who will be assigned an increased level of risk should be subject to a control procedures during competitions especially carefully.

Stage 2. Project execution (implementation) processes

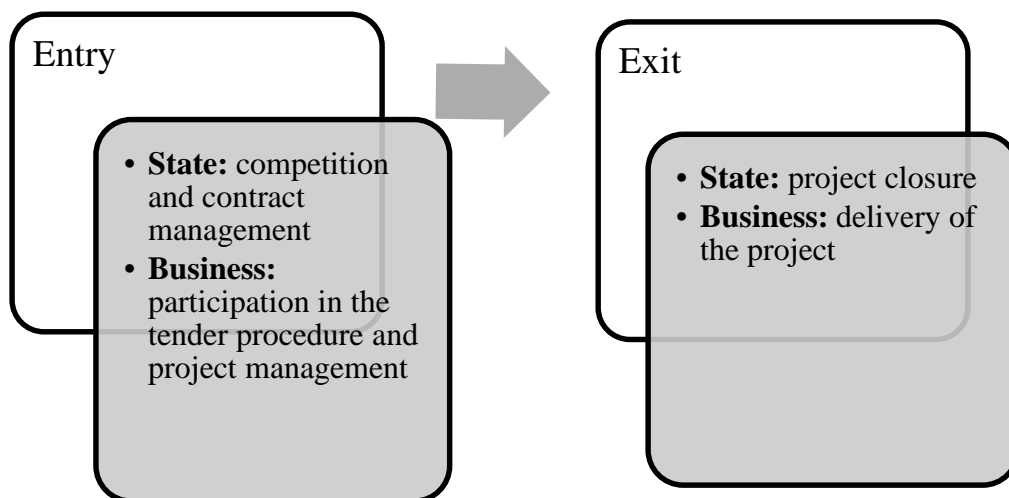


Figure 3 *Project execution (implementation) processes (authors' study)*

The problem with this stage, from our point of view, is the absence of constant guarantees from the public partner (state), which violates the principle of equality of the parties and forces private partners to avoid risks and innovations.

The solution in this situation could be the introduction of the principle of equality of the parties into a public-private agreement in accordance with the law, in particular guarantees of the stability of legislation on the implementation of a PPP project, as well as guarantees of liability of the public partner (in the person of responsible officials) for violation or unauthorized change of violations of the agreement.

Stage 3. Project monitoring (control) processes

At this stage, the problem is the lack of effective communication between the public and private partners, as well as various approaches to assessing the effectiveness of the project (as the main effect of the state is social effect, and for a commercial firm - economic feasibility).

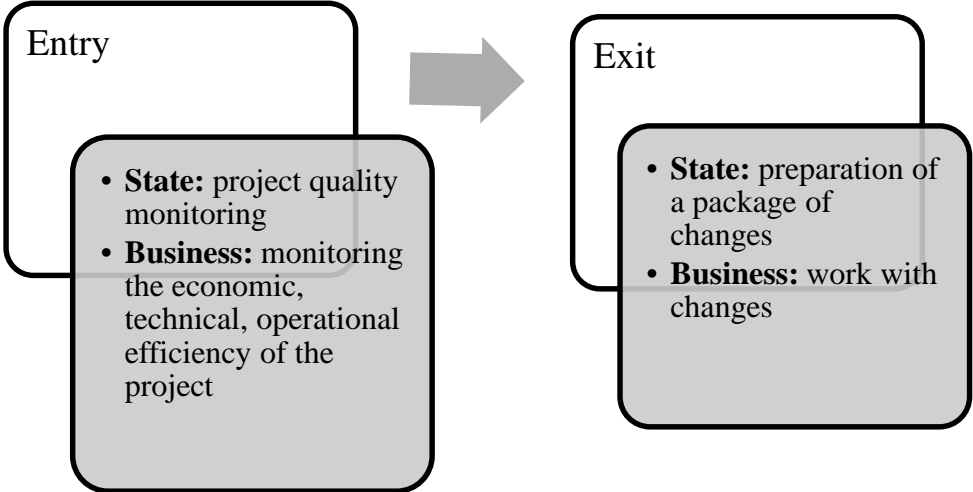


Figure 4 Project monitoring (control) processes (authors' study)

In this regard, to assess the feasibility of changes, the “last resort” may be the results of monitoring the “degree of satisfaction” of consumers - citizens.

Stage 4. Project closure (completion) process

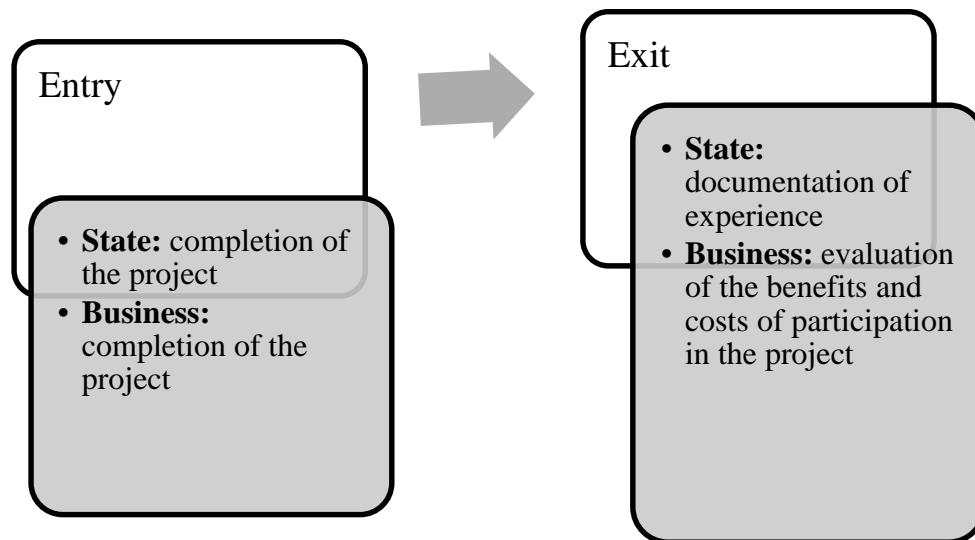


Figure 5 Project closure (completion) process (authors' study)

At this stage, the problem is the preservation and accessibility of information on the gained (including negative) experience, which can be solved by creating publicly available data banks on effective and ineffective public-private agreements.

Conclusion

Summarizing the above, we can conclude that, despite the active use of PPP practices, the number of unfinished or ineffective projects remains high. To solve this problem, an integrated approach is needed, which is applied in the framework of the presented PPP model - as a process, that is, a set of interrelated, sequential actions and operations carried out by the parties to an agreement to achieve a previously known goal. The choice of this model is determined by the specifics of PPP projects.

The development of such a logical model allowed us to identify the main problems that reduce the effectiveness of PPP projects.

These problems include: unreasonable distribution of risks among the participants; the absence of constant guarantees from the public partner (state), which violates the principle of equality of the parties; lack of effective communication mechanisms between public and private partners unavailability of sufficient information about the practice of specific PPP projects.

In this regard, the authors proposed a number of recommendations.

The consistent implementation of the presented recommendations into the practice of PPP will allow to avoid formalism and, in general, increase the percentage of effective PPP projects. In practice, the proposed recommendations can form the basis for legislative initiatives, as well as the creation of reference

documents, methodologies and databases administered by, for example, the PPP Development Agency.

Summary

In this paper, the authors developed a system of recommendations for the comprehensive improvement of the existing practice of conclusion and implementation of PPP agreements, taking into account the specifics of public-private partnership and its differences from contracts between commercial organizations.

The authors identified four stages of the process of concluding a public-private agreement: Stage 1. The process of initiation (start) of the project; Stage 2. The processes of execution (implementation) of the project; Phase 3. Monitoring processes (monitoring) of the project; Step 4. The process of closing (completion) of the project. There are at least two participants in this process: a "public" partner (state) and a "private partner" - a business with different legal status and resources, as well as having different goals.

In this regard, each of the four selected stages presents "inputs" (initial action) and "outputs" (final action) separately for each of the participants. In the paper the authors reveal the content of each stage of the process and give step-by-step recommendations to improve efficiency.

Ultimately, the consistent implementation of the presented recommendations in PPP practice will allow to avoid formalism and, in general, to increase the percentage of effective PPP projects. In practice, the proposed recommendations can form the basis for legislative initiatives, as well as the creation of guidance documents, methodologies and databases administered by, for example, the PPP development Agency.

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CRITERIA AFFECTING CUSTOMERS' CHOICE: THE CASE OF REZEKNE CITY CATERING COMPANIES

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Abstract. Increase of the number of catering businesses is driven by the growing demand, since more and more people choose eating outside. This is encouraged both by the rising welfare level and by a shift of the paradigm manifesting the diner as a place to socialize. However, from the perspective of the company, it is important to identify the main reasons why customers choose a particular eating-place. The aim of the paper is to explore the criteria influencing customers' choice and to test these criteria applying them to Rezekne city catering companies. As a result, it has been concluded that there are many criteria reviewed in the theoretical literature that could help a company to determine the criteria influencing the customers' choice. The paper is written within the framework of the RTA scientific grant "Quality Assessment of Rezekne City Catering Companies". Within the grant project, an expert questionnaire had been developed to carry out a quality assessment of Rezekne city catering enterprises. Consequently, the authors had an interest to explore the reasons motivating customers to choose a particular Rezekne city catering company according five criteria: location, offer, quality of food and drinks, company's image, and staff. As a result, the authors conclude that the most important criteria among the respondents was the quality of food and drink, as well as the offer, though, the evaluation varies depending on the particular company's specifics. The main research methods are monography, logically constructive, graphic, sociological.

Keywords: catering companies, customer satisfaction, customer choice, criteria affecting choice.

Introduction

Eating is a basic need of any individual. As the level of welfare of the population grows, a new habit – eating outside – that is popular in other European countries emerges in Latvia, too. This means that people choose using the catering services at midday, leisure time, or during holidays. The increasing level of welfare, rapid development of the tourism industry and shift in perception and attitude towards the food are the factors contributing to

development of the new trend. The diner becomes a place not just for eating but as well for meeting friends, relaxing, and spending free time (Walker, 2014).

In order to succeed, catering companies have to provide both high-quality food and drink and customer service according to the classification type of catering businesses, hence making the work of the companies more complicated. In catering business, customers recognize and understand very well if they do receive a quality service or not, as they perceive "good" as a matter of course (Lewit, 1981). The food quality is the crucial element for the success of a catering company; nevertheless, the concept of a restaurant is essential as well (Parsa, Self, Njite, & King, 2005).

The aim of the paper is to explore the criteria influencing customers' choice and to test these criteria analysing the case of Rezekne city catering companies.

The tasks to achieve the aim are the following:

1. To explore the perception of the quality of catering services.
2. To explore the criteria influencing customers' choice of a catering company.
3. To explore criteria affecting the customers' decision on choosing Rezekne city catering enterprises.

Literature review

A product created by the catering industry has a number of differences compared with a manufacturing product. A food industry product (Medne, 2004):

- consists of material product – food, dishes, tablecloths, interior elements, music and other additional offers the visitor can enjoy with his/her five senses: hearing, sight, smell, taste, and touch;
- immaterial product – the surrounding landscape, environment, atmosphere –, which is based on the knowledge, competence and attitude of the company's employees towards clients;
- the customer cannot be certain in advance if the service meets his/her needs, until he/she has tried or consumed the product;
- the catering service (food, atmosphere, service level, etc.) as a whole cannot be produced and, if not immediately consumed, be stored.

As a result, the actual offer of catering services may not always meet the criteria set by customers or their expectations. However, it makes much easier to bring the service closer to the customers' needs if the company knows its clients accurately.

The catering business environment (visual design, interior, location, etc.) affects customers' attitude to the price level, overall satisfaction, and loyalty. However, it is the responsibility of the catering company to ensure a high quality

service in order to secure the customers' satisfaction resulting in their motivation to re-purchase. Indeed, some researchers emphasize that it is ultimately customers' satisfaction contributing to the rise in the customers' loyalty, desire to re-visit, and to communicate with the company (Hennig-Thurau & Klee, 1997).

In the era of information technologies, communicating with the company can be very fast, as there are social networks (Facebook, Instagram, Twitter, etc.), sites for travellers (TripAdvisor, etc.) available, where information about offers, discounts and other activities can be disseminated. A satisfied customer shares his/her positive experience, motivating others to use the services of a particular caterer. However, it is important to remember that customers' satisfaction is affected by the customers' expectations. Truly, if a customer wants to get more than an entrepreneur is able to provide, then the result will be a dissatisfied client and, vice versa, if the customer waits for less than he/she gets, the level of satisfaction will be high. Indeed, it is important to consider the type of the catering company – the service level the caterer can offer (restaurant, fast food bistro, or coffee shop) (Lewis, 1981).

Customers' satisfaction level is affected by many factors – food quality, service received, cleanliness (both of the site and the staff appearance), the overall atmosphere, fast service (according to the type of the diner), a convenient location, and overall restaurant experience (the more frequent visitor of restaurants the customer is, the more experienced he/she is, hence much more critical he/she would be, and it will be more difficult to ensure a higher degree of his/her satisfaction) (Infosurv Research, 2017).

The significant role of catering companies has also contributed to the immense interest of researchers evaluating customers' satisfaction and identifying the criteria influencing the customers' choice in favour of a particular catering company. In the research papers, this topic has been handled since the middle of the last century when the researchers started to pay attention to the criteria influencing customers to choose a particular full service restaurant. The authors believe that these criteria are also applicable to other types of catering businesses. In Table 1, the authors have compiled the criteria, which are important for the client making his/her choice, set by different researchers.

*Table 1 Criteria defined in the theoretical literature for choosing catering companies
(compiled by the authors)*

Author	Criteria
R. Lewis (Lewis, 1981)	Food quality; menu variety; price; atmosphere; and convenience factors.
S.Auty (Auty, 1992)	Food type; food quality; value for money; image and atmosphere; location; speed of service; recommended; new experience; opening hours; and facilities for children.

L.P. June and S.L.J. Smith (June & Smith, 1987)	Price, atmosphere, liquor license, service and quality. Surroundings, customer turnover, location, price, quality of food, quality of service, and the type of food are the factors that consumers consider in choosing a restaurant.
Scientific Psychic (2019)	Price, variety of food, parking lot, reservation, and a special request in choosing a full-service restaurant.
Y.A.A. Akbar and M.S.S. Alaudeen, (Akbar & Alaudeen, 2012)	Price, service quality, food quality, location, restaurant environment, trustworthiness (halal status)
P. Kafel and T.Sikora (Kafel & Sikora, 2013)	Food quality, cleanliness, service, value, menu variety, convenience, and lastly atmosphere
W.G. Kim and Y.J. Moon (Kim & Moon, 2009)	Prices of meal, past experience with similar types of restaurants, reputation of a restaurant among people that the respondent knows, convenience of the location, whether any memorable advertisement has been seen, appearance of other customers, whether the employees are appropriately dressed, manners of the employees, premises.
R. Martin and P. Frumkin (Martin & Frumkon, 2005)	Convenience of the location, quality of food, good variety of food, and the price factor.
R.L. Hensley and J.M. Sulek (Hensley & Sulek, 2004)	Food quality, atmosphere, quality of the service and interpersonal skills of the restaurant employees.
S.S. Andaleeb and C. Conway (Andaleeb & Conway, 2006); A. Yuksel and F. Yuksel (Yuksel & Yuksel, 2002)	Quality of service; food quality; ambience; recommendations and the dining frequency of the customer
Ph. Kotler (Kotler, 1997)	Cultural factors (culture, subculture, social groups). Social factors (groups, family, role and social status). Individual factors (age and the stage of the lifecycle, occupation, economic conditions, lifestyle, and personality). Psychological factors (motivation, perception, knowledge, expectations and attitude).
Y. Upadhyay, S.K. Singh, G. Thomas (Upadhyay, Sing, & Thomas, 2007)	Quality of food, safety, menu, location, less time in serving, parking facility, convenient operating time, separate place for family, ambience, cuisine tariffs, separate bar, innovative recipe, specialised cuisine facility, only vegetarian cuisine availability, popularity of the chef.
T.D. Anderson and L. Mossberg (Anderson & Mossberg, 2004)	Food, good company, fine cuisine, service, other guests, restaurant interior.

Each of the researchers offers a variety of criteria that affect customers' choice; nevertheless, everybody believes that the food quality is the most important criterion. Other criteria are more or less determined by the type of the

catering company (Lewis, 1981), the local environment, social and cultural factors (Upadhyay, Sing, & Thomas, 2007), occasions for eating out (Auty, 1992) and the choice of the catering company for lunch or dinner (Anderson & Mossberg, 2004) etc. According literature review and based on research during project, authors use five criteria which influence customer choice – company's image, offer, location, food and drink quality and staff.

Methodology

Based on the study of theoretical literature on the customer decision-making process with regard to catering businesses, the customers' satisfaction level, and factors influencing it, as well as the criteria of the customers' choice in favour of a particular diner, a short questionnaire was developed. Its aim was to find out customers' opinion about Rezekne city catering companies: what the customers' preferences, choices are, and what their criteria for choosing the caterer are. Authors include in questionnaire only those catering companies which were evaluated during project research. The questionnaire consisted of seven questions; the survey was carried out between November 13, 2018 and December 5, 2018. According to the statistics, at the beginning of 2018 there were 28 156 inhabitants in Rezekne city (Rēzeknes pilsētas ..., 2018). To ensure validity and representativeness of the survey results, the required size of the sample was calculated. At a confidence level of 95%, the required number of respondents is 379 (Raosoft..., 2018). Four hundred thirty eight respondents were surveyed, which was sufficient to assert with a 95% probability that the survey data obtained are representative and could be used for the research and drawing conclusions.

Research results

Social and demographic characteristics of the respondents: 81.28% women and 18.72% men; 16.89% of the respondents were of age below 24, 31.96% - age 25 to 35, 26.03% - age 36 – 45, 22.83% - age 46 – 60, and 2.28% - 61 and above; 0.46% of the respondents had primary education, 11.87% - secondary education, 9.59% - vocational education, and 78.08% - university level education. Of the respondents, 88.58% were residents of Rezekne city or Rezekne municipality, 11.42% - visitors or guests.

The respondents had to note what Rezekne city catering companies they preferred (it was possible to choose no more than three catering companies). By another question, they were asked to note what catering companies they visited most often (see Fig.1). After processing the survey data, it was concluded that the most visited catering companies were “Ausmena Kebabs”, “La Pizza”, and

“Marijas Kafija”. The authors consider that the respondents' choice was determined by the ability of these particular companies to offer an interesting and high-quality product that was attractive to the customers.

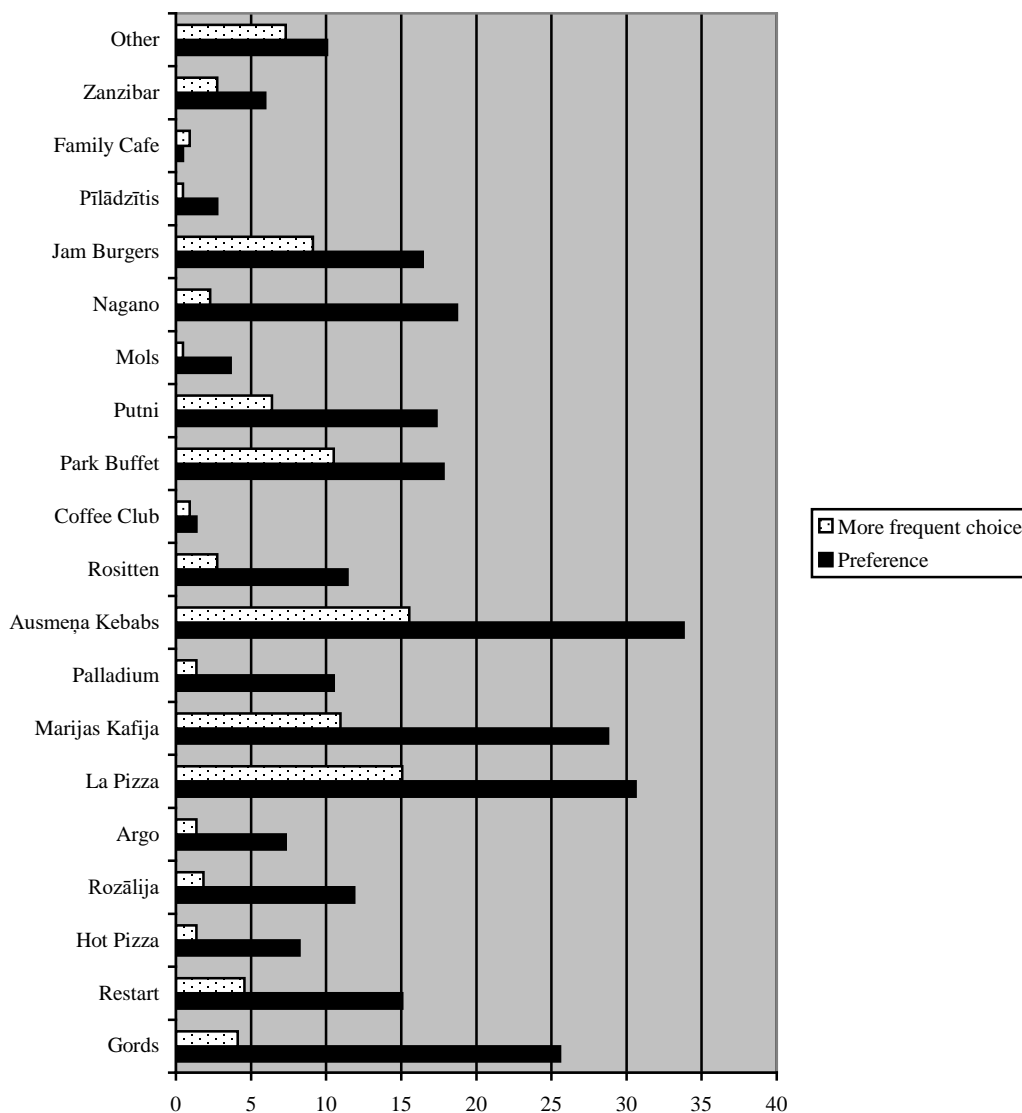


Figure 1 Preferences of Rezekne city catering enterprises by the respondents (compiled by the authors, based on the survey data)

During the research, five criteria were set: location, offer, staff, image, quality of food and drink. In the survey, the criterion "location" means the geographical location of the catering company in the city, as well as the business premises. The criterion "company's image" – the subjective perception of the customers about the company. The criterion "offer" – an assortment offered by the catering company. The criterion "quality of food and drink" – describes the quality of the supply of the company, which is measured in the categories

"tasty", "not tasty". The criterion "staff" describes the visual appearance of the staff (suitability of clothing, cleanliness), attitude (smile, kindness, openness, interest), professionalism (skill to serve clients according to the customer service standards), communication skills (including sales skills).



Figure 2 Criteria influencing the respondents' choice of Rezekne city catering companies, % (compiled by the authors, based on the survey data)

According to the respondents, the most important criteria for choosing the catering company was the quality of food and drinks, as well as the offer.

Table 2 Reasons for visiting a particular Rezekne city diner by the respondents, % (compiled by the authors, based on the survey data)

Catering companies	Reasons to visit					
	Location	Staff	Image	Offer	Quality of food and drinks	Other
Gords	0.91	1.37	0.91	1.37	3.20	-
Restart	0.91	0.46	-	1.83	3.65	-
Hot Pizza	1.37	-	-	0.46	0.46	-
Rozālija	0.46	0.46	0.91	0.91	1.37	-
Argo	0.46	0.46	0.91	0.91	0.91	-
La Pizza	6.39	1.37	0.91	7.76	6.85	-
Marijas Kafija	6.85	3.20	2.74	3.20	8.22	-
Palladium	0.46	-	0.46	0.91	0.91	-
Ausmena Kebabs	3.65	3.65	3.65	7.76	9.59	0.91
Rositten	0.46	0.91	-	0.91	1.83	-
Coffee Club	-	0.46	-	0.46	0.91	-
Park Buffet	4.57	1.83	0.46	3.65	6.39	0.46
Putni	1.83	2.28	2.74	3.20	2.74	-
Mols	-	-	0.46	-	-	-
Nagano	-	0.46	-	0.91	1.37	-
Jam Burgers	5.94	0.91	0.46	5.94	3.65	0.46

Pīlādzītis	0.46	0.46	-	0.46	0.46	-
Family Café	-	0.46	-	-	0.91	-
Zanzibar	0.91	0.91	0.91	1.83	1.37	-
Other	2.28	2.74	0.91	2.74	4.57	1.83

The respondents were asked to name the criteria that influenced their decision to visit a particular Rezekne city diner. Data in Table 2 depict the respondents' answers about Rezekne city catering enterprises distributed by the reasons motivating to choose the services of the particular diner. According to Table 2, the competitive advantage of each company can be determined. An analysis of the column "Location" shows that for one company (*Hot Pizza*) the location was the main reason for the customers' choice, but for the companies *Jam burgers*, *Pīlādzītis* it was just one of the customers' selection criteria. While analysing the location of both enterprises, it could be noticed that there were business organizations and offices in the close vicinity that determined the customers' choice in favour of these caterers. By analysing the column "Staff", it could be concluded that, in general, this indicator was evaluated relatively low for all companies. This means that the companies should pay more attention to the staff and, hence, the customer service, staff visual appearance, professionalism and accuracy of employees. An analysis of the column "Image" shows that only for the *Mols* it was the ultimate criterion for the customer's choice of the services of this company. The authors believe this was related both to the interior design of the restaurant (works of Latgalian artisans and painters not just served as interior elements, they could be purchased as well) and to the name of the company, which corresponded to the dialect used in the region, and location (historical street in downtown, building that was a cultural heritage monument). The services of this company were demanded especially when foreign visitors arrived. An analysis of the column "Offer" shows that for two companies (*La Pizza*, *Putni*) this was the main criterion for the customers' decision to choose the services of these companies. At the beginning, *La Pizza* offered its customers only pizzas, later the assortment was supplemented with pastries and organizing catering for parties and events. *Putni* were renowned for their sophisticated pastry and confectionery – macarons, and this was a unique offer in Rezekne. An analyses of the column "Quality of food and drinks" allowed concluding that the customers chose the catering services of many companies (*Gords*, *Restart*, *Rozālija*, *Marijas Kafija*, *Ausmena Kebabs*, *Rositten*, *Park Buffet*, *Coffee Club*, *Nagano*, and *Family Cafe*) for the quality of food and drink. Some respondents had mentioned other reasons such as price levels, family friendly and children friendly as well.

Conclusions and/or recommendations

Demand for the services provided by the catering companies increases, and this means that the level of competition increases as well. Efficient and cost-effective catering business completely depends on its customers. The better the catering company will meet the needs of its customers, the more successfully it will operate. Successful customer service requires a significant contribution to the preparation work developing customer service standards that precisely specifies the duties of each employee, describes the flows, the order of technical service, etc.

The main conclusion made by authors during this research – criteria which influence customer choice depend on the kind of catering company – is it restaurant where you can go with business partners, spend evening with friends or family or simple cafe where you can eat your dinner during break.

The authors believe that only the catering company, which knows its customers, can successfully organize processes, the interior, a menu, staff, etc.

Summary

Increase of the number of catering businesses is driven by the growing demand, since more and more people choose eating outside. This is encouraged both by the rising welfare level and by a shift of the paradigm manifesting the diner as a place to socialize. Catering companies have to provide high-quality food and drink and customer service. In catering business, customers recognize and understand very well if they do receive a quality service or not. However, from the perspective of the company, it is important to identify the main reasons why the customers choose a particular eating-place. The aim of the paper is to explore the criteria influencing customers' choice and to test these criteria by applying them to Rezekne city catering companies. A food industry product consists of material product; immaterial product; the customer cannot be certain in advance if the service meets his/her needs, until he/she has tried or consumed the product and the catering service (food, atmosphere, service level, etc.) as a whole cannot be produced and, if not immediately consumed, be stored.

As a result, it has been concluded that there are many criteria reviewed in the theoretical literature that could help a company to determine the criteria influencing customers' choice. The paper is written within the framework of the RTA scientific grant "Quality Assessment of Rezekne City Catering Companies". Within the grant project, the expert questionnaire had been developed to carry out a quality assessment of Rezekne city catering enterprises. Consequently, the authors had an interest to explore the reasons motivating the customers to choose a particular Rezekne city catering company according five criteria: location, offer, quality of food and drinks, company's image, and staff. As a result, the authors conclude that the most important

criteria among the respondents was the quality of food and drink, as well as the offer, though, the evaluation varies depending on the particular company's specifics.

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COMPARATIVE ANALYSIS OF THE SUBJECTIVE WELL-BEING OF THE BALTIC COUNTRIES' INHABITANTS IN THE CONTEXT OF ECONOMIC DEVELOPMENT

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Abstract. *Since the Baltic countries have joined the European Union, the value of personal satisfaction with life has fluctuated – decreased or increased – along with GDP per capita until the crisis, i.e. until 2009; afterwards, the nature of this dependency started to change across the countries. The novelty of the current research study is the analysis of the people's SWB dependence upon the economic development indicators in the Baltic countries after their accession to the EU, conducted in the context of the results of previous research studies on the topic. The research aim is to review theoretical research studies on the interrelation of people's SWB and economic development of the country, as well as to analyse the situation in Latvia, Lithuania, and Estonia. The following research methods were applied: the monographic method and regression analysis. The findings of the research study showed that Estonia was the leader among the three Baltic countries in all the economic development indicators considered, whereas Latvia was behind in all the indicators; moreover, the level of personal satisfaction with life was the highest in Estonia, although, as the results of the regression analysis demonstrated the SWB of people in Estonia was the least dependent on the economic development indicators.*

Keywords: *Baltic countries, economic development, GDP per capita, subjective well-being (SWB).*

Introduction

In the second half of the 20th century, a tendency emerged in the world to take into consideration a subjective evaluation and attitude to the living conditions of the inhabitants living in the particular area when evaluating development of this territory (Cummins, Eckersley, Pallant, Van Vugt, & Misajon, 2003; Cummins, Woerner, Tomyn, & Gibson-Prosser, 2012; Cummins & Weinberg, 2012; Australian National Development Index; Lonska, 2015; Willi et al., 2012; Hall, Giovannini, Morrone, & Ranuzzi, 2010a; Hall, Tredger, Novelli, & Thomas, 2010b). Consequently, quite a few ratings, surveys and reports were developed

just by ranking the countries according to their inhabitants' subjective evaluation and views; the most often used indicators are satisfaction with life (Stevenson & Wolfers, 2008; Bjørnskov, Gupta, & Pedersen, 2008; Degutis, Urbonavičius, & Gaižutis, 2010; Clark & Senik, 2011) and feeling of happiness (Easterlin, 1974, 1995; Morawetz, 1977; Diener & Biswas-Diener, 2002; Dolan, Peasgood, & White, 2008; Sanfey & Teksoz, 2008; Easterlin & Angelesku, 2012).

Analysing various factors influencing inhabitants' subjective well-being (SWB), the researchers note the economic factor as the first and the most important one creating and influencing an individual's overall economic well-being.

When reviewing the ratings of the Baltic countries (i.e. Latvia, Lithuania and Estonia) related to SWB, it can be noticed that the inhabitants' subjective perception of life in the country is very pessimistic, especially in Latvia and Lithuania. In the present paper, the authors consider and evaluate the influence of economic factors, i.e. purchasing power adjusted GDP per capita, people at risk of poverty or social exclusion, the unemployment rate, and the Gini index on the people's SWB in the three Baltic countries since their accession to the EU in 2004. The aim of the paper is to analyse the relation of the people's SBW to the economic development in Latvia, Lithuania, and Estonia.

Based on analyses of the theoretical studies on the relation of the people's SBW and economic conditions and on the empirical studies of the Eurobarometer and Eurostat data of 2004-2018, the following hypothesis is put forward: since Lithuania's and Latvia's accession to the EU in 2004, the SWB of the population of these countries directly depends on the economic situation, while in Estonia along with the economic factors, there are other non-economic factors affecting the subjective well-being of the population.

The body of the paper is organized as follows: discussion of the world researchers' and scientists' theoretical studies on the topic of the impact of economic conditions on people's SWB is followed by the description of the research methodology. The results of a diachronic comparison (i.e. the indicators' dynamics in the course of time) of relation of the people's SWB to the economic development of Latvia, Lithuania, and Estonia is provided in the last part of the paper.

In this paper, the following research methods were applied: the monographic method for the literature review, secondary analysis of data of previous research studies and statistics to illustrate the research problem as well as to prove the hypothesis. The authors' research is based on the Western economists' research on the subjective well-being of people and economic development of countries, on the empirical data of Eurobarometer studies, as well as on statistical data of Eurostat.

Literature review

So far, the question "Is money the secret of happiness?" or, as the researchers put it "Will raising the income of all increase the happiness of all?" (Easterlin 1974; Diener & Biswas-Diener, 2002; Layard, 2005; Kahneman & Deaton, 2010; Hagerty & Veenhoven, 2003; Veenhoven & Hagerty, 2006; Bjørnskov et al., 2008; Dolan et al., 2008) is still open: the scientists and researchers from all over the world are getting completely different results when trying to find an answer to the aforesaid question.

The most frequently analysed indicator is the impact of the country's GDP upon the people's subjective well-being. Carrying out their research studies, some scientists have come to the conclusions that:

- There is **no significant connection** between the country's GDP and people's SWB or the observed connection is weak (Easterlin 1974, 1995; Rojas, 2011). R. Easterlin has examined the interrelation between the people's sense of happiness and GDP both broken down by country and from the national perspective over a specific period of time. In both cases, he has discovered insignificant evidence of the link between the country's total income and the average level of happiness. In other words, in the course of time, the interaction between the national revenue (which directly affects the income of the population) and SWB tends to be zero. This phenomenon is well known as *The Easterlin Paradox*. According to it, an individual's SWB is a very relative concept: as long as the individual is better materially secured than other members of the society, he/she feels happy; as soon the surrounding people reach his/her material prosperity level, he/she is not so happy anymore, i.e. people tend to be not just rich, but rather to be richer than others. R. Easterlin declares: "In all societies, more money for the individual typically means more individual happiness. However, raising the incomes of all does not increase the happiness of all" (Easterlin, 1974). R. Easterlin explains this phenomenon as follows: as income increases, people adjust their material aspirations to the new level of income, thus reducing the potential gain of happiness. People adapt to the income growth by increasing proportionally their aspirations for the material benefits. In particular, alongside the income growth, the financial expectations increase as well, potentially making people to feel less satisfied with their income levels. Increasing dissatisfaction in financial life can become the basis for dissatisfaction with life.
- Only **rapid GDP growth** affects the people's SWB (Bjørnskov et al., 2008). In their studies on the life satisfaction in the EU-15 between

1973 and 2002, Bjørnskov and co-researchers have found that GDP growth alone has not led to the positive trends in the people's satisfaction with life, though the acceleration of the GDP growth did it. This means that, if people get used both to the new income level and to the fact that this income level continuously increases, their aspirations continue to grow constantly; that explains the surprisingly constant level of life satisfaction in the prosperous economies. Bjørnskov and co-researchers have found that life satisfaction is influenced by the size of the gap between the people's aspirations and their actual achievements. Accelerated GDP growth leads to a positive trend in the people's subjective satisfaction with life, i.e. the people feel more satisfied if their wishes come true. Besides, accelerated GDP growth and rapid increase in public spending compared with the situation in the neighbouring countries lead to positive trends in the people's satisfaction with life – the individuals tend to compare their country's situation with that of the neighbouring countries.

- There is a **bidirectional connection** between the individual's subjective and material prosperity, and the people who are happier start earning more by becoming economically motivated (Diener & Biswas-Diener, 2002; Dolan et al., 2008). Analysing correlations across the economies, E. Diener and R. Biswas-Diener have discovered that the findings of their study do not reflect the common idea that subjective well-being automatically derives from the higher incomes; this link includes in-between elements showing that such psychological factors as needs, desires, and social roles can play a crucial role in the link "money – subjective well-being". It turns out that in poor economies, income is linked to SWB to a much lesser extent than in rich economies. As regards national analysis, Diener and Biswas-Diener have proved that there is a two-way link between the people's SWB and their income. They have found no regularity that would evidence the income growth has a positive impact on the people's life satisfaction; on the contrary, possibly the income reduction does not affect SWB. Furthermore, they point out that there are situations where people who feel happier compared with others start to earn more, i.e. SWB positively affects the people's material prosperity (Diener & Biswas-Diener, 2002). This phenomenon has also been studied by P. Dolan, T. Peasgood, and M. Wait, using top-down explanation: when feeling happy, people become more economically motivated and start earning more compared with those who are unhappy (Dolan et al., 2008).
- Increase in revenues has the **buffering effect** in relation to life mishaps (Ahuvia & Friedman, 1998). A. Ahuvia and D. Friedman offer an

explanation of a **buffering effect**. They theorize that increasing income does not make people "happier", but rather make people feel protected from various troubles reducing their negative impact.

Nevertheless, most studies prove that a positive correlation between economic conditions and the people's SWB exists (Hagerty & Veenhoven, 2003; Veenhoven & Hagerty, 2006; Stevenson & Wolfers, 2008; Degutis et al., 2010; Clark & Senik, 2011). In particular, it is observed in low-income economies (Dolan et al., 2008; Deaton, 2008). However, in high-income economies, there is a certain income threshold, i.e. the so-called income saturation point at which the people's happiness level does not grow along with the increasing income, while this threshold is not observed in low-income economies (Layard, 2005).

B. Stevenson and J. Wolfers have repeatedly studied the Easterlin's Paradox and emphasize that there is a close link between the level of SWB and income in both rich and poor economies, rejecting the earlier assertion of the material prosperity saturation point, where higher GDP per capita is no longer associated with a higher SWB level (Stevenson & Wolfers, 2008). D. Degutis and his co-researchers also point at the cross-country analysis showing that GDP growth influences the growth of SWB both in relatively prosperous and relatively poor groups of the countries all over the EU-27. Although the national analysis indicates that only 15 countries of the EU-27 have a positive correlation between GDP per capita and life satisfaction (8 of these 15 are the new EU Member States and therefore poorer). It should be noted that there is no clear link between the changes in GDP and the level of SWB; this positive link is observed in all Eastern European countries except Hungary (Degutis et al., 2010).

There is a number of studies providing evidence that higher income goes hand in hand with the higher satisfaction scores (Stevenson & Wolfers, 2008; Clark & Senik, 2011; Deaton, 2008). For example, Stevenson and Wolfers, as well as Deaton cannot identify a significant income threshold between poorer and richer economies. This implies that the economic growth will increase life satisfaction in a similar way in any country, regardless of the actual income level. However, the impact of the absolute income growth on the SWB is rather modest in rich economies, comparing with relative income, which matters a great deal, particularly, in transition and developing economies because of higher income inequality that also negatively affects the SWB level. The income growth leads to higher SWB in all the three country groupings, i.e. high-income, transition, developing countries. However, the effect is very small in high-income countries, substantially larger in transition countries, and even larger in developing countries (Gruen & Klasen, 2013).

There is a lot of evidence that SWB is influenced not only by changes in GDP but by other economic indicators such as income inequality (Morawetz, 1977; Alesina, Di Tella, & Macculloch, 2004; Sanfey & Teksoz, 2008; Gruen &

Klasen, 2013; Hajdu & Hajdu, 2014; Eurofound, 2017), inflation (Di Tella, MacCulloch, & Oswald, 2001), unemployment (Di Tella et al., 2001; Lucas, Clark, Georgellis, & Diener, 2004; Lelkes, 2006) and others as well.

Based on the analysis of the scientific literature, the authors argue that the scientists frequently come to the conclusion that the individuals' SWB is dependent on the economic situation in the country. It should be noted that the scientific studies demonstrate also the impact of non-economic determinants such as health, physical and emotional state, mentality, educational level, marital status, security level, the political situation in the country, etc. on the individuals' SWB. (Howell & Howell, 2008; Degutis & Urbonavicius, 2013; Ng & Diener, 2014). The impact of non-economic determinants on the individuals' SWB were not considered in this research study.

Research methodology

To analyse relation of economic development to the people's SWB, a specific methodological approach is necessary to select indicators that will be used to characterise the economic development of the countries. It would be methodologically inappropriate to take into account only the GDP indicator, which characterizes only the economic growth and has a number of shortcomings and limitations (Lonska, 2012, 2015; Hanson, 1995; ЛЫЗЛОВ, 2009; Eiropas Parlamens, 2011; CASSE, 2009).

The authors have used the methodology of assessment of the economic development of countries provided by the British economist, one of the founders of development economics, D. Seers. He has claimed that GDP is not an unambiguous indicator of national economic development (Seers, 1969). Indeed, it should be noted that D. Seers analyses not only the economic development as such, but also the impact of economic processes on the overall development of the country, i.e. how the economic growth leads to improving the country's overall prosperity. D. Seers notes that the questions to ask about a country's development are as follows: What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all the three of these have declined from high levels, then beyond doubt this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, especially if all the three have, it would be strange to call the result "development", even if per capita income has doubled (Seers, 1969).

Hence, the authors choose the following indicators to characterise the economic development of the countries to be studied: purchasing power adjusted GDP per capita, people at risk of poverty or social exclusion, the unemployment rate, the Gini index. All of these variables are considered as potentially influencing SWB of people in Latvia, Lithuania, and Estonia. However, the SWB

of people in this study is empirically being interpreted using the variable "personal life satisfaction" from the Eurobarometer database.

The mathematical model of impact of the economic development of the Baltic countries on the SWB of people will be constructed by the authors, using the linear regression equation obtained as a result of a regression analysis of the above mentioned variables for the period 2005 – 2017 for Latvia, Lithuania, and Estonia. The dependent variable – personal satisfaction with life (satisfied inhabitants, as a % of total inhabitants); factor variables – purchasing power adjusted GDP per capita (thousands EUR), people at risk of poverty or social exclusion (%), the unemployment rate (%), the Gini index (%), the variable inclusion method – stepwise.

Research results and discussion

A comparison of trends in personal life satisfaction (satisfied inhabitants, % of total inhabitants) and purchasing power adjusted GDP per capita (EUR) in Latvia, Lithuania, and Estonia during 2005-2018 allows us to get a preliminary idea of how closely the SWB of people is interrelated with one of the economic development indicators of the investigated countries – purchasing power adjusted GDP per capita (see Figures 1, 2, 3).

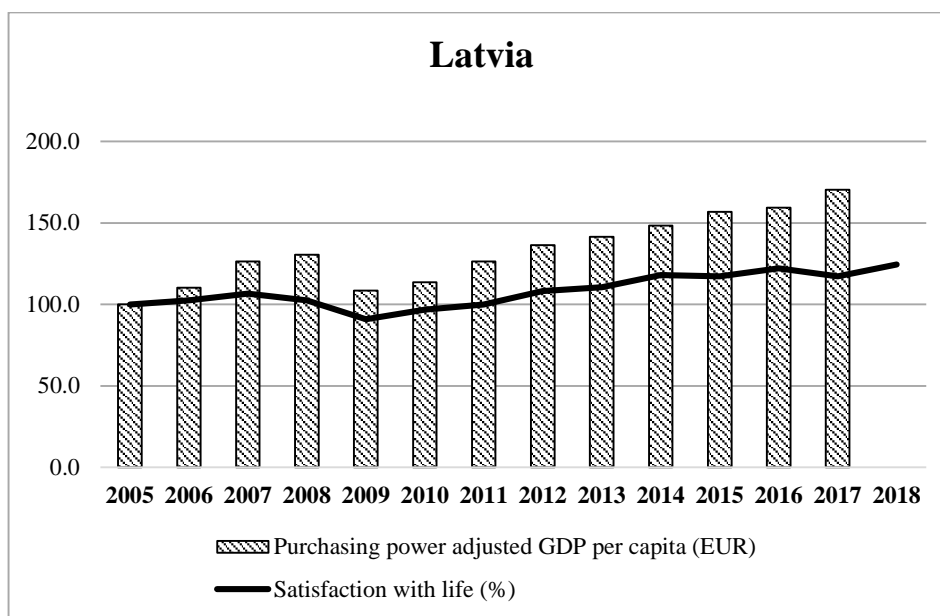


Figure 1 Comparative trends in personal satisfaction with life (satisfied inhabitants, % of total inhabitants) and purchasing power adjusted GDP per capita (EUR) in Latvia, % (2005=100%), 2005-2018 (elaborated by the authors based on the Standard Eurobarometer 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90; Eurostat, 2018c)

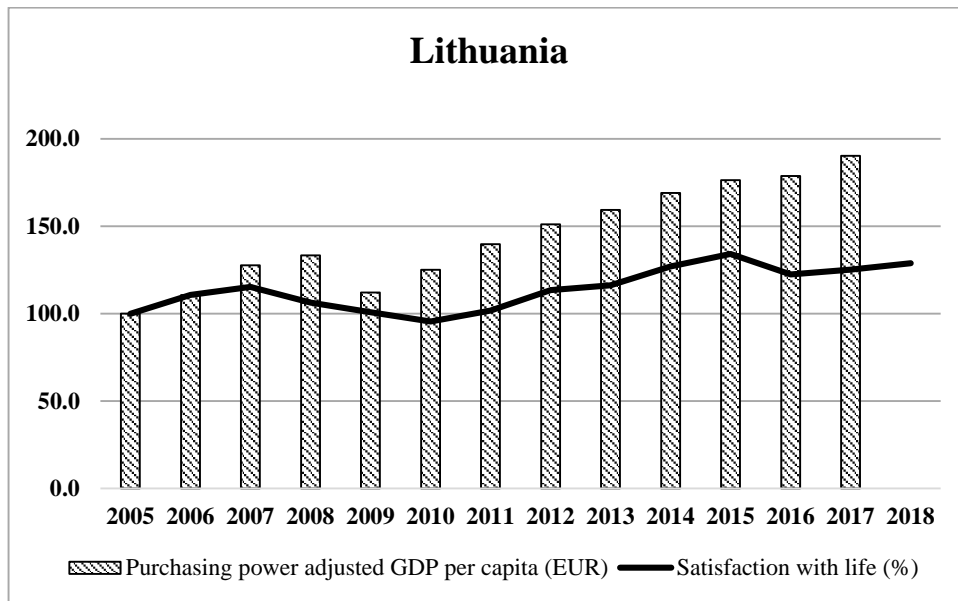


Figure 2 Comparative trends in personal satisfaction with life (satisfied inhabitants, % of total inhabitants) and purchasing power adjusted GDP per capita (EUR) in Lithuania, % (2005=100%), 2005-2018 (elaborated by the authors based on the Standard Eurobarometer 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90; Eurostat, 2018c)



Figure 3 Comparative trends in personal satisfaction with life (satisfied inhabitants, % of total inhabitants) and purchasing power adjusted GDP per capita (EUR) in Estonia, % (2005=100%), 2005-2018 (elaborated by the authors based on the Standard Eurobarometer 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90; Eurostat, 2018c)

Figures 1, 2, and 3 lead the authors to conclude that, in general, the personal satisfaction with life has increased in 2018 compared with 2005. Though, in the period from 2005 to 2018, this indicator has fluctuated – both increased and decreased – in all the three Baltic countries along with the purchasing power adjusted GDP per capita just until the crises of 2009. Afterwards, the situation varied and become more ambiguous. For instance in Latvia, personal satisfaction with life was increasing along with the increase of purchasing power adjusted GDP per capita during the after-crisis period until 2016, and dropped sharply in 2017 despite an increase in GDP (see Fig. 1). In Lithuania, personal satisfaction with life was increasing along with the growing purchasing power adjusted GDP per capita after the crisis until 2015, quite sharply dropped in 2016 despite a small increase in GDP, and almost did not react to the continuous growth of GDP in 2017 (see Fig. 2). However, in Estonia, personal satisfaction with life had both drops and increases, with periods of not reacting to the continuous growth of GDP (see Fig. 3).

Since the purchasing power adjusted GDP per capita in all the three Baltic countries have increased by 65-90% in 2017 compared with 2005, the authors tend to believe that, in fact, there exists a certain individual threshold of prosperity – according to British economist R. Layard – it is $\approx 20\,000$ USD ($\approx 17\,594$ EUR at the exchange rate of the Bank of Latvia) per year per capita. By reaching this threshold, the individual's life satisfaction is not anymore related to the income level so much. Though, in the countries with income per capita below this threshold level, the situation is completely different: the people's SWB is directly dependent on providing the necessary living conditions (Layard, 2005). Latvia was this type of country until 2015, Lithuania – until 2012, Estonia – until 2011 (Eurostat, 2018c). Afterwards, the level of purchasing power adjusted GDP per capita in the Baltic countries reached the level over the "Layard's threshold", and personal satisfaction with life stopped following the changes of purchasing power adjusted GDP per capita – perhaps, the income saturation point mentioned by R. Layard in his book "Happiness: Lessons from a New Science" published in 2005 and discussed by the other authors (Kahneman & Deaton, 2010) was reached. Although Kahneman D. and Deaton A., compared with R. Layard, have pointed out a different income saturation point - $\approx 75,000$ USD per year (Kahneman & Deaton, 2010). It is interesting that, according to the data in Figures 1, 2, and 3, personal satisfaction with life has increased in all the three Baltic countries in 2018, still, the authors have no data on the economic development of Latvia, Lithuania, and Estonia in 2018 yet.

According to D. Seers' methodology adopted in this paper, the national economic development is characterized not only and not even so much by GDP, but also by other indicators; therefore, the authors present a mathematical model of the influence of the economic development of the Baltic countries on the

people's SWB in the form of equation of linear regression obtained as a result of regression analysis as well.

Variables for the regression analysis are designated as follows:

y – personal satisfaction with life, % (dependent variable, i.e. the result);

x_1 – purchasing power adjusted GDP per capita, thousand EUR (independent variable, i.e. the factor);

x_2 – people at risk of poverty or social exclusion, % (independent variable, i.e. the factor);

x_3 – unemployment rate, % (independent variable, i.e. the factor);

x_4 – Gini index, % (independent variable, i.e. the factor).

The equation of linear regression for Latvia for 13 years (from 2005 to 2017) has appeared as follows:

$$y = 33.596 + 2.024x_1 \quad (1)$$

i.e. in Latvia, on average, only the first factor – purchasing power adjusted GDP per capita – had a statistically significant influence on personal satisfaction with life in the period of 2005-2017 (increase in GDP for every 1000 EUR increased personal satisfaction with life by 2.024%).

Excluded, i.e. non-significant, variables are the following:

x_2 – people at risk of poverty or social exclusion ($p=0.151$);

x_3 – unemployment rate ($p=0.914$);

x_4 – Gini index ($p=0.545$).

The linear regression equation for Lithuania for 13 years (2005-2017) appears as follows:

$$y = 42.596 + 1.477x_1 - 0.599x_3 \quad (2)$$

i.e. in Lithuania, on average, the first factor – purchasing power adjusted GDP per capita – had a statistically significant impact on the personal satisfaction with life in 2005-2017 (increase in GDP for every 1000 EUR increased personal satisfaction with life by 1.477%), and the third factor – the unemployment rate (increase in the unemployment rate by 1% led to decrease in personal satisfaction with life by 0.599%).

Excluded, i.e. non-significant, variables are the following:

x_2 – people at risk of poverty or social exclusion ($p=0.624$);

x_4 – Gini index ($p=0.921$).

The linear regression equation for Estonia for 13 years (2005-2017) appears as follows:

$$y = 55.517 + 1.024x_1 \quad (3)$$

i.e. in Estonia, the same way as in Latvia, on average, only the first factor – purchasing power adjusted GDP per capita – had a statistically significant influence on personal satisfaction with life (increase in GDP for every 1000 EUR increased personal satisfaction with life by 1.024%) in 2005-2017.

Excluded, i.e. non-significant, variables are the following:

x_2 – people at risk of poverty or social exclusion ($p=0.957$);

x_3 – unemployment rate ($p=0.859$);

x_4 – Gini index ($p=0.966$).

The comparative results of the regression analysis for Latvia, Lithuania, and Estonia are presented in Table 1.

Table 1 Comparative results of the regression analysis for Latvia, Lithuania, and Estonia, 2005-2017 (data from Formulas 1, 2 and 3)

Country	Personal satisfaction with life without influence of investigated factors, Parameter A	Influence of purchasing power adjusted GDP per capita on personal satisfaction with life, Parameter B
Latvia	33.596	2.024
Lithuania	42.596	1.477
Estonia	55.517	1.024

Thus, the results of the regression analysis carried out by the authors show that, first of all, the strongest dependency of personal satisfaction with life on the analysed factors of the economic development is in Latvia, since the personal satisfaction with life without the influence of investigated factors (Parameter A) is the lowest among the three Baltic countries (see Table 1). However, in Estonia, personal satisfaction with life is the least dependent on the factors of economic development.

These results are in line with the earlier researches indicating that, in the economies with high incomes, higher satisfaction with life and a lower correlation between average individual SWB and national incomes can be observed, compared with low income countries (Dolan et al., 2008). It seems that in the Baltic countries, especially in Estonia, the tendencies that are typical of high income economies start emerging.

The second important finding of the regression analysis is the conclusion that despite the widespread criticism of GDP as an indicator of the country's economic development in the scientific literature, it is the factor (and only this, with the exception of a small effect of the unemployment rate in Lithuania) that has the most significant effect on personal satisfaction with life in all the three Baltic countries – a maximum of influence in Latvia and a minimum in Estonia (see Table 1). Thus, the authors conclude that the indicators of economic development in the Baltic countries do not affect the people's SWB, with the exception of one – the purchasing power adjusted GDP per capita. Its average impact on personal satisfaction with life has remained statistically significant and quite strong since the accession of the Baltic States to the European Union, especially in Latvia, despite all the changes occurring in the nature of this relationship in the post-crisis period (see Figures 1, 2, and 3). This result is also consistent with the findings of the earlier research studies showing that changes in GDP have a strong and statistically significant impact on the people's SWB (Di Tella, Macculloch, & Oswald, 2003).

It is interesting that the Gini coefficient is not the factor that affects personal satisfaction with life in the Baltic countries (see Formula 1, 2, and 3). However, the results of the earlier researches show that, even though the European respondents' satisfaction with life is negatively affected by income inequality, this phenomenon is generally not observed among the US respondents (Alesina et al., 2004). In another research study, P. Sanfey and U. Teksoz have used the data of *the World Values study* and concluded that the income inequality assessed by the Gini coefficient has a negative impact on the sense of happiness of the people, especially in transition economies, i.e. people in the transition economies strive to avoid income inequality (Sanfey & Teksoz, 2008). The sociological research on the income inequality in the Baltic countries has revealed that the income inequality resulting from the neoliberal welfare policy has led to the people's dissatisfaction in the region, thereby preferring a more equal or absolutely equal society (Skuciene, 2018). Moreover, this is observed despite the fact that the values of equality/solidarity and individual responsibility corresponds with the main principles of the neoliberal welfare policy, on the other hand, equality and solidarity are not important values in a society characterized by a preference for freedom and individual efforts (Skuciene, 2018). The authors believe that some inconsistency in the results of the researches on the income inequality in Europe (especially in the so-called "new" EU countries that have joined the European Union in 2004 and afterwards) can be explained by the fact that, in these countries, a stable perception of macroeconomic and other social indicators typical of a market economy have not yet developed: on the one hand, no one wants more of "Soviet equalization" but freedom instead, still on the other hand, income inequality (the inevitable result of freedom and private initiative) is rejected.

Although the researches have consistently demonstrated the high negative impact of individual unemployment on SWB (Di Tella et al., 2001; Di Tella et al., 2003; Lucas et al., 2004; Lelkes, 2006), the regression analysis conducted by the authors has revealed such dependence only in Lithuania, while in Latvia and Estonia the unemployment rate is not a factor that statistically significantly affects personal satisfaction with life (see Formulas 1, 2 and 3).

The following table presents the average values of economic development indicators and personal satisfaction with life in all the three investigated countries for the period from 2005 to 2017.

Table 2 Average values of economic development indicators and personal satisfaction with life in Latvia, Lithuania, and Estonia, 2005 – 2017 (elaborated by the authors based on the Standard Eurobarometer 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90; Eurostat, 2018a, 2018b, 2018c, 2018d)

Indicators	Latvia	Lithuania	Estonia
Purchasing power adjusted GDP per capita, thousands EUR	15.7	17.7	18.8
People at risk of poverty or social exclusion, %	35.8	32.0	23.4
Unemployment rate, %	11.5	10.1	8.6
Gini index, %	36.0	35.0	32.8
Personal satisfaction with life, %	65.3	62.7	74.7

The comparative data presented in Table 2 clearly show that Estonia led among the three Baltic countries in all economic development indicators considered, however, Latvia was behind in all the indicators. Personal satisfaction with life was the highest in Estonia as well, although, as the results of the regression analysis performed by the authors presented in this paper showed, the subjective well-being of Estonian people was the least dependent on economic development indicators. Feasibly, because, among the Baltic countries, these indicators were the highest in Estonia.

Conclusions

As a result of the research study, the authors have come to the following conclusions:

- 1) in the scientific research on the impact of economic indicators on people's subjective well-being, the national GDP rate is the most frequently analysed indicator, although the influence of income inequality, inflation, unemployment, etc. are studied quite often as well;

- 2) the researchers mostly come to the conclusion that the people's SWB is dependent on the economic situation in the country;
- 3) the researches point out to the impact of non-economic determinants – health status, mentality, educational level, marital status, security level, the political situation in the country, etc. – on the people's SWB as well;
- 4) in general, in Latvia, Lithuania, and Estonia, the value of the personal satisfaction with life indicator has increased in 2018 compared with 2005; during 2005-2018, in all the three investigated Baltic countries, this indicator has fluctuated – decreased or increased – along with the purchasing power adjusted GDP per capita until the crisis, i.e. until 2009; afterwards, the nature of dependency of personal satisfaction with life on the GDP per capita started to change across the countries;
- 5) the authors used a methodology for national economic development evaluation provided by one of the founders of Development Economics, D. Seers, who has claimed that GDP is not an unambiguous indicator for assessment of national economic development; to define the economic development of the investigated countries, the authors used the following indicators – purchasing power adjusted GDP per capita, people at risk of poverty or social exclusion, the unemployment rate, the Gini index;
- 6) the analysed economic development indicators for the Baltic countries did not affect the subjective well-being of people, with the exception of one indicator – purchasing power adjusted GDP per capita; its average impact on personal satisfaction with life has remained statistically significant and strong enough since the accession of the Baltic States to the EU, especially in Latvia.

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ORGANIZATIONAL DESIGN, INTERNAL COLLABORATION AND PERFORMANCE: AN EMPIRICAL ASSESSMENT IN LATVIA

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Abstract. *We live in the time of transformations and in response to environmental challenges, traditional forms of organizational designs are changing towards more networked ones. Human resource practitioners claim that 'Organization of the future' requires freedom to act, flexible working practices, outcome-based performance management, and high-trust working relationships, however, there is limited empirical attention directed to the elements of organizational structures, and organizational design aspects have not been explicitly addressed. This research aims to identify which organizational design mechanisms facilitate collaboration within organizations and positively contribute to organizational performance. The quantitative study uses data from a structured survey of Latvian organizations. The research findings provide empirical evidence of the positive impact of decentralization, outcome-based performance management and internal trust on collaboration within the organizational boundaries and performance measured as customer satisfaction. Assessing differences between organisations it was found that internal trust appears to be even more important collaboration ensuring factor for large organizations than for smaller ones. Research results show that managers should establish internal trust-based relationships within their organizations since the effect of trust on collaboration could not be overestimated.*

Keywords: *collaboration; knowledge sharing; organisational design; structure; trust*

Introduction

Knowledge sharing and collaboration are often presented as the means for competing in the knowledge economy (Keith & Dotsika, 2007), however, this requires supporting organizational design, structure, and practices (Chalkiti, 2012). Organizational design and structure has an important role in organizational adaptation (Stan & Puranam, 2017) and is valued as one of the key factors for business success (Nikolenko & Kleiner, 1996). Prior research highlights that firms' organizational designs can significantly facilitate interactions with external and internal knowledge sources (e.g., Foss, Lungggsie, & Zahra, 2013), thus improving organizational performance and operational excellence (e.g., Hernaus, Vuksic, & Stemberger, 2016; Hunter, 2002). Since the organizational design is one of the factors that can support or hinder information sharing (Burke, 2003)

and collaboration, designing and redesigning the organizations can be regarded as a key activity of managers (Vissher & Visscher-Voerman, 2010).

HR practitioners indicate that high-performing organizations today operate in a radically different way than they operated 10 years ago (Deloitte Development LLC, 2017). Hierarchical structures are diminishing, and dominant organizational designs are changing towards much more networked ones (Chartered Institute of Personnel Development [CIPD], 2012). The rapid advancement of technology has caused the emergence of virtual organizations and network structures which facilitate the sharing of knowledge and other resources (Zehra, 2014). Organizational design has always been an important research topic and, given the current strategic challenges, it is vital to understand what organization design capability must involve (Marsh, Sparrow, Hird, Balain, & Hesketh, 2009). Researchers have indicated that a better understanding of the organizational design, the inner organization of the firm and especially structure is needed (e.g., Weigelt & Miller, 2013; Foss et al., 2013). The need to develop our understanding of the contemporary ways of working and how organizational design helps to manage knowledge sharing within and across boundaries is also acknowledged by professionals (CIPD, 2012). In line with the growing importance of collaboration within and across organizational boundaries, there is limited empirical attention directed to the elements of organizational structures, and organizational design aspects have not been explicitly addressed (e.g., Foss et al., 2013).

This research aims to identify which organizational design mechanisms facilitate collaboration within organizations and positively contribute to organizational performance. To reach the aim of this research study, two objectives are set: first, to examine the relationship between organizational design characteristics and internal collaboration, and organizational performance measured as customer satisfaction; second, to assess the dominant forms of organizational designs in Latvia and to explore how ready Latvian organizations are to implement networked designs characteristic to the ‘organization of the future’. This research is based on the quantitative methodology. Data were gathered by online survey in Latvia in spring 2018, and the partial least squares structural equation modelling technique was used for data analysis.

Literature review: Organizational design and structure

According to the literature, organizational design (OD) is defined as “the deliberate process of configuring structures, processes, reward systems, and people practices to create an effective organization capable of achieving the business strategy” (Kates & Gailbraith, 2008, 1). Robbins (1990, 5) defines OD as “constructing and changing an organization’s structure to achieve the

organization's goals". Researchers describe a range of dimensions of OD such as structure, coordination, culture, and power (e.g., Gebauer, Fischer, & Fleisch, 2010; Foss et al., 2013) and address the organization's shape and internal structures as the key elements of OD (e.g. Nikolenko & Kleiner, 1996; Vissher & Visscher-Voerman, 2010; Curado, 2006; Burke, 2003).

The organization's internal structure "reflects how the firm has allocated distinct jobs to subunits and achieved coordination among them" (Weigelt & Miller, 2013, 1414). Researchers categorize organizational structure into three elements - formalization, centralization, and integration (Mahmoudsalehi, Maradkhannejad, & Safari, 2012). Other authors determine the structure by two main aspects – differentiation and coordination (Kretschmer & Puranam, 2008). Further, Pereira-Moliner, Pertusa-Ortega, Tari, Lopez-Gamero, & Molina-Azon (2016) suggest that organizational design characteristics include specialization, decentralization, formalization and link mechanisms. Similarly, Weigelt and Miller (2013, 114) consider differentiation and coordination as two major aspects that define an internal structure, and define differentiation as "segmentation of the organizational system into subsystems", and coordination as "achieving unity of effort of various subsystems" relating both aspects to unit autonomy.

The Chartered Institute of Personnel Development (CIPD, 2017) summarizes the most common types of organizational structures as functional (by the different functions present in the organization, for example, sales, production, HR); geographical or customer-based (by specific customer group, market, geographical location of operation); product-line based (by specific product groups); matrix (combining hierarchical and functional approaches, typically with multiple reporting lines); project-based, and network (decentralized and flexible, includes internal and external stakeholder relationships). Each of the structures has advantages and disadvantages and some are more applicable to dynamic environments, some less. For example, functional structures are typically hierarchical and highly formalized; they imply little delegation, therefore, may find it difficult to share knowledge (Foss et al., 2013). Matrix and project structures, which are more decentralized, have problems of coordination and collaboration. In relation to knowledge sources, researchers found that decentralized firms rely more on external knowledge, while centralized firms derive knowledge from internal sources (Arora, Belenzon, & Rios, 2014).

Prior researches indicate that an organization's performance depends on the collaboration of decision-making authority with the knowledge required to make those decisions (Martin-Perez, Martin-Cruz, & Estrada-Vaquero, 2012; Christie, Joye, & Watts, 2003). The Economist described collaboration as the highest level of coordination drawing the link from coordination to cooperation and collaboration (The Economist Intelligence Unit, 2008). According to the Deloitte survey, 94 percent of surveyed companies reported that "agility and

collaboration” were critical to their organization’s success, (Deloitte Development LLC, 2017). The collaboration includes link mechanisms and informal social relations (Pereira-Molinier et al., 2016). Researchers and practitioners agree that an essential prerequisite for collaboration and knowledge sharing is a high-trust relationship (e.g., Tsung-Hsien, 2013; CIPD, 2017). Positioning collaboration as a critical capability and establishing trust will enable companies to reap the full benefits of our globalized, high technology environment (The Economist Intelligence Unit, 2008).

The effectiveness of certain organizational structure depends on the chosen competitive strategy (Pereira-Molinier et al., 2016) and characteristics of the environment or activities (Foss et al., 2013, 1417). It could be assumed that one set of characteristics of the organizational design may be more suitable for differentiation while others for low-cost strategies.

Management scholars and practitioners agree that in response to environmental challenges, traditional forms or organizational structures will be replaced by more flexible ones (Nikolenko & Kleiner, 1996). We live in the time of transformations and, since organization structures predetermine the way employees work (Hunter, 2002), a shift from hierarchical to networked organizations is going on (Satell, 2017). The ‘organization of the future’ will be characterized by new organizational forms such as a high degree of empowerment, strong communication, a rapid information flow and a network of teams (Deloitte Development LLC, 2016). According to the CIPD, an ‘organization of the future’ requires the following: freedom to act; virtual teams or work groups; outcome-based performance measurement; flexible working practices; technology-enabled work environments; and high-trust working relationships (CIPD, 2017).

For this research, the above-discussed theory translates into three research questions:

RQ1: How organization design characteristics (formalization, decentralization, and specialization) impact internal collaboration and firm performance?

RQ2: How organizational design orientation (process, strategic or customer) impact internal collaboration and firm performance?

RQ3: Which are dominant forms or organizations` structures in Latvia and how ready we are for an ‘organization of the future’?

Methodology

The context of the research study is Latvian private and public-sector organizations. A structured questionnaire with 39 items was developed to measure

variables. Further the logic of variable selection and questionnaire development is described.

Dependent variables

DV1: Internal *collaboration*. Organizations' internal collaboration was modelled as a result of successful organizational design mechanisms and as the dependent variable. It was measured with five items based on the contributions by Pereira-Molinier and colleagues (2016).

DV2: Performance. Krohlbacher and Reijers (2013) measured firm performance as product quality, customer satisfaction, market share, order-to-delivery time, time-to-market speed, and delivery reliability. Taking into consideration the different nature of the firms' activities, performance in this research was measured as perceived product or service quality, and *customer satisfaction and loyalty*, since other aspects were not applicable to all of the sample firms and not measurable using subjective evaluation criteria. The Respondents were asked to rate customer satisfaction and loyalty in five items similar to Kohlbacher & Reijers (2013), including questions related to customer complaints, the ratio of price to value, company reputation, customer loyalty, and overall perceived customer satisfaction. Product or service quality was measured as a result-related variable, still included in the model as a mediating variable between collaboration and customer satisfaction, since satisfaction depends on quality.

Independent variables

Organizational design characteristics: a measurement was made of the level of specialization, decentralization, and formalization with three statements for each variable following Pereira-Molinier et al. (2016). A single item was included to measure the implementation of outcome-based performance management (CIPDD, 2017). The external trust scale had two items measuring whether the organization trusts its partners and whether they perceive their partners trust them. Similarly, internal trust measured trust relationships between colleagues and departments. Organizational design orientations were measured with three single items asking the respondents to assess the reasons for organizational design – process, strategic or customer design orientation.

To measure the above-mentioned variables, a 5-point Likert scale from 1 (disagree) to 5 (agree) was used.

Competitive strategies: Six items were considered to measure the competitive strategies chosen by firms based on previous studies of Kohlbacher & Reijers (2013). The respondents had to indicate, on a scale from 1 (they did not use such a strategy at all) to 5 (the strategy was very important for their establishment), their opinion concerning the cost and differentiation competitive advantages pursued by their organization. For the analysis, the items were divided

into two groups - belonging to differentiation competitive advantage and cost competitive advantage.

Control variables

Several factors that may explain differences in collaboration and performance were included as controls. The organization's age was measured as 'below 5 years', between '5 and 10 years'; between '10 and 15 years' and 'more than 15 years'. The measurement was designed taking into consideration that Latvia gained independence in 1991, thus the maximum age of private companies was around 25 years. Another control was firm size measured as the number of full-time employees. It was measured as 1-9 (microenterprises); 10-49 (small enterprises); 50-249 (medium size organizations) and above 250 which for Latvia are regarded as large organizations (Central Statistical Bureau [CSB], 2015). Ownership rights were measured as state-owned, privately owned and other forms. Moreover, the industry where organizations operated was measured according to NACE classificatory (Lursoft, 2017) and then grouped as seen in Table 1.

Finally, the respondents were asked to evaluate the internal structure of the organization. Definitions were provided for functional, geographical, product line, matrix, project and network structures, and the respondents had to choose the one which most precisely corresponded to the organization they represented. Of the respondents, 53% marked their organizations as having a functional structure; 22% as a matrix structure; 11% a project structure; 5% a product line structure; 4% a geographical structure and 5% stated that their organization had a network structure.

The data were gathered via an online survey distributed to HR specialists and managers from organizations which are members of the Latvian Association for People Management via the association website, as well as to RISEBA University partner organisations and students of Master programme "Human Resource Management" using webpoolsurveys.com platform. The data gathering period was spring 2018. The survey resulted in 322 completed questionnaires which were considered valid for further analysis. Table 1 presents the sample characteristics of the represented organisations.

Table 1 Sample characteristics

Industry	%	Number of employees	%	Ownership	%	Organization's age	%
Production	23	1 - 9	14	Public	26	Less than 5 years	11
Service	55	10 - 49	15	Private	69	5 -10 years	18
Trade	11	50 - 249	28	Other	5	11 – 15 years	15
Government	11	> 250	43			> 16 years	56

Source: author's calculations
n=322

Results and discussion

The partial least squares structural equation modelling (PLS-SEM) technique was chosen to predict the most important factors relevant to collaboration and customer satisfaction and loyalty. The particular technique has been chosen because it implies the features of multiple regression and does not assume normality of data distribution, it is applicable for relatively small samples and if the research area is relatively new (Ringle, Wende, & Becker, 2014). Besides this technique allows including a larger number of indicators and explore a larger number of relationships simultaneously (Hair & Ringle, 2011).

The data were analysed using SPSS and SmartPLS software. Common method bias (Koch, 2015) was addressed with Hartman’s single factor test and it produced a variance equal to 19.7%. Table 2 presents descriptive statistics.

Table 2 *Descriptive statistics*

Construct / Variable		Variable code (in Fig.1)	Mean value	Standard deviation
Organizational design characteristics	Specialization	<i>spec</i>	3.68	1.02
	Decentralization	<i>decent</i>	2.98	1.09
	Formalization	<i>formal</i>	3.00	1.35
	Internal trust	<i>intrust</i>	3.83	0.96
	Outcome-based performance management	<i>pms</i>	4.11	1.08
	expertise	<i>exp</i>	4.31	0.94
Organizational design orientation	Process orientation	<i>procor</i>	4.13	1.03
	Strategy orientation	<i>strator</i>	3.89	1.13
	Customer orientation	<i>custor</i>	3.90	1.16
Collaboration		<i>collab</i>	3.89	0.76
External trust		<i>exttrust</i>	4.23	0.78
Competitive strategies	Differentiation	<i>difstrat</i>	3.78	1.16
	Low cost	<i>lcstrat</i>	3.67	1.11
Quality		<i>qual</i>		
Performance	Customer satisfaction and loyalty	<i>sat</i>	3.87	0.68

Source: author`s calculations

n=322

The model was designed, and algorithms were calculated as seen in Figure 1. To evaluate reflectively measured models, the following was examined: outer loadings (size and significance), composite reliability, convergent validity or

average variance extracted (AVE), and discriminant validity (Hair & Ringle, 2011).

The outer model shows how correctly each construct is measured or how each set of indicators are related to their latent variable. One item was excluded from the construct since the loading was below the minimum threshold value 0.708 (it was spec3); it was retained in the model as a single item construct and re-coded as expertise (exp). The remaining manifest variables exhibited outer loadings high enough and were good measures of their latent variables. A bootstrapping procedure was used to determine statistical significance and all loadings were statistically significant ($p < 0.05$).

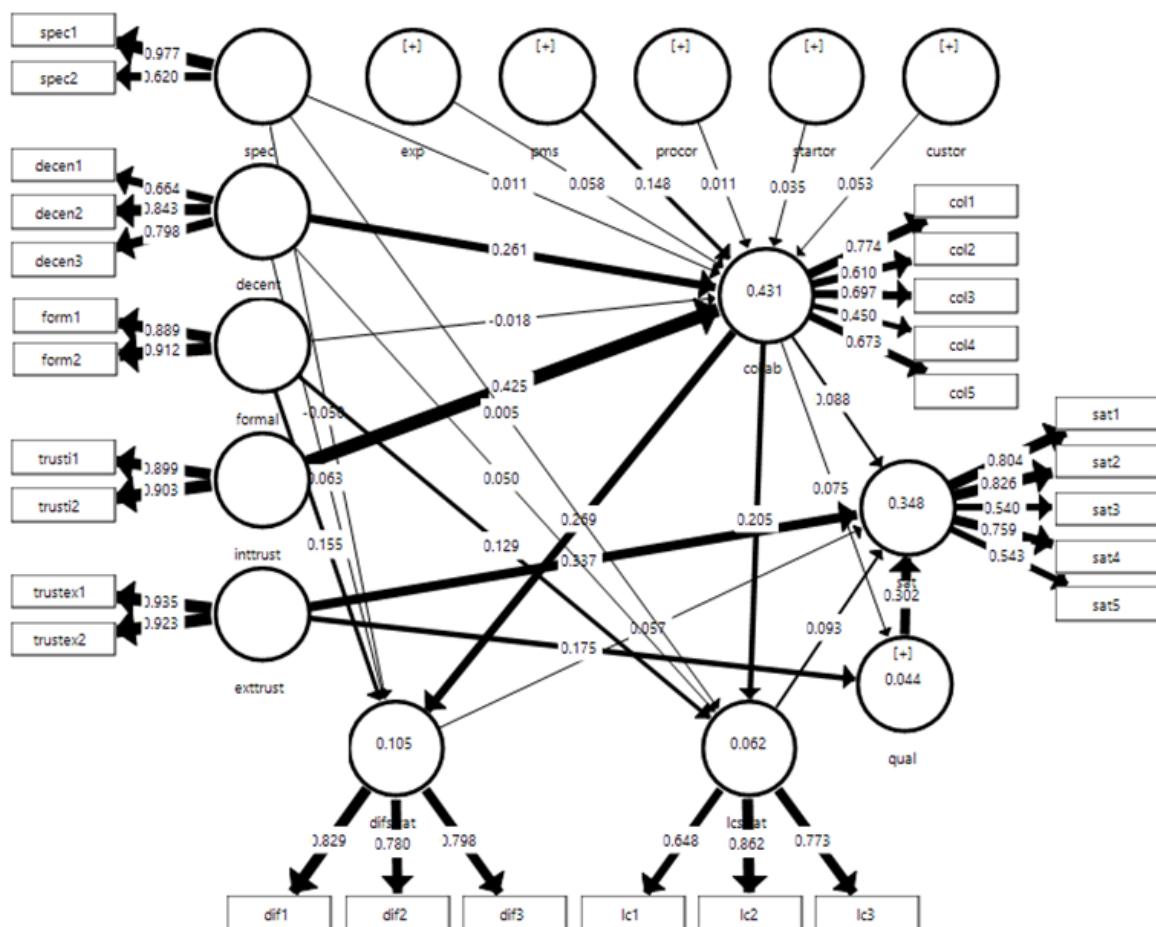


Figure 1 Full model with highlighted relative path coefficients (authors' construction)

Internal consistency reliability was assessed using Cronbach's alpha, and coefficients for the model were the following: sat=0.74; collab=0.66; decent=0.66; formal=0.77; spec=0.61; extrtrust=0.84; intrust=0.77; lcstart= 0.66; difstrat=0.73. Composite Reliability scores of the model were in between 0.79

and 0.93, which were well above the threshold level 0.7, thus indicating sufficient constructs` internal consistency reliability. Convergent Validity of the reflective constructs was examined with average communality or AVE (average variance extracted), and all AVE scores were above 0.5 and thus were acceptable. Discriminant Validity represents the extent to which measures of a given construct differ from a measure of other constructs in the same model. The Heterotrait-Monotrait (HTMT) ratio of correlations was used, and values ranged from 0.022 to 0.739, which were lower than 0.85 (a threshold for conceptually distinct constructs). Besides, Bias Corrected confidence intervals showed that neither confidence interval included a value of 1. Thus, the discriminant validity was demonstrated by the HTMT method. Collinearity statistics revealed that all values were in between 1.14 and 2.12, thus they were less than 5, indicating that collinearity was not a problem for the model.

Since the measurement model showed satisfactory results, it was used for analysis. The primary evaluation criteria for SEM are R2 results. R2 values 0.75, 0.50 and 0.25 for endogenous latent variables indicate substantial, moderate or weak predicting capacity (Hair & Ringle, 2011). As seen from Figure 1 and Table 2, R² values: the model explains 43% of collaboration and has moderate predicting capacity, and it explains 35% of customer satisfaction and loyalty, thus showing weak predicting capacity for this construct. The model has no predicting capacity for competitive strategies, still, the aim was not to explain these strategies, but to find relationships.

Table 3 SEM model results

Constructs	Variables	DV1: collaboration		DV2: customer satisfaction and loyalty	
		Path Coefficient	P Value	Path Coefficient	P Value
Organizational design characteristics	Specialization	0.011	0.827	-	-
	Decentralization	0.261	0.000	-	-
	Formalization	-0.018	0.730	-	-
	Internal trust	0.425	0.000	-	-
	Outcome-based performance management	0.148	0.004	-	-
	expertise	0.058	0.327	-	-
Organizational design orientation	Process orientation	0.011	0.876	-	-
	Strategy orientation	0.035	0.583	-	-
	Customer orientation	0.053	0.293	-	-
Collaboration		-	-	0.088	0.078

External trust		-	-	0.174	0.000
Competitive strategies	Differentiation	-	-	0.057	0.357
	Low cost	-	-	0.093	0.097
Quality				0.302	0.000
	R ²	0.431	-	0.348	-

Source: author`s calculations
n=322

Regarding the RQ1, Figure 1 shows how organizational design elements influence collaboration and customer satisfaction. Results in Table 2 show that three elements of organizational design have a statistically significant impact on collaboration - internal trust shows the highest positive and statistically significant path coefficient, followed by decentralization and outcome-based performance management. This appears to be in line with Mason and Lefrere (2003) who identified trust as the primary enabler of effective collaboration. This finding complements the prior work of Busi and Bitici (2006) who concluded that there is a lack of understanding of what collaboration means and what it implies on the performance measurement by showing the positive link between the two. Moreover, the total effect (which includes both – direct and indirect effect (Hair & Ringle, 2011)) of internal trust, decentralization and outcome-based performance management on customer satisfaction is also positive and significant. Since decentralization means higher levels of autonomy, this result is in line with Weigelt and Miller (2013) who found that autonomy lowers the cost of a hierarchy in banks.

A multigroup analysis was performed to find out any impact of control variables on the relationships. Using “size” as a grouping variable, significant differences were identified in path intrust->collab ($t=2.124$; $p=0.036$) between large organizations and smaller ones. The path coefficient for large organizations was 0.536, while for smaller ones the coefficients were between 0.238 and 0.264. Thus, the results showed that internal trust influenced collaboration more in larger organizations than in smaller ones. A multigroup analysis was also performed with other control variables (organizations’ age; industry; ownership and dominant form or organizations’ structure), however, no significant differences between groups were identified.

In relation to the competitive strategies, collaboration has a positive and significant relationship with both. Interestingly, that collaboration appears to be more important for the execution of a differentiation strategy. As per organizational design characteristics, only formalization shows a positive and significant relationship with both strategies.

Answering RQ2, organizational design orientation does not indicate a statistically significant relationship with collaboration, and the result shows that collaboration is affected by the result, not the reason of OD.

In relation to RQ3, data show that Latvian organizations are not yet ready for an 'organization of the future' since the average decentralization was very low and functional structures were dominant. Globally, according to Deloitte research, many companies have already moved away from functional structures – only 38 percent of all companies are still functionally organized (Deloitte Development LLC, 2016). However, in Latvia, there is still 55% functionally structured organizations and only 5% have network structures. Furthermore, the level of internal trust is low. Interestingly that internal trust was evaluated lower than external trust (Wilcoxon Signed Ranks Test $Z=-6.632$; $p=0.000$) showing that an important component of the future organization is missing in the sample organizations. Nevertheless, the situation with outcome-based performance management systems is satisfactory, they are present in most of the sample organizations and exhibit a positive impact on collaboration and customer satisfaction.

Conclusion

The research study examined the relationship between organizational design characteristics and collaboration within the organization as well as performance measured as customer satisfaction. The findings provide empirical evidence of the positive impact of decentralization, outcome-based performance management and internal trust on collaboration within the organization. Moreover, internal trust appears to be even more important for larger organizations than for smaller ones.

The research study adds to the scarce literature of organizational design by highlighting the organizational design elements which are crucial for collaboration and appear to be relevant for customer satisfaction in today's dynamic environment. It provides support for the view that effective organizations are those with higher levels of autonomy (Weigelt & Miller, 2013) and outcome-based performance management.

Regarding managerial implications, managers should acknowledge the importance of organizational design and the firm's internal structure since it affects collaboration which, in turn, is vital for knowledge sharing. Decentralized organizational designs in today's dynamic environment facilitate collaboration and even positively influence customer satisfaction. Further, middle and senior managers should establish internal trust-based relationships within their organizations since the effect of trust on collaboration could not be overestimated.

However, the findings should be considered in light of the research limitations. Most important limitations are related to the use of the electronic

survey method, sample size, and geographical coverage. Data were gathered only in Latvia, and this limits the generalizability of the findings. Moreover, the result variable was measured only as customer satisfaction; future research should include other indicators, such as profit, market share, growth etc. Further studies could be extended to other locations and include more manifest variables.

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STUDĒJOŠO MOBILITĀTE KĀ AUGSTĀKĀS IZGLĪTĪBAS INTERNACIONALIZĀCIJAS ELEMENTS

Student Mobility as the Element of Internationalization of Higher Education

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Abstract. *Scientific researches on the potential of export of higher education became topical more than 10 years ago, but this issue remains very topical nowadays as well, and it is essential to keep searching for solutions for the future development of this area. The aim of the paper is to analyse the general trends of student mobility in Latvia in the context of the student mobility in the world. Hypothesis of the research - comparative research on the student mobility rates in the research period from 2011 to 2016 shows that there is higher growth of student mobility in Latvia than on the global scale. The number of mobile students in the research period is increasing both in Latvia and in the world, but the statistical survey in Latvia confirms that this growth in Latvia is more significant.*

Keywords: *higher education, internationalisation, mobility.*

Ievads

Introduction

Mūsdienās, dinamiskajā ģeopolitiskajā vidē, par nozīmīgu faktoru augstākās izglītības iestādēs ir kļuvusi internacionalizācija.

Vēsturiski studentu piesaiste augstākās izglītības nozarē konkrētā valstī aktualizējās pēc otrā pasaules kara. Tādas Eiropas nozīmes pilsētas kā Dublina, Berlīne, Mančestra, Stokholma piedzīvoja strauju attīstības kāpumu, pateicoties savām universitātēm, kas piesaistīja citu valstu studentus, t.sk., zinātniekus, kas, savukārt, deva būtisku intelektuālu ieguldījumu konkrētās augstākās izglītības iestādes, pilsētas un valsts attīstībā kopumā. Latvijai kā relatīvi mazai valstij, meklējot konkurētspējīgās priekšrocības, augstākās izglītības nozare tiek minēta

kā perspektīva un eksportspējīga tautsaimniecības nozare, kas var dot būtisku pievienoto vērtību (Lonska, 2010). Par augstākās izglītības eksportspēju zinātniskie pētījumi aktualizējās jau pirms vairāk kā desmit gadiem, tomēr šis jautājums aktualitāti saglabā joprojām, un ir būtiski meklēt risinājumus šīs jomas attīstībai arī nākotnē.

Mobilitāte jeb studējošo pārvietošanās starp valstīm studentam sniedz iespēju gūt pieredzi – akadēmisko, valodas, kultūras – studējot ārvalstīs. Studentu mobilitāte veicina personisko izaugsmi, kā arī uzlabo darba iespējas nākotnē. Augstākās izglītības iestādes ģeogrāfiski atrodas noteiktā vietā, bet to mērķauditorija ir noteiktu pasaules reģionu telpa un tās iedzīvotāji. Nosacīti varētu uzskatīt, ka 21.gs. ir mobilitāšu kulminācijas periods, jo iespējams pēc e - vides arvien plašākas asimilēšanās izglītības telpā, var mazināties fizisko mobilitāšu skaits kopumā. Mobilitāte ir cilvēku pārvietošanās uz kādu no augstskolām ārzemēs mācību nolūkos.

Raksta mērķis – analizēt studējošo mobilitātes vispārējās tendences Latvijā pasaules konteksta ietvaros.

Pētījuma hipotēze – veicot salīdzinošo izpēti par studējošo mobilitātes rādītājiem pētījuma periodā no 2011. līdz 2016.gadam, Latvijā ir novērojams relatīvi augstāks mobilo studentu pieauguma temps nekā vidējie rādītāji pasaulē kopumā.

Pētījuma metodes – monogrāfiskā metode, salīdzināšanas un kontentanalīzes metodes, papildus ir pielietotas grupēšanas, matemātiskās un grafiskās interpretācijas metodes.

Pētījuma ierobežojums raksta ietvaros paredz analizēt tikai studējošo mobilitāti, neaptverot visa veida augstākās izglītības personāla mobilitāti.

Mobilitātes un internacionalizācijas būtība augstākās izglītības telpā *Mobility and the essence of internationalization in higher education*

Internationalizācija nozīmē piešķirt starptautisku raksturu. Augstākās izglītības internacionalizācija ir augstskolas pieejamība pasaulei, ar mērķi uzlabot savu konkurētspēju nacionālā un starptautiskā līmenī. Internationalizācija savā būtībā ietver ārzemju mācībspēku un studentu piesaisti, sadarbību studentu un mācībspēku apmaiņā, kopīgu mācību programmu veidošanu, prakses iespējas u.c.

Mobilitātes un internacionalizācijas aktivitātes nosacīti var klasificēt pēc iesaistītajām pusēm un mērķiem.



*1.attēls. Mobilitātes mērķi un iesaistītās puses (autoru izveidots)
Figure 1 Mobility goals and the stakeholders (compiled by the authors)*

Mobilitātē iesaistītās puses ir studējošie, akadēmiskais personāls, zinātniskais personāls un izglītības iestāžu administratīvais personāls. Mobilitātes mērķus nosacīti var dalīt tiešajos (studiju programmu apguve ar grāda/kvalifikācijas ieguvu) un netiešajos (valodas apguve, darba iespējas, dzīves vietas maiņa, kultūras apguve u.c.)

Ņemot vērā to, ka mūsdienās augstākās izglītības piedāvājums kļūst aizvien daudzpusīgāks un plašāks un studenti aizvien vairāk vēlas gūt zināšanas un pieredzi ārpus savas valsts robežām, ir iespējams runāt par augstākās izglītības internacionalizācijas attīstību. Pašreiz internacionalizācija ieņem prioritāro lomu gan augstākajās izglītības iestādēs un to stratēģijās, gan arī valsts mēroga politikā, jo starptautiskajai konkurētspējai ir nozīmīga loma pašreizējā globalizācijas laikmetā.

Viena no nozīmīgākajām programmām, kas ir radījusi būtisku ietekmi uz studējošo un augstākās izglītības iestāžu personāla mobilitāti Eiropā ir ERASMUS (*European Community action scheme for the mobility of university students*). Minētā programma tiek uzskatīta par vienu no veiksmīgākajām un plašā sabiedrībā zināmajām programmām, kas sekmē iedzīvotāju mobilitāti Eiropas teritorijā.

Kā sākums tiek minēts 1987. gads, kas pirmajā gadā tajā piedalījās tikai 3200 studentu, bet pēdējo 30 gadu laikā tā ir izvērtusies par programmu, no kuras gūst labumu gandrīz 300 000 augstākās izglītības studentu gadā (Keiča & Kroiča, 2018).

Valstis, kurās ir augsts starptautisko studentu skaits, ir ieguvējas no to pievienotās vērtības, it īpaši izglītības kvalitātes un zinātnes jomā, taču valstīs, kurās starptautisko studentu skaits ir mazs, nespēj gūt pienesumu, ko rada starptautiskie studenti un nevar to izmantot, lai pilnveidotos un sniegtu ieguldījumu savā attīstībā (Hazelkorn, 2008). Viennozīmīgi minētie ieguvumi ir tiešie, bet ir jāatzīmē netiešie ieguvumi, kas pozitīvi ietekmē iesaistīto valstu ekonomiku un cilvēkkapitālu kopumā.

Par vienu no galvenajiem mērķiem augstākajās izglītības iestādēs ir kļuvusi internacionalizācija, jo tādā veidā tiek nodrošināta iespēja mācībspēkiem un studentiem apgūt starptautiskajā vidē pieprasītas iemaņas un prasmes, paaugstinot konkurētspēju gan Latvijā, gan ārzemēs.

Kāpēc studenti dodas studēt uz ārzemēm? Pastāv nozīmīgi “atgrūšanas” un “pievilkšanas” faktori. Galvenie “atgrūšanas” faktori ir ierobežotas studiju iespējas savā valstī, vēlme dzīvot citur un iepazīt citu kultūru, kā arī “pozicionēšanās” – pārvietošanās uz citu valsti vai reģionu, lai palielinātu nākotnes iespējas studēt vai strādāt kādā konkrētā teritorijā (piemēram, pārvietoties uz Latviju, lai iegūtu ES atzītu diplomu ar mērķi vēlāk studēt vai strādāt Vācijā vai Apvienotajā Karalistē). Nozīmīgākie “pievilkšanas” faktori ir studiju pieejamība svešvalodā, ko studenti jau zina vai vēlas iemācīties, piemēram, angļu vai franču, kvalitatīvas, specializētas studiju programmas, starptautiski atzīta iegūstamā kvalifikācija, pieņemama studiju maksa, atvieglots vīzu iegūšanas process, kā arī pozitīvs valsts tēls” (Auers & Gubins, 2016).

Latvijā ir aptuveni 86 000 studentu, no kuriem aptuveni 70% studē valsts finansētās augstākās izglītības iestādēs. Visām 60 augstskolām ir ļoti svarīgi piesaistīt gan vietējos, gan starptautiskos studentus, taču, ņemot vērā sarežģīto demogrāfisko situāciju, starptautisku studentu piesaiste ir kļuvusi arvien svarīgāka (Paiders & Apsīte-Bēriņa, 2015).

Studentiem laika gaitā mainās vēlmes, viņu mobilās trajektorijas un ģeogrāfiskās vietas mainīsies visas dzīves laikā atkarībā no mainīgajām vēlmēm (Prazeres et al., 2017). Pētījumi studējošo mobilitātes jomā iezīmē arvien jaunas dimensijas un caurvijas starp nozarēm, kas apliecina šīs tēmas aktualitāti un pētāmos jautājumus arī nākotnē.

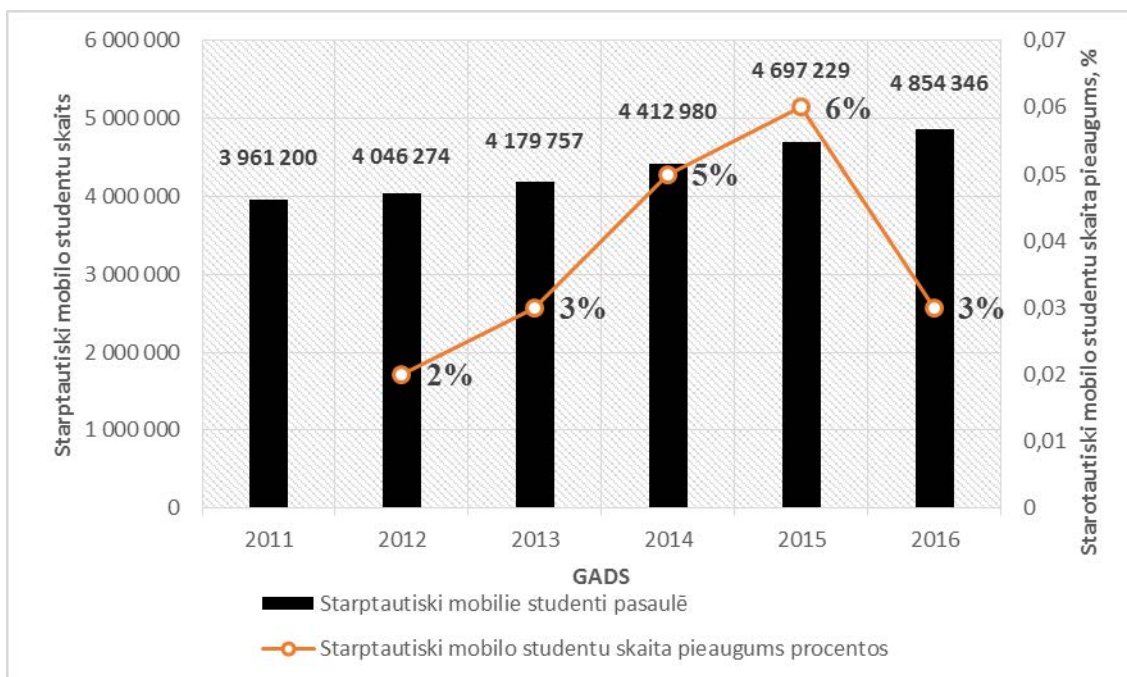
Pētījuma rezultāti par ārvalstu studentu mobilitāti raksturojošiem statistikas rādītājiem Latvijā

Results of the research on statistical indicators characterizing the mobility of foreign students in Latvia

Ir vairāk nekā četri miljoni studentu, kas pārvietojas pāri savas valsts robežai, lai iegūtu izglītību (Global migration indicators, 2018). Pēc atsevišķām

prognozēm ārvalstu studentu skaits nākamajos gados varētu turpināt pieaugt, sasniedzot 8 miljonus desmit gadu laikā.

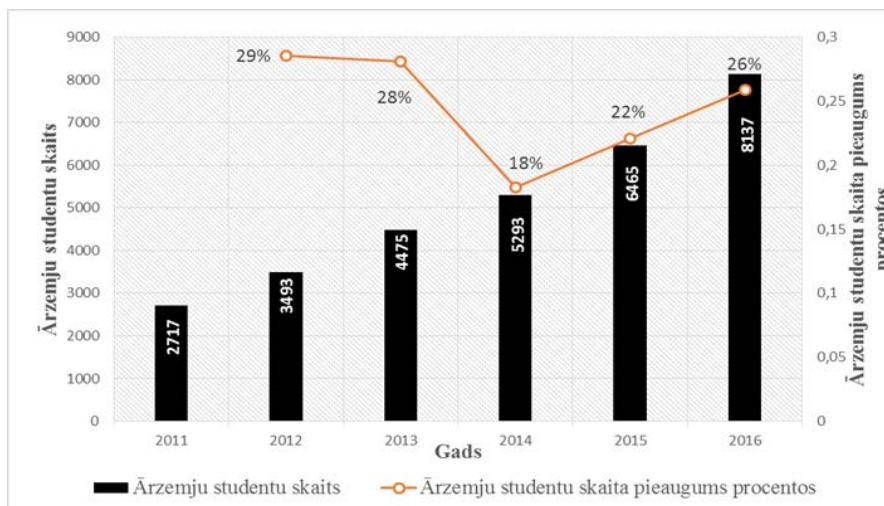
Ienākošā starptautisko studentu mobilitāte ir palielinājusies gandrīz visās OECD un partnervalstīs, kas ir augstākās izglītības mērķa valstis, un Latvijā tā ir gandrīz dubultojusies no 2013. līdz 2015. gadam, kas ir viens no augstākajiem izaugsmes rādītājiem visās OECD un partnervalstīs. Šis pieaugums atspoguļo Latvijas vērienīgos mērķus padarīt augstāko izglītību starptautisku. 2015. gadā Latvijā bija 6465 starptautisko studentu, kas bija 8% no visiem augstākajā izglītībā studējošajiem, salīdzinot ar 6% OECD valstīs. Lielākajā daļā OECD valstu starptautisko studentu uzņemšana ir daudz augstāka doktorantūras programmās nekā zemākajos augstākās izglītības ciklos. Taču, Latvijā starptautisko studentu īpatsvars doktorantūras programmās (11%) ir zemāks nekā to īpatsvars maģistrantūras programmās (16%) (Normandeau S., 2018).



2.attēls. *Mobilu studentu skaita dinamika absolūtajos skaitļos un pieaugums procentos pasaulē 2011. – 2016.g. (autoru izveidots pēc Augstākās izglītības..., 2011-2016)*

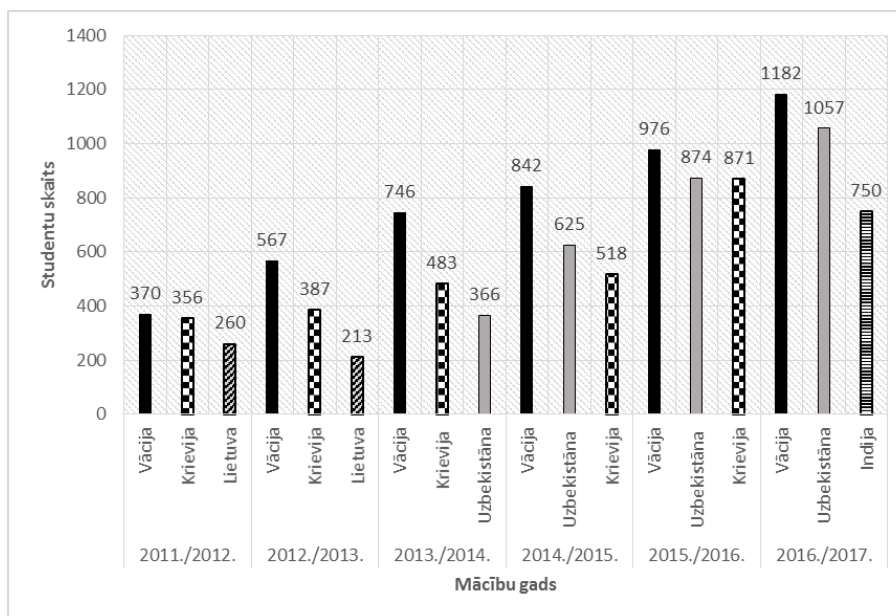
Figure 2 *Change in the number and annual percentage of mobile students in the world in the period from 2011 to 2016 (authors' construction based on Augstākās izglītības..., 2011-2016)*

Mobilu studentu pieaugums pētāmajā periodā sastāda 22.5% (2.att.), turklāt pastāv nosacīti vienmērīga ikgadējā pieauguma tendence 2 – 6 % robežās (3.att.).



3.attēls. Ārvalstu studentu skaita dinamika absolūtajos skaitļos un pieaugums procentos Latvijā 2011. – 2016.g. (autoru izveidots pēc Augstākās izglītības..., 2011-2016)
 Figure 3 Change in the number and annual percentage of foreign students in Latvia in the period from 2011 to 2016 (authors' construction based on Augstākās izglītības..., 2011-2016)

Mobilo studentu skaits Latvijā laika periodā no 2011.gadam līdz 2016.gadam ir pieaudzis 3 reizes. Ikgadējais pieauguma tempi svārstās no 18 % līdz 29%, kas apliecina augstākās izglītības aktivitāšu stratēģisku virzību un studējošo vides internacionalizāciju.



4.attēls. Latvijas augstskolās studējošo ārvalstu studentu izcelsmes trīs visvairāk pārstāvētās valstis (autoru izveidots pēc Augstākās izglītības..., 2011-2016)
 Figure 4 Three most popular countries of origin of foreign students studying at higher education institutions of Latvia (authors' construction based on Augstākās izglītības..., 2011-2016)

Pētāmajā periodā visvairāk pārstāvētās valstis ir Vācija, Lietuva, Krievija. Kopš 2013./2014. gada būtiski ir pieaudzis studējošo skaits no Uzbekistānas un kopš 2016./2017. gada būtiski ir palielinājies ārvalstu studējošo skaits, kuru mītnes zeme ir Indija.

Secinājumi

Conclusion

1. Augstākās izglītības internacionalizācija ir augstākās izglītības iestāžu pieejamība pasaulei, ar nolūku uzlabot savu konkurētspēju nacionālā un starptautiskā līmenī. Internacionalizācija ir kļuvusi par vienu no galvenajiem mērķiem augstākajās izglītības iestādēs.
2. Strauji augoša Latvijas tautsaimniecības pakalpojumu nozare ir augstākās izglītības eksports. Augstākās izglītības nozarē ņemot vērā valsts fiskālo politiku, būtisks valsts finansējuma pieaugums tuvākajā periodā nav gaidāms, līdz ar to, augstākās izglītības iestādēm ārvalstu studentu piesaiste nodrošina papildus finanšu līdzekļus.
3. Mobilitātē iesaistītās puses ir studējošie, akadēmiskais personāls, zinātniskais personāls un izglītības iestāžu administratīvais personāls. Mobilitātes mērķus nosacīti var dalīt tiešajos (studiju programmu apguve ar grāda/kvalifikācijas ieguvī) un netiešajos (valodas apguve, darba iespējas, dzīves vietas maiņa, kultūras apguve u.c.)
4. Būtiski mainās arī piesaistīto studentu mītnes zemes ģeogrāfiskais areāls. Bez ES valstu studentiem, Latvijas augstākās izglītības iestādēs arvien vairāk tiek piesaistīti studenti no trešajām pasaules valstīm, t.sk. no Āzijas reģiona.
5. Mobilo studentu pieaugums pētāmajā periodā sastāda 22.5%, turklāt pastāv nosacīti vienmērīga ikgadējā pieauguma tendence 2 – 6% robežās. Mobilo studentu skaits Latvijā šajā laika posmā ir pieaudzis 3 reizes. Ikgadējais pieauguma tempi svārstās no 18% līdz 29%, kas apliecina augstākās izglītības aktivitāšu stratēģisku virzību un studējošo vides internacionalizāciju, kā arī apstiprina sākotnēji izvirzīto hipotēzi.

Summary

The internationalization of higher education is the access of higher education institutions to the world with the aim of improving its competitiveness at the national and international level. Internationalization has become one of the main goals of higher education institutions. The aim of the paper is to analyse the general trends of student mobility in Latvia in the context of the world. Due to the limit of the research, the paper intended to analyse only the mobility of students, not covering the mobility of staff of higher education institutions.

Main conclusions:

The export of higher education services is a rapidly growing sector of the service economy in Latvia. As there is no expected significant increase in public funding for higher education institutions in the nearest future, the attraction of foreign students provides additional financial resources to Latvian higher education institutions.

The mobility target audience includes students, academic staff, scientific staff and administrative staff of higher educational institutions. Mobility goals can be divided into direct (completion of study programmes with obtaining a degree / qualification) and indirect (acquisition of foreign language skills, job opportunities, change of the place of residence, cultural education, etc.)

The geographic scope of the countries of origin of the attracted students has changed significantly during the research period. In addition to students from EU Member States, students from third world countries are increasingly attracted to higher education institutions in Latvia, including the students from the Asian region.

The growth of mobile students in the surveyed period is 22.5%, and there is a relatively steady annual growth trend of 2 - 6%. The number of mobile students in Latvia has increased 3 times during this period. The annual growth rate ranges from 18% to 29%, which confirms the strategic direction of higher education activities and the internationalization of the student environment, as well as confirms the suggested hypothesis.

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KEY TRENDS IN THE DEVELOPMENT OF MARKETPLACES AS A TRIGGER FOR THE TRANSFORMATION OF GLOBAL BUSINESS

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Abstract. *This research analyses marketplaces in Europe and some other developed countries in order to determine their impact on global trade and business. The paper aimed to answer an important question - how e-commerce could transform modern business taking into account digital changes, a boom of cryptocurrency erasing trade borders and globalization. Sufficient evidence of this transformation is illustrated. A subsidiary objective of this research involves the building of a logical model describing correlation between marketplaces as integral part of e-commerce and global business development. Statistical data were based on variable indicators describing four categories of trading platforms, particularly online stores, price aggregators, marketplaces and classifiers. In addition, global indexes and macro-economic criteria were used in analysis. The methodology of statistical and regression methods was employed for economic-mathematical modelling. This allowed revealing the most important indicators affecting e-commerce and to create reasonable predictions for global business and trade. The research highlights important trends in the development of e-business under the digital economy.*

Keywords: *e-commerce, marketplace, global business, Internet trade, business transformation, digital economy, Industry 4.0*

Introduction

Global business and trade relations are currently undergoing a number of significant changes. Widespread availability and extremely rapid diffusion of information technology induced a major shift in traditional ways of doing business. To be more specific, humanity is entirely involved in the technological era of the fourth industrial revolution, more commonly known as Industry 4.0. This contributes to germinating such progressive types of economic activity as e-

business and e-commerce. Moreover, the possibility of cooperation between economic agents, regardless of distance or geo-location, has been achieved through the global informatisation and widespread use of the Internet. Thus, developed computer and communication infrastructure of the region is becoming the key factor of effective, clear and productive business.

These days, the marketplace is one of the most fast-growing form of e-business because the main advantage of the marketplace model is opportunity to buy everything you need in one place, saving time, which consumers have less and less every day. Eventually, the marketplace mediates between the consumer and those who offer variable products or services to satisfy his/her growing needs. However, we should consider the marketplace in a more complex way because such a trading platform merges international economic agents and become multinational and global. For instance, a consumer and a seller could be both an individual, a company or even an individual country. At the same time all electronic deals should be provided with special informational technology, Internet solution and cyber security. For this reason, the marketplace is rather an integrated than separated element of e-business.

Analysis of the key trends, benefits and risks of marketplaces and e-commerce as a whole is an extremely relevant task because it enables us to determine the ways of increasing the efficiency of local and global business and predict important economic shifts.

Thinking this way, the research study aims to investigate the phenomena of e-commerce popularity and marketplace effectiveness, outline the historical background of e-business growth and highlight the most important trends of business transformation under the digital influence.

Literature review

In recent times, issues of a digital economy become more and more topical among the scientific community.

We have to admit remarkable research by Melin Hanne, devoted to the idea of reformation of EU policy for a digital single market. She proves that digitalisation generates a new type of entrepreneurship, which functions in the digital economy ecosystem. Her analysis was carried out on the basis of the biggest trading platform eBay and shows how small businesses are now able to attract customers around the world using marketplace facilities (Melin, 2015). Thinking this way, this important task leads to assessment of marketplace efficiency (Miller & Niu, 2012).

Many EU reports confirm that E-commerce considerably broadens business horizons and change the market. Firstly, it empowers opportunities for market

participants and contributes to technological acceleration, creating new jobs, infrastructure improvement (Strategic Policy Forum..., 2015).

However, the new opportunities of e-business germinate new responsibilities related to cyber security and customer protection. Recent scientific researches unanimously claim that crucial preconditions for e-business development are consumer trust and data protection (Kalimo & Majcher, 2017). In this case, research by Italian scientist should be mentioned. Paolo Occhiuzzi raised an interesting issue of “depersonalization” of purchases on the Internet market that weakens the purchaser’s position and increases the trader’s information asymmetry (Occhiuzzi, 2016). Thus, data security provides clear terms of transactions and filters the most comprehensible and precise information about the products.

Moreover, other scientists emphasise that modern marketplaces will face with inability to support high standards of Industry 4.0 because of the gap between technological achievements and their application in practice (Cisneros-Cabrera, Ramzan, Sampaio, & Mehandjiev, 2017). The results of that research reveal digital marketplace platforms have not yet moved completely from simple IT approaches. Thus, there is still significant work must be done to incorporate marketplaces into more advanced virtual organizations enabled to form sustainable coalitions.

Despite the economists envisage global business transformation under the e-commerce growth, this subject remains quite difficult for setting clear recommendations and should be thoroughly investigated from different perspectives.

Methodology

Taking into account that marketplaces are intrinsically linked to e-business and e-commerce, we accomplished a complex analysis of the problem based on the empirical method of scientific research. Economic-mathematical modelling was applied for better describing trends, dynamics of criteria and coherences between them. Data collection implied statistical processing of information synthesised from the official open Internet resources such as Eurostat, Statista and World-statistics. We also used elements of deductive and inductive methods, logic approaches, methods of prospective and retrospective analysis in order to arrange analytic conclusions, to create a logical model of business transformation under digitalisation and to highlight key trends of this process. Results of the research methodology will be outlined below.

Research results

Modern e-commerce incorporates the expanding system of trading platforms including online stores, price aggregators, marketplaces and electronic classifiers. All these e-market players directly affect the business transformation at the local and global level. In order to underpin this clue, we should look back in the past to find clear evidence of this transformation process.

Looking retrospectively, the first “prototype” of the e-commerce system appeared in the 1960s in the United States and was used primarily by the transport companies in order to book tickets and for informational exchange among transport services throughout the country. For the first time in the history, American Airlines together with IBM successfully integrated an automatic flight reservation system and this SABRE (Semi-Automatic Business Research Environment) changed the global market of flights and world transport business.

The next stage of business transformation alludes to the “Internet boom” in the 1990s. In that regard, the world had been swept by a wave of new virtual fitches that allowed users to order goods and services on the Internet. However, the most significant evidence of a business transformation is linked to the emerging of online stores. Basically, such stores were ancestors of the modern trading platforms, particularly marketplaces. Furthermore, they provoked considerable decrease in production costs, and that was quite essential for small and medium sized business. On the other hand, online trade scaled the market and made it more flexible and competitive under the digitalization.

It should be noted, that the idea of a marketplace was widely presented in the 2000s after release of the book by Chris Anderson “The Long Tail: Why the Future of Business is Selling Less of More” (Anderson, 2008). The book reveals the most important condition of sales growth, which means a wide range of products on the shelf, even if this shelf is somewhere on the Internet. Thus, the more products of various categories are offered by the store, the greater the chance that consumer will buy something.

These days, e-commerce is considered primarily as commercial cooperation between market participants, aimed to sale and purchase goods or services (both material and informational) using the Internet. However, e-commerce is also a core of the digital economy and Industry 4.0, which widely includes Electronic Data Interchange (EDI), Electronic Funds Transfer (EFT), e-trade, e-cash, e-marketing, e-banking, e-insurance etc. Moreover, such electronic activities relate to all modern levels of economic transactions: business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), business-to-government (B2G), government-to-consumer (G2C). In addition, we could distinguish one more level of cooperation under the digitalization – machine-to-machine (M2M). This level implies informational exchange between IT services

and provides important electronic operation in e-commerce, particularly at the marketplaces.

We have to admit that the authoritative worldwide organization Ecommerce Foundation envisaged the future development of the e-commerce market and highlighted the following influencing factors, which were chosen based on the results of economic-mathematical modelling.

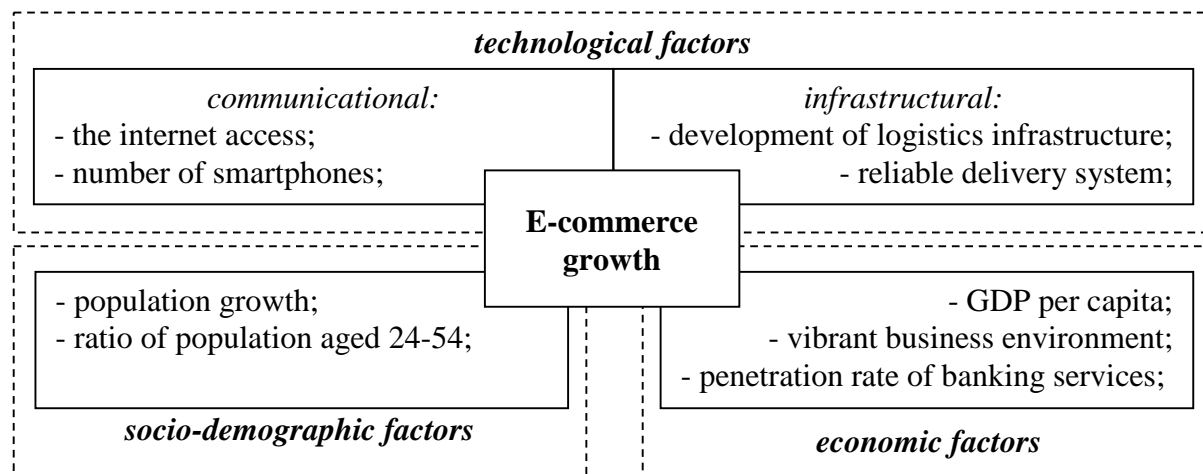


Figure 1 Model of factors influencing e-commerce (authors' construction based on the report by Ecommerce Europe, 2018)

As we can see, e-commerce growth depends on socio-demographic criteria, technological and economic indicators. Thus, dynamics of these criteria will delineate some essential shifts in e-business.

Below, we illustrate the most highlighting evidence of such influence.

According to regressive analyses, the driving force behind e-commerce development is gradual growth of the world population from 5.233 to 5.530 billion people over the last six years, which is about 5.67% per year. Moreover, previous research allowed distinguishing a strong trend in population change that would be relevant for the EU Member States (Mietule, Maksymova, & Holikova, 2018). In particular, the share of the socially active population aged 25-54 at the end of 2018 is 42.8%, which also causes more intensive purchasing through the Internet. It should be noted that the share of world Internet coverage continues to grow, namely in 2015, it was 48.62%, and by the end of 2018 it was almost 60%, but the growth rate of this indicator slowed down and was 6.7% in 2018.

According to the Ecommerce Foundation, in 2018 more than 50% of respondents worldwide bought products online using home computers, 46% - smartphones, and only 3% - tablets (Ecommerce Europe organization, 2018). It is noteworthy that almost a half of customers make purchases using a smartphone because they intend to be more non-location-dependent. These dynamics definitely contributes to the development of online trade.

Another evidence of e-business transformation is associated with the growing popularity of social networks. During 2013-2018, the number of people who used at least one social network increased from 1.59 to 2.62 billion (Fig.2).

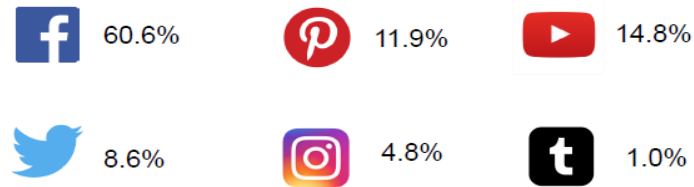


Figure 2 Average share of the world population registered on media platforms in 2018 (We Are Social, 2018)

Taking into account such popularity, there is no doubts that social networks are incredibly effective in marketing and sales management. Eventually, social media change the business environment, improve the competitive situation and even expand the market because small businesses get the chance to enter the e-market and promote their products on the equal basis with major companies. In this case, marketplaces address this idea and represent a wide range of suppliers from small producers to giant manufactures on the common trading platform.

As demonstrated above, GDP is also an important factor influencing the e-business. Table 1 shows GDP per capita by world region.

Table 1 GDP by region in 2018 (Eurostat, 2018)

Region	GDP, trillions \$ USD	GDP per capita, \$ USD
Europe	13.734	29,065
North America	22.004	37,071
South America	3.021	12,746
Asia Pacific	22.994	22,806
Middle East & Africa	1.364	18,038

According to Table 1, the largest amount of GDP in 2018 was generated in Asia Pacific region (22.994 trillion USD), but the highest GDP per capita was obtained in North America – 37.07 thou. USD. Europe remains average with the second largest GDP per capita – 29.07 thou. USD. Since 2010 world GDP has risen from 52.7 to 63.1 trillion USD, and this trend will continue. Thus, correlation between GDP and E-commerce growth could be observed in the following. At the same time, as the growth rate of GDP grew by 1.6% annually, in 2018 Internet sales increased by 23.4%. According to experts' forecast, the market will continue to grow, however the growth rate will gradually decrease in the future (Figure 3).

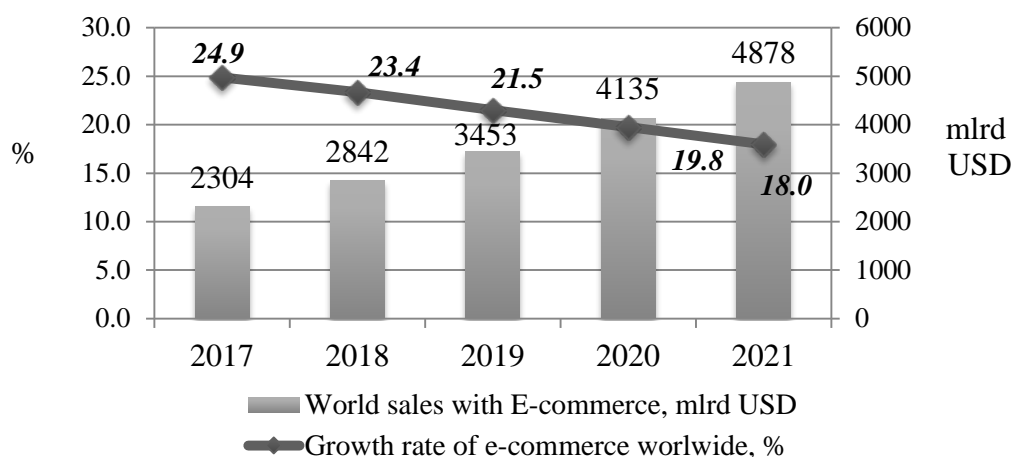


Figure 3 Forecast of Internet sales and e-commerce growth (authors' calculations based on Statista database, 2018)

The diagram depicts a profound increase of Internet sales induced by sustainable development of e-business and Industry 4.0. Such a trend enhances production forces and purchasing power, which encourages new markets and GDP growth.

We have to admit that the rapid development of new markets is a key feature of e-commerce on a global scale. To illustrate this fact, ATKearney's Agency has developed a list of 30 most competitive e-commerce countries, among which China, the USA and Japan were leaders. The top ten most promising markets also included three Western European markets: British, German, and French. Other European countries are represented bellow.

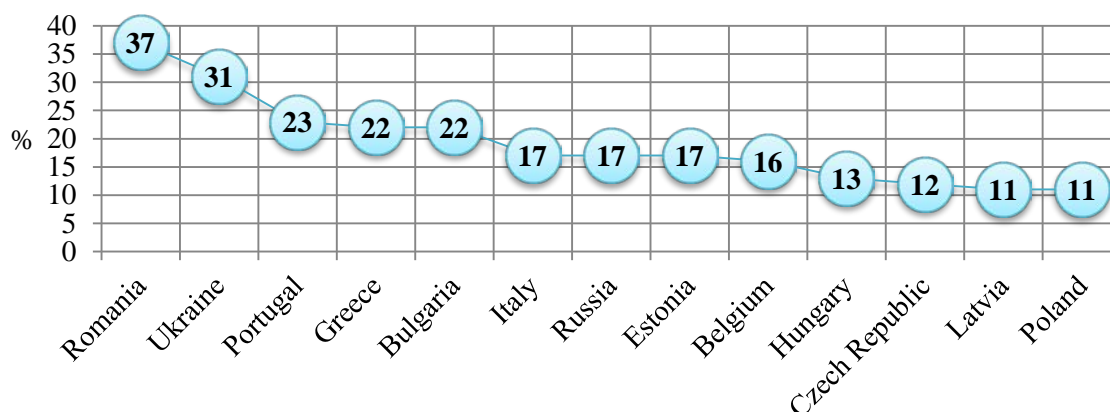


Figure 4 E-commerce growth in 2018 (based on ATKerney, 2017)

The diagram above represents e-commerce growth in some European countries, which are considered as a potential market for e-business. Taking into account that fact, Europe is considered the third largest region in the world; this

year e-trade is expected to accumulate profound profits at USD 363.541 million and increase online sales to USD 481.964 million by 2022 (ATKerney, 2017).

In addition, modern e-business focuses mostly on different trading platforms, particularly marketplaces and online stores. The 18 largest online marketplaces in the world sell goods worth more than USD 1 trillion a year. Analysts predict that by 2020 they will account for 40% of the world's online retail market. Large retailers expand the market by integrating the marketplace model into their digital commerce toolkit.

These days, the following trading platforms are the most popular in Europe.

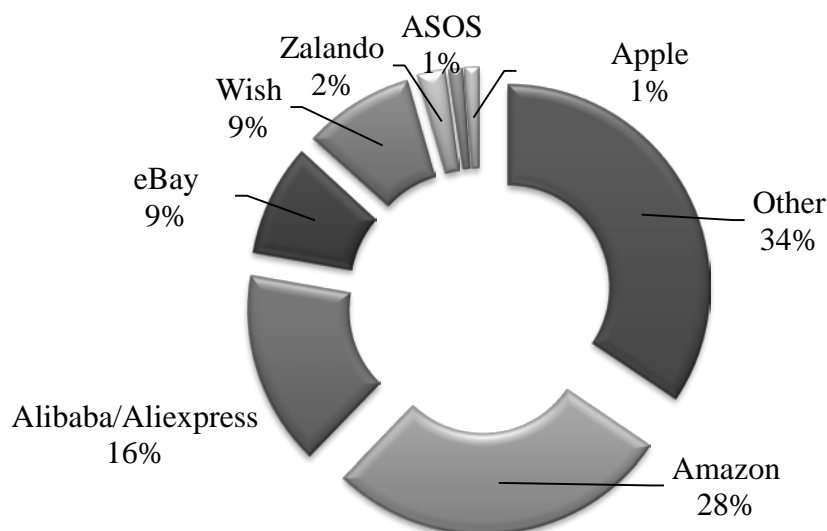


Figure 5 *European trading platform players in 2018* (based on *European Ecommerce Report* by *Ecommerce Europe*, 2018)

The figure illustrates that the major trading platforms in Europe are mostly represented by marketplaces - 64% (Amazon, Alibaba/Aliexpress, eBay, Wish, Zalando), while such popular online stores as Apple and Asos take 2%. Amazon, Alibaba and eBay dominate the European market, according to their website ranking. It is noteworthy that European e-commerce is lead by non-European trading platforms, namely, American (Amazon, eBay) and Asian (Alibaba Group).

This distribution of marketplace shares is mostly relevant for all European countries. However, we will disclose some particularities of e-commerce development by the example of Latvia and Ukraine.

Annual e-commerce growth in Latvia is 11% and Ukraine – 31%, however Internet penetration in Latvia is 82%, compared with 66% in Ukraine. Despite Ukraine's comparatively insignificant experience in e-commerce, online sales are growing considerably. The biggest marketplaces are owned by Ukrainian company EVO Group (Prom.ua, Bigl.ua, Crafta. ua, Kabanchik.ua, Goodini.ua)

with a turnover of about USD 300 mln. This year number of purchase orders increased by 47%, however the average purchase price grew only by 5%. At the same time, Latvia’s turnover from online sales is about USD 795 mln despite comparatively low e-commerce growth. The country is expected to extend marketplace customers with additional users. The structure of online purchases on the marketplaces is demonstrated in the following table.

Table 2 Product rankings in the marketplaces in 2018 (authors’ ranking based on E-commerce markets comparison by Gemius consulting company, 2018)

Rank	Latvia		Ukraine		Rank
1	Public events and entertainment	56%	Clothing and accessories	59%	1
2	Insurance	52%	Consumer electronics (TV set, washing machine, etc.)	57%	2
3	Consumer electronics (TV set, washing machine, etc.)	42%	Mobile phones, tablets and gadgets	57%	3
4	Clothing and accessories	36%	Tickets for transport	54%	4
5	Mobile phones, tablets and gadgets	35%	Computers and related hardware	51%	5

Despite some differences in product rankings, the most popular online deals in both countries related to clothing and accessories, mobile gadgets and consumer electronics. TOP 5 marketplace products also covered public events, entertainment and insurance that was new and not yet popular among Ukrainians.

We also could define factors that encourage and discourage users to purchases on online marketplaces.

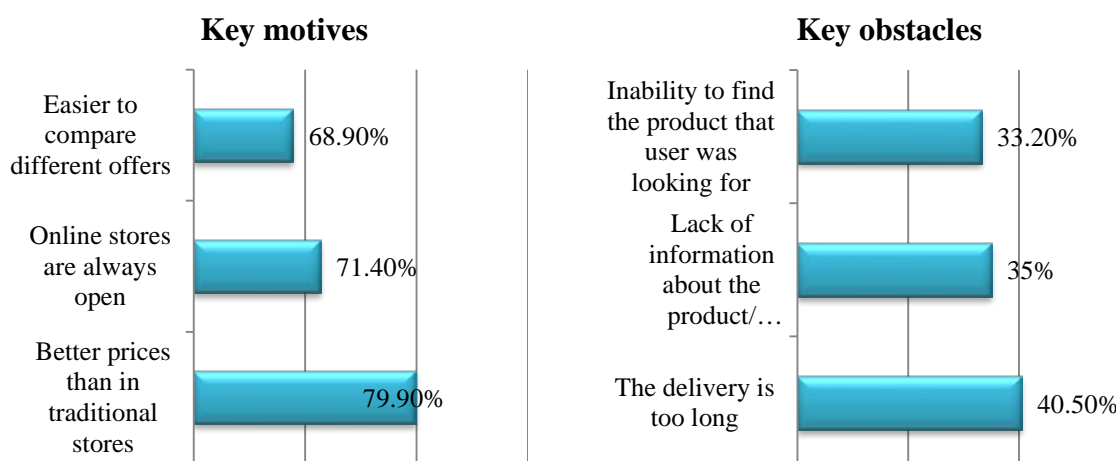


Figure 6 Customers’ motivation and obstacles to purchase on marketplaces (authors’ classification based on Factors investigation by Gemius consulting company, 2018)

This diagram illustrates that despite the profound benefits of online shopping, it still threatens some part of customers because of highlighted obstacles which should be tackled by marketplaces if they intend to stay competitive in the market. On the other hand, such obstructions of online shopping play into the hands of classic offline markets.

Summing up the above reflections, we are going to model transformational trends which global e-business will probably face in coming years.

Trend 1. The growth of ethical and deliberate e-commerce that means environmental friendliness of source materials, products and transparency of prices. This will be possible by increasing an awareness of the environmental and ethical implications of offline and online purchases, real or hidden effects of consumption in general.

Trend 2. Regional sales taxes. E-traders will have to pay taxes in each region and for each purchase, regardless of the country where they are physically present. For instance, the American marketplace Amazon will pay additional taxes in all European countries it does the business. On the other hand, this will encourage small online stores to sell products through the major marketplaces to shift fiscal responsibility and avoid exhausting red tape. Thus, marketplaces will expand and even merge.

Trend 3. Social Media forms the main informational chain between traders and customers. Eventually, the social network platforms become transactional, so users will be able to make purchases without leaving the platform. Even today, a third of social network users at least once bought products or services directly through the social media application.

Trend 4. Investment flaws in e-commerce will rise significantly because business players have to invest in their own digital development in order to save themselves to being driven out from the market. Thus, interest in the Internet of Things, machine-to-machine applications, SMEs model etc. will rise. For example, in the coming years e-business should provide users with a hybrid Progressive Web Application that erases the boundaries between web-sites and mobile applications. Thanks to this, users will be able to serve the Internet stores offline, hence, marketplaces will increase the time spent on the site.

Trend 5. Artificial intelligence will be affordable for retailers worldwide. This automates the manual work and simplifies an abundance of complex and time-consuming tasks related to descriptions of goods, copywriting, arranging metadata, revising stock availability, analysis of product matrix etc.

Trend 6. Internet stores owned by large retailers will transform into marketplaces. The marketplace model is relevant for a large number of industries, as it is a simple way to expand the product range without increasing costs. World practice shows that the majority of companies that become marketplaces are effective e-commerce players, large retailers, postal and logistics operators,

financial organizations, and also IT companies. Today, 12% of large retailers currently have stores at marketplaces; 32% of major retailers are considering launching a marketplace based on their on-line business.

Trend 7. The E-commerce model by the principle “Shopping on the Go” will transform some business approaches. To be more specific, modern search systems provide profuse opportunities for e-business focused on active people, particularly drivers and hard workers who value the time and prefer shopping on the go. Statistical data confirm this clue, hence about 50% of Europeans and Americans use their smartphones to find the nearest gas station or store, order and pay for parking, take away food and coffee-to-go, and 20% of these local searches are being sold (Ecommerce Europe organization, 2018).

Trend 8. All services related to internal technical maintenance of e-commerce will be widely requested. Thus, these services will be integrated into a separated cluster – business that serves and maintains e-business (B2eB model).

Trend 9. Business will face with content syndication, in other words, with automatic distribution of the same informational content to several sites, social networks and media channels from one centralized point. In this case, it is important to ensure the consistency of content in accordance with the format of platform on which it is being submitted.

Conclusions

This research has led to the following conclusions:

At first, global digitalisation, e-commerce growth and online trade outline the reality of doing business in the XXI century. Thus, developed computer and communication infrastructure of the region and, particularly, Internet penetration are becoming the key factors of effective, clear and productive business.

At second, modern e-commerce players, such as online stores, price aggregators, marketplaces and electronic classifiers affect the business environment and encourage business transformation at the local and global level. E-commerce growth depends on socio-demographic, technological and economic criteria. Thus, dynamics of these criteria will delineate some essential shifts in e-business.

At third, the rapid development of new markets is a key feature of e-commerce on a global scale. European countries are considered by investors as a quite dynamic and forward-looking market for e-business with annual growth more than 30 %.

At fourth, despite the profound benefits of online shopping, it still threatens some part of customers because of obstacles related to the delivery problem, inability to find needed products and distorted informational content. There

problems should be tackled by marketplaces if they intend to stay competitive in the market.

At fifth, the key trends of future business development concern three main areas of transformation under digitalization: ethic and security, technical development and new management approaches.

Summary

Modern business operates in the environment of digital revolution and Industry 4.0, providing market participants with new progressive opportunities of e-commerce. Moreover, these modern prospects contribute to transformation of classical markets into electronic trading platforms such as Internet stores, major marketplaces, price aggregators etc.

Marketplaces change an internal approach to the internet sales and way of doing e-business because they are able to merge an infinite number of product categories, provide convenient conditions for purchase and guarantee high-quality products from international suppliers. In addition, marketplaces address this idea and represent a wide range of suppliers from small producers to giant manufactures on the common trading platform.

We have to admit the profound increase of Internet sales induced by sustainable development of e-business that enhances production forces and purchasing power, scale the markets and encourage GDP growth. The rapid development of new markets becomes a key feature of e-commerce on a global scale. In this case, Europe becomes one of the most attractive markets for e-business development.

Some factors significantly affect e-commerce growth and induce business transformation. To be more specific, we should admit socio-demographic criteria (population growth, particularly the ratio of working-age population), technological criteria (the Internet access, number of smartphones, development of logistics infrastructure; reliable delivery system) and economic indicators (GDP per capita, vibrant business environment, penetration rate of banking services). Another evidence of e-business transformation links to the growing popularity of social networks, where small businesses get the chance to enter the e-market and promote their products on the equal basis with major companies.

Accordingly, e-business will continue to transform, which concerns the following aspects: customer and seller security; environmental friendliness of source materials, products and transparency of prices; syndicated distribution of precise and needed information; wide affordability of IoT, artificial intelligence and modern web applications, provided by e-business services; new management approaches, such as focus on social networks; innovative policy; transformation of local stores into marketplaces.

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SABIEDRĪBAS LĪDZDALĪBA UN IEINTERESĒTĪBA LATVIJAS VALSTS PĀRVALDES PROCESOS

Public Participation and Interest in the Process of Latvian State Administration

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Abstract. *Democratic state administration needs interaction with the public, which requires not only government communication with the public but also the public interest and understanding in the political and public administration processes. The task of public administration is to create a legal and institutional framework and mechanisms for public participation, while NGOs and the general public need civil competency to use the opportunities of public participation. Analysing the Latvian government's communication activities related to public participation and public awareness, the aim of this paper is to examine the level of participation of different social groups and the impact of their awareness on it. Within the framework of the research, the following methods have been used: analysis of normative documents, statistics on the implementation of the Memorandum of cooperation between the government and non-governmental organizations, interviews with experts from NGOs and state administration, focus group discussions with young people. Analysing legal documents and statistics on the involvement of NGOs, public participation platforms and their use have been evaluated. Based on the views of NGOs and state administration experts, there are certain factors that influence the level of public participation and public awareness. Focus group discussions with young people have identified their awareness and interest in public administration processes as well as their civic participation. The research study found that the state administration has created a variety of platforms for the involvement of NGOs in decision-making processes and an increase in the participation of NGOs. By choosing young people as one of the social groups of society, it can be concluded that information about public participation does not reach the general public, thus it has little effect on the formation of the general public's awareness and the level of participation.*

Keywords: *civic competencies, government communication, public participation, state administration.*

Ievads

Introduction

Demokrātiskas valsts pārvaldes darbība nav iedomājama bez mijiedarbības un dialoga ar sabiedrību, bez diskusijas un viedokļu apmaiņas, kas prasa ne tikai valsts pārvaldes darbu sabiedrības informēšanā, bet arī pašas sabiedrības

ieinteresētību, informētību un izpratni par politiskajiem un valsts pārvaldes procesiem. Valsts pārvaldes komunikācija tās institucionālās lomas dēļ vairāk ietver izglītojošas funkcijas īstenošanu pilsoniskajai un sociālajai attīstībai nekā uz pārliecināšanu vai atgādināšanu. Komunikācijas stratēģija ir vērsta uz to, lai paustu atbilstošu valsts tēlu, skaidrotu valsts pārvaldes darbību, veicinātu publiskas diskusijas un pilsoniskās sabiedrības iesaisti (Galvin, Siano, & Cuomo 2011, 22). Valsts lomu pilsoniskuma veidošanā, īpaši globalizācijas laikmetā, uzsver vairāki autori (Lawson, 2002; Varnham, 2005), pie tam akcentējot arī pilsoniskās izglītības nozīmi (Kymlicka, 2003). Jāatzīmē, ka daudzas mūsdienu demokrātiskas valstis saskaras ar zemu sabiedrības uzticēšanās līmeni valsts varai. Tas lielā mērā tiek saistīts ar sabiedrības pausto neapmierinātību ar publiskās pārvaldes un pie varas esošo politisko partiju darbību, nostiprinot pārliecību, ka valsts pārvalde nekalpo sabiedrības interesēm (Kudors & Pabriks, 2017, 169). Sabiedrības neapmierinātība ir pamatā Eiropas un daudzās citās demokrātiskās valstīs pieaugošajiem populisma panākumiem, kas būtiski maina un ietekmē publiskās pārvaldes sistēmu (Auers, 2017, 152). Sabiedrības tiesiskās apziņas veidošana, skaidrojot pilsoņa lomu, pilsoniskās apziņas un rīcībspējas ietekmi uz sabiedrību kopumā (Čekse, Geske, & Grīnfelds, 2014, 278), kā arī sabiedrības līdzdalības veicināšana ir viens no ceļiem, kā vairot sabiedrības atbalstu un uzticēšanos valsts pārvaldei, jo tā nodrošina tiešāku informācijas apriti starp sabiedrību un valsts varu, izglīto iedzīvotājus par to tiesībām un iespējām, kā arī veicina konsensu sabiedrībā, iesaistīto pušu ētisku uzvedību un rada pamatu atbildīgai praksei un valsts amatpersonu kompetencei (Wang & Wan Wart, 2007).

Analizējot Latvijas valdības aktivitātes sabiedrības līdzdalības un tiesiskās apziņas veidošanā, šī raksta mērķis ir izpētīt dažādu sabiedrības grupu līdzdalības līmeni un to ieinteresētību Latvijas valsts pārvaldē. Pētījuma ietvaros ir izmantotas šādas metodes: normatīvo dokumentu analīze par valdības un nevalstisko organizāciju (NVO) sadarbību, ekspertu intervijas ar NVO un valsts pārvaldes pārstāvjiem, kā arī 2 fokusgrupas diskusijas ar jauniešiem vecumā no 20 līdz 28 gadiem. Raksta uzdevumiem ir šādi: 1) analizējot valdības pieņemtus dokumentus un statistikas datus par NVO iesaisti valdības un NVO sadarbības memoranda īstenošanā, novērtēt instrumentus un to pielietojumu sabiedrības līdzdalības veicināšanā; 2) balstoties uz NVO un valsts pārvaldes ekspertu viedokļiem, noteikt faktorus, kuri ietekmē sabiedrības līdzdalības un ieinteresētības līmeni; 3) veicot fokusa grupas diskusiju ar jauniešiem, noteikt to pilsoniskās kompetences iesaistei valsts pārvaldē, kā arī informētību un ieinteresētību valsts pārvaldes procesos. Tādējādi rakstā meklētas atbildes uz šādiem jautājumiem: kādas ir sabiedrības līdzdalības iespējas un kā tās tiek izmantotas, kā sabiedrības ieinteresētības līmenis ietekmē iesaistīšanos. Turpmākie izpētes jautājumi šajā tēmā varētu būt uzvērsti uz optimāla

sabiedrības un valsts pārvaldes attiecību modeļa izveidi, lai samazinātu zemo līdzdalību un sabiedrības uzticēšanos valsts pārvaldei.

Sabiedrības līdzdalības iespējas Latvijas valsts pārvaldē *Opportunities of public participation in the Latvian state administration*

Demokrātiskas sabiedrības stūrakmens ir ikviena iedzīvotāja tiesības vienlīdzīgi piedalīties svarīgu jautājumu ietekmēšanā un sabiedrības attīstības virzienu noteikšanā. Tam no vienas puses valsts pārvaldei ir nepieciešams radīt atbilstošu juridisko un institucionālo ietvaru, kā arī instrumentus sabiedrības līdzdalībai (Rosenzweigova, Skoric, & Asipovich, 2016), no otras puses veicināt sabiedrības informētību un ieinteresētību valsts pārvaldes procesos. Ņemot vērā sabiedrības atsvešinātību un zemo uzticēšanos valsts pārvaldei, kas raksturīga ne tikai Latvijā, bet arī daudzās citās Eiropas valstīs, tas kļūst arvien nozīmīgāks un grūtāks valsts pārvaldes komunikācijas uzdevums. Tātad sabiedrības līdzdalībai lēmuma pieņemšanas procesos ir nepieciešama gan piekrišana politiskās varas puses, gan normatīvo aktu regulējums, kas nosaka valsts pārvaldes un sabiedrības sadarbības veidus, kā arī abu pušu tiesības un pienākumus.

Lai izprastu sabiedrības līdzdalības iespējas Latvijas valsts pārvaldē, autore ir analizējusi valdības pieņemtus tiesību aktus un politikas plānošanas dokumentus. Viens no nozīmīgākajiem dokumentiem, kas nosaka sabiedrības līdzdalības procedūras, ir Ministru kabinetā 2009. gadā apstiprinātie noteikumi par sabiedrības līdzdalības kārtību attīstības plānošanas procesā, kuri ir saistoši gan valsts, gan pašvaldību lēmumu pieņemšanā (Sabiedrības līdzdalības kārtība..., 2009). Valdība ir pieņēmusi arī vairākus grozījumus Ministru kabineta kārtības rullī, kuri ir vērsti uz sabiedrības līdzdalības iespēju paplašināšanu, piemēram, valsts sekretāru sanāksmē ar padomdevēja tiesībām var piedalīties nevalstisko organizāciju pārstāvis (Ministru kabineta kārtības rullis, 2009). Kopš 2013. gada ir ieviesta jauna dalības forma - diskusiju dokumenti, kas sabiedrībai dod iespēju iepazīties ar likumprojektu dokumenta izstrādes agrīnajā stadijā. Sabiedrības līdzdalības procesi un sabiedrības informēšanas jautājumi ir definēti arī valdības 2017. gadā pieņemtajā "Valsts reformu plānā 2020" (Par Valsts reformas plānu 2020, 2017). Savukārt „Nevalstisko organizāciju un valdības sadarbības memorands” rada ietvaru NVO līdzdalībai valdības darbā, jo tā mērķis ir sekmēt efektīvas un sabiedrības interesēm atbilstošas valsts pārvaldes darbību, nodrošinot pilsoniskās sabiedrības iesaisti lēmumu pieņemšanas procesos. Šī dalības forma ievērojami paplašina un stiprina NVO līdzdalību valsts pārvaldes lēmumu pieņemšanas procesā. Līdz ar to vairākas Latvijas valdības politiskās gribas līmenī ir deklarējušas savu nostāju par sabiedrības, t.sk., nevalstisko organizāciju,

līdzdalību valsts pārvaldē un tās nodrošināšanai ir pieņemti dažāda līmeņa normatīvie akti.

Dokumentu analīze ļauj secināt, ka nevalstisko organizāciju līdzdalība valsts pārvaldē tiek nodrošināta ar reglamentējošiem dokumentiem un normatīviem aktiem, nosakot principus sabiedrības iesaistīšanai lēmumu pieņemšanas procesos, kā arī nepieciešamību un pienākumu informēt sabiedrību. Tātad ir radīts ietvars sabiedrības iesaistei valsts pārvaldes lēmumu pieņemšanas procesos, nodrošinot nevalstiskajām organizācijām uz visai sabiedrībai zināmiem un saprotamiem noteikumiem līdzvērtīga partnera loma valsts pārvaldē. Līdz ar to ir sasniegti divi mērķi: sabiedrībai ir garantētas tiesības piedalīties lēmumu pieņemšanā un tiek nodrošināts konstruktīvs sadarbības process.

Lai noteiktu sabiedrības līdzdalības līmenī un ietekmi valsts pārvaldes procesos, autore ir analizējusi „Nevalstisko organizāciju un valdības sadarbības memoranda” īstenošanas gaitu, kā arī valsts pārvaldes un NVO pārstāvju (t.i., NVO un valdības memoranda īstenošanā iesaistīto pušu) viedokļus. Kopumā jāsecina, ka kaut gan normatīvajos aktos ir noteikti vienoti principi sabiedrības līdzdalībai, tie tomēr visās valsts pārvaldes institūcijās netiek vienādā mērā ievēroti un uzraudzīti. Gan NVO, gan valsts pārvaldes eksperti atzīmē, ka līdzdalības iespējas Latvijā ir pilnībā nodrošinātas, bet to apjoms un kvalitāte atkarīga no katras NVO kapacitātes un pieredzes konkrētajā jomā, kā arī spējas veidot dialogu, uzklusot citu viedokļus un paužot savu pozīciju. Savukārt NVO pārstāvji pauž viedokli, ka normatīvie akti nosaka obligātās prasības institūcijām, taču uzraudzības process, kā šie noteikumi tiek pildīti, nenotiek. Piemēram, informācijas publiskošana par sabiedrības līdzdalības iespējām valsts un pašvaldības mājas lapās ietver ļoti atšķirīgu praksi, jo sadaļa “Sabiedrības līdzdalība” dažu institūciju mājaslapās ir grūti atrodamā, bieži vien tās satur dažādu informācijas detalizācijas pakāpi un izkārtojumu. Samērā vienota prakse informācijas publiskošanā ir atrodamā ministriju mājaslapās, lai gan arī tajās ir vērojamas atšķirības, piemēram, Kultūras ministrijas mājaslapā informācija par sabiedrības līdzdalību ir atrodamā sadaļā “Pilsoniskā iesaistīšanās”, savukārt citu ministriju mājaslapās - “Sabiedrības līdzdalība”.

Eksperti akcentē, ka Latvijā darbojas vairākas nevalstisko organizācijās platformas (piemēram, Latvijas Pilsoniskā Alianse, Latvijas Platforma attīstības sadarbībai), kas dod iespēju sabiedrībai iesaistīties politikas izstrādes procesos gan Saeimas, gan Ministru kabineta līmenī. Pie tam NVO kapacitāte tiek stiprināta gan no valsts, gan dažādu starptautisko donoru puses, tādējādi pieaug gan NVO spējas, gan vēlme līdzdarboties. Valsts pārvaldes institūciju pārstāvji uzsvēra, ka NVO kapacitāte bieži vien ir ļoti atkarīga no konkrētā sektora, piemēram, Ekonomikas ministrijas un Vides aizsardzības un reģionālās attīstības ministrijas pārstāvji augstu novērtē savā jomā iesaistīto NVO kapacitāti.

NVO pārstāvji, akcentējot nepieciešamību regulāri stiprināt NVO kapacitāti, puda viedokli, ka bieži vien nevalstiskās organizācijas saskaras ar ļoti augstu kadru mainību. Kā viens no NVO kapacitātes stiprināšanas veidiem tiek akcentēta sadarbības veidošana NVO sektora iekšienē. Piemēram, 2004. gadā tika dibināta Latvijas Platformā attīstības sadarbībai, kuras mērķis nodrošināt labvēlīgu vidi un iespējas attīstības sadarbībai nacionālajā un starptautiskajā līmenī. Savukārt Latvijas Pilsoniskā Alianse nodrošina konsultācijas interešu aizstāvībā, NVO finansējuma piesaistē un sabiedrības līdzdalības jautājumos, pie tam abas organizācijas ir aktīvi politikas izstrādes procesa dalībnieki gan Ministru Kabineta, gan Saeimas līmenī.

Kā jau minēts iepriekš, Valdības un nevalstisko organizāciju sadarbības memorands ir viens no nozīmīgākajām sabiedrības līdzdalības platformām. Ekspertu paustie viedokļi norāda, ka valdības un NVO sadarbības memorands veido atklātu un uz līdzdalību vērstu lēmumu pieņemšanas procesu, savlaicīgi iesaistot saskaņošanā NVO, nodrošina pilsoniskās sabiedrības stiprināšanas un attīstības dokumentu izstrādi un ieviešanu, sekmē valsts pārvaldes uzdevumu deleģēšanu, līdzdalības līgumu slēgšanu ar NVO. Ekspertu vērtējumā NVO līdzdalība valdības memorandā sekmē efektīvu un konstruktīvu savstarpējo viedokļu apmaiņu, veido sadarbību starp NVO un valsts pārvaldi, nodrošina atklātāku un iesaistošāku veidu atzinumu gatavošanu par tiesību aktu un attīstības plānošanas dokumentu projektiem, kā arī sabiedrības līdzdalību saskaņošanas sanāksmēs, konsultatīvajās padomēs un darba grupās. Tādējādi valdības un NVO memoranda radītie mehānismi nodrošina regulāru informācijas sniegšanu par līdzdalības praksi un sadarbību ar ministrijām, lai uzlabotu valsts pārvaldes un sabiedrības sadarbību, kā arī nodrošina kvalitatīvu līdzdalību, efektīvu, caurskatāmu un atbildīgu dialogu. NVO pārstāvji par nozīmīgākajiem instrumentiem sabiedrības līdzdalībā uzskata šādus: atzinuma un viedokļu sniegšana par tiesību aktu un politikas attīstības dokumentu projektiem, dalība valsts iestāžu darba grupās un konsultatīvajās padomēs, kā arī publiska viedokļa paušana medijos (t.sk. sociālajos medijos).

Lai novērtētu sabiedrības līdzdalības ietekmi valsts pārvaldes procesos, autore ir analizējusi valdības un nevalstisko organizācijas sadarbības memoranda īstenošanas rādītājus. Tie norāda, ka kopumā NVO iesaistei dažādās līdzdalības platformās ir tendence pieaugt. Ik gadu jaunas nevalstiskās organizācijas pievienojas valdības un NVO sadarbības memorandam: to skaits no 57 organizācijās 2006. gadā ir audzis līdz 424 NVO 2018. gadā (Ministru kabinets, 2018). Lai gan kopumā šīs NVO pārstāv tikai 1,85% no valstī reģistrētām 22 825 biedrībām un nodibinājumiem (Lursoft statistika, 2018).

Analizējot valdības un NVO sadarbības memoranda īstenošanas statistikas datus, var secināt, ka NVO līdzdalība normatīvo aktu un politikas plānošanas dokumentu izstrādē ir būtiski palielinājusies. Tiesību aktu projektu analīze pirms

valdības un NVO sadarbības memoranda ieviešanas laikā no 2004. gada līdz 2006. gadam, aptverot 6055 tiesību aktu un politikas plānošanas dokumentu projektus, liecina, ka tikai 12% projektu ir norādīts, ka projekta izstrādē ir iesaistītas nevalstiskās organizācijas, vairumā gadījumos atzīmējot, ka konsultācijas ar nevalstiskajām organizācijām nav veiktas, neminot detalizētākus paskaidrojumus (Majore, 2006).

Savukārt analizējot NVO līdzdalības rādītājus no 2009. gada līdz 2015. gadam, var secināt, ka sabiedrības iesaiste politikas dokumentu un normatīvo aktu projektu izstrādē, kā arī citās sadarbības platformās pieaug. Valdības un NVO sadarbības memoranda īstenošanas analīze liecina, ka ir attīstīti šādi mehānismi NVO līdzdalībai lēmumprojektu izstrādē: NVO atzinumu saņemšana par tiesību aktu projektu un politikas plānošanas dokumentiem, NVO kā ekspertu iesaistīšana, tiesību aktu projektu un politikas plānošanas dokumentu apspriešana konsultatīvajās padomēs ar NVO pārstāvju piedalīšanos (Ministru kabinets, 2018).

Apkopojot datus par NVO atzinumu sniegšanu, var secināt, ka šis līdzdalības rādītājs ir samērā augsts, jo NVO līdzdalības īpatsvars lēmumprojektu izstrādē šajā sadarbības platformā svārstās no 40% līdz 62%: 2009. gadā ir saņemti 470 NVO atzinumi par 938 tiesību aktu projektiem un politikas plānošanas dokumentiem, 2010. gadā 1374 projektiem ir sniegti 552 atzinumi, 2011. gadā 1280 projektiem – 557 atzinumi, 2012. gadā 1125 projektiem – 635 atzinumi 2013. gadā 1459 projektiem – 709 atzinumi, 2014.gadā 1193 projektiem – 512 atzinumi, 2015. gadā 1152 projektiem – 716 atzinumi (Skat. 1.tab. NVO līdzdalība lēmumprojektu izstrādē).

*1.tabula. NVO līdzdalība lēmumprojektu izstrādē 2012.-2017. gadā
(autores apkopotie dati)
Table 1 Participation of NGOs in drafting decisions 2012-2017
(data collected by the author)*

Tiesību aktu veidi	2012	2013	2014	2015	2016	2017
Ministriju sagatavotie projekti	1125	1459	1193	1152	1123	1174
Tiesību aktu projektu un politikas plānošanas dokumentu skaits, par kuriem saņemti NVO atzinumi	635	709	512	716	738	784
Procentuālā attiecība	56%	48%	43%	62%	65%	663%

Papildu NVO līdzdalībai lēmumprojektu izstrādei, sabiedrības iesaistes veicināšanai ministrijās tiek izmantotas vēl citi sadarbības veidi: informatīvi un izglītojoši pasākumi nevalstisko organizāciju pārstāvjiem par līdzdalības iespējām valsts pārvaldē, konferences un informatīvi semināri, kā arī ministriju

pārstāvju līdzdalība NVO pasākumos. Kā nozīmīgākie veidus, kas sekmē regulāru un aktīvu NVO līdzdalību, eksperti atzīmē šādus: pastāvīgās konsultatīvās padomēm ministrijās, ministriju un NVO darba grupas, kā arī sabiedriskās apspriedes un publiskās apspriešanas. Tātad var secināt, ka valdības un NVO sadarbības memoranda īstenošanas gaitā ir attīstīti dažādi veidi, kā sabiedrība var līdzdarboties valsts pārvaldē, kā arī ir vērojams NVO līdzdalības pieaugums, lai gan tas aptver salīdzinoši mazu sabiedrības daļu. Tādējādi var secināt, ka līdzdalības mehānismi nav veicinājuši sabiedrības atbalstu un ieinteresētību valsts pārvaldē: pēc Eiropabarometra datiem valdībai uzticas – 27% Latvijas iedzīvotāju, parlamentam – 20%, publiskajai pārvaldei – 30%, savukārt Eiropas Savienībai – 47% (European Commission, 2017). Informācijas trūkums par līdzdalības iespējām un rezultātiem plašākai sabiedrībai ir viens no iemesliem zemajai sabiedrības iesaistei un līdz ar to arī zemajam uzticēšanās līmenim.

Sabiedrības izpratne par līdzdalības nozīmi un iespējām ***Public awareness about the role and possibilities of public participation***

Sabiedrības optimāla iesaistīšanās nav iespējama bez vispusīgas un pieejamas informācijas nodrošināšanas, kas ietver gan sabiedrības informēšanu par līdzdalības iespējām, gan sabiedrības izpratnes veidošanu par katra iedzīvotāja pilsonisko lomu un rīcībspējas ietekmi uz sabiedrību un valsti kopumā (Čekse, Geske, & Grīnfelds, 2014). Tādējādi ir akcentējami trīs nozīmīgi valdības komunikācijas aspekti sabiedrības līdzdalības veicināšanā: sabiedrības līdzdalības platformu nodrošināšana, informācijas pieejamība par līdzdalības iespējām un sabiedrības izpratne par sabiedrības līdzdalības iespēju izmantošanu un tās ieguvumiem. Normatīvo aktu un ekspertu viedokļu analīze liecina, ka kopumā Latvijā ir radīts juridiskais un institucionālais ietvars sabiedrības līdzdalībai, kā arī jau ir attīstīta laba prakse, tomēr pastāv lielas atšķirības gan sabiedrības iesaistes līmenī, gan normatīvo aktu prasību izpildē, tādējādi uzsvars būtu liekams uz izglītošanu un sabiedrības līdzdalības nozīmes skaidrošanu valsts pārvaldē strādājošiem un plašai sabiedrībai.

Izglītošanas un līdzdalības kapacitātes veicināšanas jomā Valsts pārvaldes politikas pamatnostādņēs ir ticis izvirzīts šāds uzdevums: paaugstināt valsts pārvaldes darbinieku kompetences par konsultāciju veidiem un iespējām, tai skaitā nodrošināt institūcijas vienotu komunikāciju ar sabiedrību, paredzot arī institūcijas struktūrvienību sadarbību informācijas nodrošināšanā sabiedrībai (Par valsts pārvaldes..., 2008). Analizējot Valdības un NVO sadarbības memoranda īstenošanu, statistikas dati norāda, ka ik gadu ministrijas organizē vairāk nekā 200 dažāda mēroga semināru, konferenču un darba grupu informācijas apmaiņām ar nevalstiskajām organizācijām, kā arī ministriju

pārstāvji piedalās NVO rīkotos pasākumos, lai gan vērojams, ka ministriju aktivitāte šādu sabiedrības informēšanas pasākumu rīkošanā ir neviendabīga.

Īpaši nozīmīga loma informēšanai par sabiedrības iesaistes iespējām ir NVO līdzdalībai ministriju valsts sekretāru sanāksmēs, tādējādi ir nodrošināta regulāra un proaktīva NVO informēšana par norisēm visās normatīvo aktu izstrādes stadijās, kā arī NVO un MK sadarbības memoranda īstenošanas padomes sēdes, kurās tiek izskatītas nevalstisko organizāciju ierosinātas tēmas. NVO un valsts pārvaldes eksperti, vērtējot šīs sadarbības formas norāda, ka kopumā ir pietiekoši daudz labi piemēri NVO iesaistīšanai jau lēmumprojekta izstrādes sākuma stadijā, kā arī informācija par lēmumprojektu izstrādes gaitu ir atklāta un pieejama. Tomēr vienlaikus eksperti norāda, ka būtiska nozīme ir gan valsts pārvaldes darbinieku ieinteresētībā veicināt NVO iesaisti un izpratnē par NVO pienesumu.

Ekspertu skatījumā, īpašas atšķirības NVO iesaistes līmenī ir vērojamas pašvaldību līmenī: to sadarbība ar NVO ir raksturojama kā ļoti neviendabīga, kas ir atkarīgs no tādiem faktoriem kā pašvaldību darbinieku komunikācijas prasmes, pašvaldībai pieejamo finanšu līdzekļu apjoms, kā arī vietējo iedzīvotāju vēlmes iesaistīties nevalstiskajās organizācijās un līdzdalības pasākumos. Kā būtiska problēma, NVO pārstāvju skatījumā, ir arī tā, ka attiecības starp NVO un pašvaldībām ir pietuvinātākas un personiskāks, kā rezultātā uz apspriešanām bieži vien tiek aicināti un ierodas tie, kas ir pietuvināti pašvaldībai un ar noteiktām politiskām interesēm.

Kopumā samērā neregulēts informācijas apmaiņas process ir ministriju līmenī, jo katrā ministrijā ir darbinieks, kas ir atbildīgs par sadarbību ar NVO un viņu koordinātes ir atrodamas gan Ministru kabineta, gan arī ministriju mājas lapās, kā arī ir mājaslapās pieejama informācija par diskusiju dokumentiem, kuri ir nodoti sabiedriskajām apspriešanām. Tomēr eksperti kā problēmu norāda, ka nereti šī informācija nenonāk līdz sabiedrībai un tās aktivitāte ir ļoti zema, kas liek apšaudīt sabiedriskās apspriešanas efektivitāti. Tādējādi iezīmējas divas būtiskas problēmas: plašai sabiedrībai trūkst informācijas par līdzdalības iespējām un dažādu sabiedrības grupu pārstāvju kapacitāte un kompetence nav pietiekama šo iespēju izmantošanā.

Eksperti par nozīmīgākajiem trūkumiem sabiedrības līdzdalības kontekstā ir atzinuši šādus aspektus: bieži vien ministriju un NVO sadarbība aprobežojas tikai ar informatīvo apriti, pie tam samērā maz tiek iesaistītas nevalstiskās organizācijām no reģioniem, laikā gaitā ir attīstīti pārāk daudz sadarbības mehānismu un pieejamās informācijas klāsts ir pārāk apjomīgs, lai sabiedrība spētu tos izprast un iedziļināties. Lai gan nevalstisko organizāciju skaits un kapacitāte laika gaitā ir augusi un tās ir kļuvušas profesionālāks, apgūstot birokrātiskos mehānismus lobēšanai, kā arī iegūstot resursus un nodrošinot pārstāvniecību, tomēr arī pašas nevalstiskās organizācijas maz veido

komunikāciju ar plašu sabiedrību. Vērtējot NVO kā sabiedriskās domas un politikas dienaskārtības veidotājus, eksperti uzsver, ka sabiedrības līdzdalības jautājumos NVO galvenokārt komunicē ar valsts pārvaldi, nevis sabiedrību kopumā, līdz ar to sabiedrībai trūkst informācijas par NVO līdzdalību un veikumu. Bieži vien NVO viedokļu dažādības dēļ nespēja vienoties par kopēju nostāju, kas sabiedrībā rada negatīvu tēlu par NVO sektoru, it īpaši, ja argumentācijā tiek izmantota citas NVO vai valsts pārvaldes noniecināšana. Šie ir faktori, kas arī ietekmē sabiedrības priekšstatus par līdzdalības nozīmi un vēlmi līdzdarboties, veido pamatu pilsoniskai kompetencei, lai, indivīdam, izprotot savas tiesības un pienākumu, rastos apņemšanās un būtu pašāvēlība par iespējam realizēt savas tiesības, kā arī izpildīt savus pienākumus.

Pilsoniskās kompetences ietver šādas prasmes: 1) prasmi analizēt informāciju; 2) prasmi organizēt cilvēku darbību; 3) prasmi izmantot likumus (Bernstein, 2007). Izvērtējot katra indivīda iegūto pilsonisko kompetenci, jāņem vērā, ka pilsonis pastāvīgi atrodas milzīgas informācijas plūsmā un, nespējot apgūt visu informācijas daudzumu, savus spriedumus par politiskajiem procesiem balsta uz stereotipiem un autoritāšu viedokļiem (Čekse, Geske, & Grīnfelds, 2014, 278). Savu tiesību un pienākumu realizācijā pilsonim nepieciešama prasme sadarboties ar citiem sabiedrības locekļiem, vēlme un iemaņas strādāt grupā, tātad politiskās prasmes pilsonim var noderēt līdzdarbībai politiskajos procesos.

Sabiedrības pilsoniskās kompetences ir vērtējamas kā priekšnosacījums kvalitatīvi funkcionējošai demokrātiskai politiskai sistēmai, jo pilsonis, kurš jūtas kompetents, būs vairāk tendēts uz iesaistīšanos politikas procesos un jutīsies mazāk atsvešināts no valsts. Sabiedrībā ar attīstītu pilsonisku kultūru, kas orientēta uz politisku līdzdalību, iedzīvotājiem ir zināšanas par dažādiem politiskās sistēmas aspektiem un to lomu lēmumu pieņemšanā, kā arī sabiedrības iespējām ietekmēt politiskās sistēmas elementus (Carretero, Haste, & Bermudez, 2016).

Pilsonisko kompetenču novērtēšanai un tiesiskās apziņas izpētei autore veica divas fokusa grupu diskusijas ar jauniešiem vecumā no 20 līdz 28 gadiem, kuri studē augstākās izglītības iestādēs, vienā grupā uzaicinot 8 Rīgā un Pierīgā dzīvojošus jauniešus, otrā – 6 reģionos dzīvojošus jauniešus, lai aptvertu dažādos Latvijas reģionos dzīvojošos. Vecuma un izglītības grupa tika izvēlēta ar nolūku noskaidrot, vai nesen vidējo izglītību ieguvuši jaunieši, kuri turpina izglītības ieguvu augstskolās, ir pietiekami informēti par sabiedrības līdzdalības iespējām un vai tās izmantot.

Fokusa grupu diskusijas rezultāti nenorādīja būtiskas zināšanu un līdzdalības aktivitāšu atšķirības starp reģionos un Rīgā dzīvojošiem jauniešiem. Diskusijas grupas dalībnieku savu ieinteresētības līmeni politiskajos procesos vērtē kā zemu, norādot, ka valsts pārvalde darbojas savās interesēs un maz spēj

ietekmēt sabiedrības attīstības procesus. Analizējot jauniešu informācijas iegūšanas paradumus, jāatzīmē, ka, galvenokārt, informācija tiek iegūta sociālajos tīklos un internetā, reizēm ar masu mediju (pamatā, televīzijas vai radio) starpniecību. Savukārt ģimeni, draugus un tuvas paziņas ir nozīmīgākie jauniešu viedokļu un priekšstatu veidotāji par politiskajiem un valsts pārvaldes procesiem. Noskaidrojot jauniešu zināšanu iegūšanas un informācijas meklēšanas paradumus par jautājumiem, kas saistīti ar valsts vai pašvaldību institūciju darbu, jauniešu atzina, ka galvenais informācijas avots ir atbilstošo iestāžu mājaslapas, gan to vietnes sociālajos tīklos, lai gan tikai neliela daļa no jauniešiem atzina, ka seko šo iestāžu, pamatā savas pašvaldības, vietnēm sociālajos tīklos.

Lai analizētu jauniešu informētību par sabiedrības līdzdalības jautājumiem, diskusijas gaitā tika jautāts, vai jaunieši ir pievērsuši uzmanību informācijai par sabiedrības līdzdalības iespējām vai kādreiz to ir meklējuši institūcijas mājaslapās, neviens no jauniešiem nebija zinājis šādas informācijas pieejamību, kā arī nebija meklējuši šādu informāciju. Vienīgi vairums dalībnieku kā plaši pieejamu un labi zināmu minēja sabiedrības iniciatīvas platforma manabalss.lv, kurā ikviens Latvijas pilsonis var ievietot savu iniciatīvu, lai vāktu parakstus tās iesniegšanai Saeimā, kā arī parakstīt jau ievietotās iniciatīvas.

Autorei noskaidrojot, kādas sabiedrības līdzdalības iniciatīvās jaunieši ir piedalījušies, vairumā gadījumu jaunieši ir iesaistījušies dažādās aktivitātēs kā brīvprātīgie dzīvnieku patversmju darbā vai teritoriju sakopšanas talkās, reizēm snieguši atbalstu sociāli mazaizsargātām grupām (iesaistījušies izglītojošos pasākumos bērniem, devušies uz vecu ļaužu pansionātiem, piedalījušies labdarības pasākumos maznodrošinātiem vai daudz bērnu ģimenēm). Retos gadījumos jaunieši minēja, ka ir parakstījuši kādas sabiedrības iniciatīvas grupas petīciju vai iniciatīvu platformā manabalss.lv, kā arī piedalījušies pašvaldības rīkotā sabiedriskā apspriešanā. Tikai pāris jauniešu darbojas kādā nevalstiskā organizācijā. Analizējot jauniešu iniciatīvas līmeni valsts vai pašvaldības lēmumu pieņemšanas procesos, jāatzīmē, ka divos gadījumos jaunieši ir līdzdarbojušies kādā iniciatīvas grupā, kas vākusi parakstus platformā manabalss.lv, un vienā gadījumā jauniētis bija līdzdarbojies vietējās sabiedrības iniciatīvas grupā ar nolūku ietekmēt pašvaldības lēmuma pieņemšanu. Jautāti par iemesliem, kāpēc neiesaistās valsts pārvaldes procesos, jaunieši vairumā gadījumu minēja, ka nesaskata jēgu šādai rīcībai. To lielā mērā ietekmē dažādu valsts pārvaldes darbības aspektu izgaismošana medijos, kas rada negatīvu rezonansi sabiedrībā un informācijas fragmentāciju. Jauniešu skatījumā sabiedrībai nav savlaicīgi pieejama vai tikai daļēji pieejama informācija par valsts pārvaldes paveikto, plānotajiem lēmumiem un ietekmi uz iedzīvotāju dzīvi, kas vairo neuzticēšanos valsts pārvaldei un priekšstatus par to kā noslēgtu sistēmu.

Tādējādi novērtējot jauniešu pilsoniskās kompetences un līdzdalības līmeni, var secināt, ka neraugoties uz plaši pieejamajām līdzdalības platformām valsts pārvaldē un informācijas daudzveidību par līdzdalības iespējām, jauniešu vidū trūkst informētības par šiem procesiem un izpratnes par ieguvumiem no sabiedrības līdzdalības, līdz ar to ietekmējot arī jauniešu iesaistes līmeni.

Secinājumi *Conclusions*

Analizējot valdības komunikācijas darbu sabiedrības tiesiskās apziņas veidošanā, autore ir novērtējusi valsts pārvaldes veidoto juridisko un institucionālo ietvaru sabiedrības līdzdalībai, dažādas valsts pārvaldes platformas nevalstisko organizāciju un sabiedrības iesaistei, kā arī sabiedrības informētības un līdzdalības līmeni.

Normatīvo dokumentu analīze ļauj secināt, ka ir radīts pietiekams ietvars un mehānismi sabiedrības līdzdalībai valsts pārvaldes lēmumu sagatavošanas un pieņemšanas procesos, nosakot principus sabiedrības iesaistīšanai lēmumu pieņemšanas procesos, kā arī nepieciešamību un pienākumu informēt sabiedrību.

Analizējot dažādas nevalstisko organizāciju un valsts pārvaldes sadarbības platformas, jāsecina, ka lai gan ir noteikti vienoti principi sabiedrības līdzdalībai, tie tomēr visās valsts pārvaldes institūcijās netiek vienādā mērā ievēroti un uzraudzīti. Līdzdalības aktivitāšu apjoms un kvalitāte ir atkarīga gan no valsts pārvaldes darbinieku kompetences, gan no NVO kapacitātes un pieredzes konkrētajā jomā, kā arī abu pušu spējām veidot dialogu, uzklusot citu viedokļus un paužot savu pozīciju.

Vērtējot “Valdības un NVO sadarbības memoranda” īstenošanas gaitu, vērojama tendence, ka kopumā NVO iesaiste dažādās līdzdalības platformās pieaug: palielinās NVO skaits, kas iesaistās memoranda īstenošanā, pieaug NVO līdzdalība normatīvo aktu un politikas plānošanas dokumentu izstrādē, plašāk tiek organizēti dažādi sabiedrības līdzdalības pasākumi (darba grupas, sabiedriskās apspriešanas u.c.). Tomēr šīs aktivitātes aptver salīdzinoši mazu sabiedrības daļu, kas norāda, ka informācija par līdzdalības iespējām un rezultātiem plašāku sabiedrību nerasniedz.

Ekspertu skatījumā informācijas aprīte par līdzdalības jautājumiem ir labi attīstīta valsts pārvaldes un NVO līmenī, bet trūkst komunikācijas ar plašāku sabiedrību par līdzdalības iespējām un sasniegtajiem rezultātiem gan no valsts pārvaldes, gan no nevalstiskos organizāciju puses. Pie tam ir vērojams, ka ministriju aktivitāte sabiedrības informēšanas pasākumu rīkošanā ir neviendabīga.

Sabiedrības izglītošanas un līdzdalības kapacitātes veicināšana ir viens no nozīmīgākajiem faktoriem, kas ietekmē sabiedrības pilsoniskās kompetences,

lai, apzinoties savas tiesības un pienākums, iedzīvotāji spētu kvalitatīvi līdzdarboties politiskajos procesos.

Pētot jauniešu informētību un līdzdalību valsts pārvaldē, jāsecina, ka šī sabiedrības grupa ir maz informēta par līdzdalības iespējām un nozīmi valsts pārvaldē, kas ietekmē jauniešu līdzdalības aktivitāšu veidus: jaunieši ir salīdzinoši aktīvi brīvprātīgā darba veikšanā un labdarības projektu īstenošanā, bet reti līdzdarbojas lēmumu pieņemšanas līmenī.

Novērtējot NVO un jauniešu līdzdalības līmeni, pastāv lielas atšķirības dažādu sabiedrības grupu gan informētības, gan iesaistes līmenī, tādējādi valdības komunikācijā, veidojot sabiedrības tiesisko apziņu, nozīmīga vieta jāatvēl plašākas sabiedrības izglītošanai par iedzīvotāju tiesībām un pienākumiem attiecībā ar valsti, kā arī par līdzdalības nozīmi un pienesumu sabiedrības un valsts attīstībā.

Summary

Analysing the government's communication activities to develop public awareness, the author has assessed that the legal and institutional framework for public participation has been developed by the public administration, various public administration institutions and non-governmental organizations are involved in those activities, as well as the level of public awareness and participation have been increasing.

An analysis of normative documents leads to the conclusion that there is a sufficient framework and ways for public participation in the public administration decision-making process, establishing principles for public involvement in decision-making processes, as well as the need and obligation to inform the public.

Analysing various non-governmental organizations and public administration co-operation platforms, it must be concluded that although uniform principles for public participation have been established, they are not equally respected and monitored in all state administration institutions. The scope and quality of participation activities depend on the competence of the public administration staff and the capacity and experience of the NGO in the field, as well as the ability of public administration and NGO to engage in dialogue, listening to others and expressing their position.

While evaluating the implementation of the "Government and NGOs Co-operation Memorandum", there is a trend that NGO involvement in various participation platforms is increasing: the number of NGOs involved in the implementation of the Memorandum is increasing, participation of NGOs in drafting normative acts and policy planning documents is increasing, various public participation events are organized more widely (working groups, public consultations, etc.). However, these activities cover a relatively small part of society, indicating that information on participation opportunities and outcomes does not reach the wider community.

From the point of view of experts, the flow of information on participation issues is well developed at the level of public administration and NGOs, but there is a lack of communication with the wider public about the opportunities for participation and the results achieved by both public administration and non-governmental organizations. In addition, the activity of ministries in organizing public information activities is different.

Promoting the capacity of public awareness and participation is one of the most important factors influencing civic competences in society, so that citizens, being aware of their rights and obligations, can participate qualitatively in political processes.

When studying the awareness and participation of young people in public administration, it should be concluded that this group of society is little aware of the possibilities of participation and the role in public administration, which influence the types of youth participation activities: young people are relatively active in volunteering and in the implementation of charity projects, but rarely participate at the decision-making level.

When assessing the level of participation of NGOs and young people, there are great differences in the level of awareness and engagement among different groups of society, so that in communicating with the public and in the formation of public awareness, an important role should be given to educating the general public about the rights and obligations of the society in relations with the state, as well as the importance of participation and participation contribution to the development of society and the state.

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IMPACT OF HYPERLOCAL MEDIA ON LOCAL COMMUNITIES

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Abstract. Nowadays one of the channels to get information about the local environment is hyperlocal news media. It is another way to reach an audience online, as a number of users of local television, radio and newspapers is decreasing. Hyperlocals come in many different forms, but their main characteristics show them as a news source. Hyperlocal news media have much in common with weekly community newspapers – these sites focus on a small, geographically defined area, as theoretical literature about local media say. Such news sites are becoming an important part of information space because of their fastness, digital possibilities and variety of content authors. Thus, uncertainty of staff raises questions about values, behaviours and ethics of journalism.

The aim of the paper is to examine the types and functions of hyperlocal news media to clarify what kind of content is produced in hyperlocal news media and what their role is in a local community in Latvia. There were seven Latvian hyperlocal news websites analysed; the quantitative and qualitative content analysis was made to explore research questions.

An analysis of the content of the hyperlocal news media showed that it was primarily an initiative of people working in the media, not an initiative of the people themselves. Hyperlocal news media mainly inform about what is happening in the city, municipality or village, but community involvement is minimal. Overall, function to give information dominates, but the personification with the local community is not common, so it is difficult for the community to identify themselves with the media, and thus with the community.

Keywords: community, hyperlocal, hyperlocal news media, interactivity, local journalism.

Introduction

Hyperlocal news media can be called a new way to address and reach an audience who no longer wants to read the printed news media. As the idea of extinction of printed media is increasingly being discussed, hyperlocal media – news websites could be the next platform for the action of these media. An important aspect of hyperlocal media is the audience, namely their involvement in producing content. However, according to researchers, the emergence of such news media creates a crisis for traditional media and the role of audience: there are significant differences in the impact this crisis has caused in terms of audience access to news. And these differences are underpinned by power relations and, therefore, by already existing economic, cultural, and social inequalities. In

particular, while centres of power in nation states, as well as large and wealthy metropolitan areas, tend to be well served by news organizations, poorer and less densely populated areas suffer from chronic news drought. While the closure or abandonment of major urban newspapers tends to receive significant attention, the hidden big story is the growing trend of cuts, consolidation, and closure of local titles (Wahl-Jorgensen, 2019, 163).

Such websites are available to all, yet the most significant feature of these websites is their content, which only applies to a particular community. So when you talk about hyperlocal media, the concept of community becomes essential. An environment has led to the creation of such sites, namely, informing the community what is happening in their neighbourhood. If mainly printed newspapers initially carried out this function to give information to a local community, now information can be obtained in an electronic way. Although often hyperlocal news media exist as electronic versions of printed newspapers, thereby expanding their operational capabilities. Or if the printed version is no longer issued, the electronic version is stored. However, such a phenomenon would not be seen as unambiguously, since a large part of society does not use the global web as the primary location for obtaining information. In November 2018 a standard Eurobarometer survey on public confidence media was carried out following an order from the European Commission – the Internet media in Latvia was trusted by 34% of the population, 46% did not trust, while there was no opinion of 20% (Balode & Damba, 2019). Consequently, public attitudes and the consumption of websites can also be judged, namely that trust in traditional media is greater. This means that hyperlocal news media realize other functions. The aim of the paper is to examine the types and functions of hyperlocal news media to clarify what kind of content is produced in hyperlocal news media and what their role is in a local community in Latvia.

Research questions were formulated:

- a) what are the types of local news websites;
- b) what content they offer, and
- c) the way in which they constitute and strengthen local communities.

In order to find answers to these questions, seven Latvian hyperlocal news websites were analysed, the quantitative and qualitative content analysis was made to explore the research questions.

In each media environment, awareness of hyperlocal media is different because there are a number of factors that define it: the population of the country, the geographical breakdown, the system of media owners. Within this research study, the term hyperlocal news media refers to news websites that cover a city, municipality or village. It was concluded that there were hyperlocal news media representing a city, other activities in smaller geographical territories were not detected in Latvia.

What is hyperlocal news media?

To talk about hyperlocal media is to talk about what the term hyperlocal means. The term hyperlocal, which originates from the US, describes online local news and information services, normally independent from large media owners. The definition of hyperlocal media says that “hyperlocal media represent online content of news relevant to the city, village or other geographically limited community” (Radcliffe, 2013). This means that hyperlocal media take over the functions of local media, making them more accessible and interactive.

The definition can make confusion within its meaning in Latvia, as, for example, the content of websites generated by local governments partly carries out the function of hyperlocal media because, mainly, they are representing local news. Hyperlocal content can be found on different platforms and supports a number of different civil and journalism objectives, including local news, campaigns, national scrutiny (Radcliffe, 2013). In Latvia, such news sites are for almost every municipality, which may cause confusion in the audience if it is not familiar with these differences. It is essential that the name of such a site defines the geographical area and therefore also the membership of the community. For example, *rezekne.lv*, *daugavpils.lv*, *riga.lv*, *liepaja.lv*, etc. It is important that these are also the first sites that are offered in the search engine by typing the name of a specific city. They are also named as city information portals, but their authors have different tasks what they should do making these websites of city image. In this case, they are people who have the social role of the representatives of the municipality and publish the content that the sponsor considers necessary.

Professor of journalism Damian Radcliffe explains that such a typical hyperlocal website does not exist (Radcliffe, 2013). The definitions and types of hyperlocal media depend on how they are produced, for example, who are their authors, founders and content specifics. It is important that the content of such media is localised – in terms of content types and geographical sense – much more than mainstream media outlets. Such media represent the diversity of genres, not just representing news.

In the era of digital technologies, social networks are also becoming a digital place for publishing local news, namely profiles of urban territories created mainly by local community representatives on social networks. When assessing the number of visitors and followers, their popularity appears to be significant compared with the profiles of individual hyperlocal news media on a social network, for example, on facebook.com community made profile has 11 182 followers while activity of followers for hyperlocal news media is lower.

Table 1 Number of followers for hyperlocal news media profiles on facebook.com (author`s elaboration)

Hyperlocal news media profile	Number of visitors
liepajniekiem.lv	5602
rezekneszinas.lv	1624
grani.lv	5539
gorod.lv	29 660
valmieraszinas.lv	7671
jekabpilslaiks.lv	557
jelgavniekiem.lv	5245

There should be mentioned that the highest number of followers is specific to a community made profile compare with profiles which originate in hyperlocal news media. Of course, there are different functions for profiles on social networks and for hyperlocal media in the society despite both serving the community. But the common thing is the role of the author. It is unclear and usually the editorial staff is not named, which is common practice in journalism.

Talking about hyperlocal journalism, definitions about authors, producers and audience appears in different aspects. Because sometimes hyperlocal journalism is described as the practice of civic journalism, conclusions of researches show that *by providing local information, civic journalism enables citizens to act in their own communities, whereas hyperlocal media operations and their editorial choices are largely driven by market criteria* (Dickens, Couldry, & Fotopoulou, 2015).

The potential rise of the audience as a producer of news challenges journalism to rethink its professional identity, conventional understandings of its function in society and key principles – such as objectivity and diversity – that are conventionally associated with professional journalistic quality (Borger, van Hoof, & Sanders, 2016). The collapse of local journalism has serious consequences for the health of both local communities and, more broadly, democratic societies, but there is an opposite view that journalism made by non-professionals is the potential saviour of local journalism. Overall, the situation is ambiguous in spite of given online opportunities and audience involvement. However, researches show that local information and community-building activities are declining, despite of digital possibilities in space and time.

Role of community in the media environment

The concept of community may be considered in the context of different sciences for the purpose of defining the individual. In the first place, communication science has seen physical intervals as the primary feature, but

other features, such as common interests, are currently taken into account when extending the technological capabilities of the forms of communication. According to community media researcher Nicholas Jankowski, “the community is identified by a relatively limited geographical region – village, small towns, and, in some cases, the big cities” (Jankowski, 2002). However, the geographical factor is not the only one that defines the nature of the community. The formation of communities is determined by the existence of common basic values, professional, intellectual, religious, ethnic, etc. values, and therefore they are structured by three types of structural and operational features that are often interlinked. Consequently, the community is characterized by a close link between its representatives, which identifies the relationship between the group of people (Carpentier, Lie, & Servaes, 2008) and thus constitutes a collective identity. Researcher Benedict Anderson (Benedict Anderson) introduced the concept of imagined communities. B. Anderson argues that "all communities are pictured" (Anderson, 1991), which means that all objects or groups of people are pictured and their practice is just symbolic design. It does not mean that communities are false, the author stresses that "communities are imaginary, because people representing even the smallest nation will never know about all its members, never meet them or even hear about them, but have an image of their own community in mind (Anderson, 1991). The concept implies a sense of community ownership without being in one room, and “communities become one of the primary imaginations and joint reception of cases” (Appadurai, 1996). Such a view is typical of studies by anthropologists and sociologists who view the community in a wider context, assessing not only their location but also their perceptions and ways of interaction. Media discourse researcher Jan van Dijk (Van Dijk, 1997) highlights four features common to all communities: the presence of its members, social organization, language and interaction patterns, culture and common identity. Using these features, it is possible to compare “natural or real communities and virtual communities” (see Table 2).

Table 2 Types of communities (Van Dijk, 1997)

Characterization	Natural	Virtual
Nature and activity	Multiple activities	Specific activities
Social organization	Location and Time Engagement	Not linked to location and time
Language and interaction	Verbal and non-verbal	Verbal and paralanguage
Culture and identity	Homogenous	Heterogeneous

As shown in the table, the characteristics of natural communities include stability in space and time, as well as a homogenous environment as opposed to virtual communities. In the 21st century, the understanding of natural or

traditional communities is seen by the population as a movement and globalization, as it changes the physical location and view of the community as a stable, stable entity. Under the influence of certain technological, economic and social developments, the transformation of lifestyle models, political systems, etc., also takes place within the framework of communities. This means that similarly thinking persons currently drive the formation of communities. Theorists stress the rapidly changing community structure prevents the creation of a certain definition of the community, so other signs of the community may become essential over time, because a person needs to be socially integrated in one way or another. A significant sign of the community is communication; it brings the community together and makes a sense of belonging, using common communication symbols and signs. Knowing what happens in your backyard is central to local engagement, participation, and social life (Wahl-Jorgensen, 2019).

New media give new possibilities how to make communication interactive. The practice of interactivity may take the form of: interaction between readers and the journalist/editors, between readers and other readers; and between readers and the mass of the audience – when they use the news media to voice their opinion or to publish their own story (Hastjarjo, 2017).

Methodology

This paper employs an analysis of seven Latvian hyperlocal news media (news websites). The hyperlocal news media of Latvia's largest cities were selected with a different geographical scale and creator/owner (Table 3) for analysis:

- 1) hyperlocal news media, which are owned by the owners of media groups;
- 2) belong to independent owners.

Table 3 Seven selected hyperlocal news media (author`s elaboration)

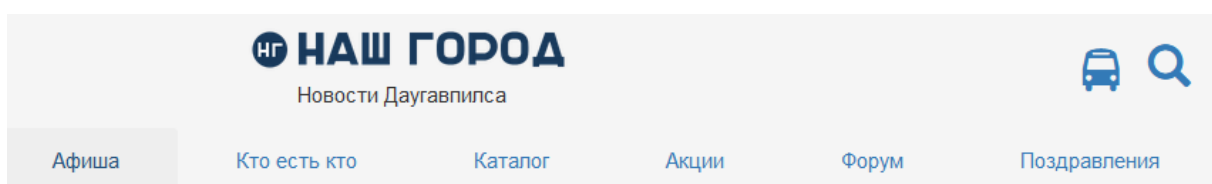
	Geographical scale	Initiated by	Cooperation with mass media
liepajniekiem.lv	Local, regional, national	Media group	Local newspaper, local television
rezekneszinas.lv	Local, national, international	News website	Local radio
grani.lv	Local, national	News website	Local newspaper
gorod.lv	Local	Media group	Local newspaper
valmieraszinas.lv	Local, regional, national	News website	Local television
jekabpilslaiks.lv	Local, national	News website	Local television
jelgavniekiem.lv	Local, national	News website	-

An important criterion was also the regular activity of websites. One of the oldest news website is gorod.lv, which was founded in 2004. It should be noted that the news site is in Russian only, as 49% of the inhabitants of Daugavpils are Russians (Latvijas iedzīvotāju nacionālais sastāvs, 2018). It means the hyperlocal media serves just the Russian speaking community of Daugavpils, while rezekneszinas.lv, liepajniekiem.lv covers information in two languages – Latvian and Russian. Hyperlocal news media with more homogenous composition of population are produced in Latvian, for example, valmieraszinas.lv, jekabpilslaiks.lv.

Data were collected in 2018, a quantitative and qualitative content analysis of the hyperlocal news websites was conducted. Community related aspects and features were categorized and tabulated, which allowed us to determine interaction with the local community.

Findings and discussion

Exploring the hyperlocal news websites, it is seen that their geographic delimitation is clearly defined but it does not appear in the content of the hyperlocal news media. As can be seen in Table 3, localised content is certainly the dominant one, but national events are represented on the sites as well. Most of the hyperlocal news websites, although they define themselves as a local news publishing and distribution site, reflect information about events in Latvia and abroad. The only website that highlights the fact of unique local news is the hyperlocal news website of Daugavpils (Figure 1). The toolbar of hyperlocal news media determines geographical scope of the content as mainly local, however, in the news section, various geographic area news are represented.



*Figure 1 Toolbar of the hyperlocal news website gorod.lv
(screenshot of hyperlocal news website www.gorod.lv)*

The purpose of hyperlocal media is to provide local information and serve the interests of a particular group of people, or community, but as the data show, the geographical area is expanded. Most often national and international information has been republished from other news sites. As it is was concluded, information about topics such as politics, economics, society is being republished from other sites. As mentioned in the previous chapter, the community is

characterized by certain social organizations in the case of virtual communities, the link to a particular area is not relevant. As it is a digitally made community, the local content is making a sense of belonging to a local community.

The dominant thematic category representing the local community is culture. Publications on museum exhibitions, theatre performances, library activities and news, cultural monuments, cultural projects, music, literature, art are dedicated to culture. For example, the news site *rezekneszinas.lv* has published 71 messages in this category in 2018, for comparison on *gorod.lv* – 297 news in 2018 have been published. This site represents regular activity as well, which represents the second largest city in Latvia by population.

As it is seen, the practice of publishing information differs from one media site to another. It is influenced by the structure of portal owners, the peculiarities of editorial work, or whether the site is authentic information or other mass media materials are used. Although the hyperlocal news media highlights the importance of local information and voice to readers on their platform, for example:

Internet portal Valmieras Zinas (www.valmieraszinas.lv) is a site where residents of Valmiera and surrounding regions can learn about current events, bright personalities and get to know different opinions and express them themselves (www.valmieraszinas.lv).

The specificity of hyperlocal media is its unique content that can be represented by community representatives within the same space, being able to be present and reflect it more accurately and in detail. Regular information about the local community promotes both the strengthening of spiritual values – its identity, as the regular reminder about unity, belonging, has a common connection with other community representatives, and practical value – providing up-to-date information on community relevant services that benefit their existence. This means that the hyperlocal news media are based on interaction between the site, the processes taking place there, and community activity.

This research shows that hyperlocal news media give a lot of space to national and international information, which does not fulfil the functions of the local community media. Digital possibilities and media business determines the role and functions of local community media instead of the structure or social organization of community. Though hyperlocal news media become a unifying digital platform for other local media, for example, local newspapers, television and radio. The status of hyperlocal news media is not clear and stable in Latvia, it is a practice which incorporates a lot of different print and electronic media with aim to make and produce news not just to cover a specific geographical territory.

Interactivity

One of the most significant characteristics of local news websites is community ties and building social activity in small communities.

Some types of interactions with audiences were identified when investigating news sites. Hyperlocal media theorists emphasize that one of the features of this media is audience participation in content creation. However, as research data show, audience engagement in content creation is minimal, audience engagement mainly involves feedback as expressing opinions and commenting, which is represented in all the explored hyperlocal news media (Table 5).

Table 4 Types of community interaction (author`s elaboration)

	Participation as an authors	Participation in forums, discussions, to comment	Specific information about community
liepajniekiem.lv	-	+	-
rezekneszinas.lv	-	+	+
grani.lv	+	+	-
gorod.lv	+	+	+
valmieraszinas.lv	+	+	-
jekabpilslaiks.lv	-	+	-
jelgavniekiem.lv	-	+	-

The common thing for all the seven hyperlocal news media is possibility to give comments under an article, but it does not mean it gives voice to the audience to participate in important decision making processes. Three of the news media (less than 50% of the explored hyperlocal news media) give possibility to participate as an author. For example, *grani.lv* offers service to download a report on an event and to be rewarded, for example, for a quality article, each can receive a gift. It is called an interaction between readers to the mass of audience – when they use the news media to voice their opinion or to publish their own story.

Community affiliation is facilitated by personalized information. It was categorized as an information representing personal data, for example dates of birth and death, mentioning persons' names. For example, *gorod.lv* publishes information about the members of the community who have gone to eternity and greetings on anniversaries; while *rezekneszinas.lv* gives opportunity to send greetings that will be broadcasted on the local radio. It is highly sensitive and personified information and can be perceived differently from readers if, for example, someone does not want to disclose such private information.

However, hyperlocal news media are not common practice in Latvia, it mostly realizes an informative function, the community is involved in news

production rarely. Mainly editorial staff create content, but their names are not made public. Anonymity is maintained and is not open communication with the community. And it is hard to state who the community is. Anonymity of the creator and sources of information does not make trust in these media, as one of the hyperlocal news media aims is connection with local community in different ways – not just giving possibility to express themselves. The invisible involvement of a community is visible on social networks, thus all hyperlocal news media are using social network as one more channel to communicate with potential community members.

As can be seen in the table, community involvement is the most active in commenting and discussions. Participation in a survey on different issues makes sense for editors of hyperlocal news media, for example:

- *are community representatives worried about Brexit?*
- *is the car ready for the winter season?*
- *do you feel the influx of pupils/students in the city?*

Thus, they can discover an opinion of the community about relevant issues at that time.

It not common practice but *liepajniekiem.lv* gives a special section called *Forums* where participants can ask questions of interest in different categories (health care, beauty care, economy, education, politics, housing, traffic, tourism, etc.). Domestic topics are the most popular subject discussed in this forum. The visibility of local groups appear mostly in discussions, thus the community is integrated in local geographical space.

Conclusions

As emphasized in community media theory (Janowitz, 1967), the essential feature of community media is the creation of consensus. Exploring the content of the hyperlocal news media reveals that it is primarily an initiative of people working in the media, not an initiative of the people themselves. Hyperlocal news media mainly inform about what is happening in the city, municipality or village, and community involvement is minimal. Overall, function to give information dominates, but the personification with the local community is not common, so it is difficult for the community to identify themselves with the media, and thus with the community.

Hyperlocal news media in Latvia are produced and affected by the media market situation. Thus, many of the authors are journalists but many of them want to stay anonymous and do not want to talk with the audience. This is evidenced of the low level of community involvement in content creation and theme selection as well. And this situation does not change one of the topicalities

mentioned in the introduction of the paper – chronic news drought happening in the poorer and less densely populated areas.

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PERSUASION IN THE LIGHT OF RESEARCH ON ADVERTISING MESSAGES

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Abstract. *The research presents the process of advertising message and the mechanisms of its influence on consumer decisions. The goal of the article is to present the findings to the research question: Do the methods and techniques used in tourism advertising messages have an impact on society? To give answer to our research question, the diagnostic survey method was adopted and a research tool was used in the form of a questionnaire, which in the interactive version was filled in by the participants of the most popular online forums. The questionnaire was available on several social networks and on a special generated page for this purpose from February 1 to May 31, 2016. The research shows that the very important mechanism of persuasion is the impact of the identification process with the person's respect and authority. An important role in the process of persuasion is also played by the content of the advertising message, which brings the recipients pleasant associations and entertains. The rules of influence used in advertising messages are no longer a new or emotional topic. Still, some moral doubts give rise to those of them which, through their physical characteristics, are difficult to grasp for human abilities and perceptive abilities, and therefore also in many cases foreign and unwanted.*

Keywords: *Rules of exerting influence, persuasion, advertising message.*

Introduction

The research was conducted as a questionnaire survey which contained 15 closed, multiple-choice questions. The questionnaire was available on several social networks from February 1 to May 31, 2016. The sample was random and anonymous. The main research goal of the study was as follows: "Do the methods and techniques used in tourism advertising messages have an impact on society"? Simultaneously, side questions have been formulated with an intent to narrow the main problem:

- Which type of advertising is the most liable for manipulation?
- What factors affect the effectiveness of advertising?
- Do recipients purchase products under the influence of advertising means?
- What is the attitude of society to advertising?
- What age group is the most susceptible to advertising mechanisms?
- To what extent is society aware of the topic of influence, persuasion and manipulation?
- Does the society feels manipulated by advertising?

Due to the targeted purpose of the research, a hypothesis was made; *"The methods and techniques contained in tourism advertising messages have an impact on society"* (Bialecki, 1992). It can be an important role in the process of creating a brand strategy for companies in various sectors of the market (Mrozowicz & Ziaja, 2012). Virtual space is becoming a huge market for this kind of activity in the present times (Ochoa Siguencia & Sadowska, 2019).

The basis for the formulation of individual research questions and the hypothesis was the analysis of literature and content referring to the subject of the sources of influence (Cialdini, 2017; Hogan, 2001; Lakhani, 2013).

With the help of these materials we come to the conclusion that using the elements contained in the mass media and the general form of the recipient are more likely to act on the purchase of the promoted product. However, the number of occurrences and huge advertising messages become monotonous and consequently begin to irritate the recipients, which reduces the effect of manipulation. Consumers' awareness of techniques of exerting influence also reduces the effect of their impact; however, address messages are certain that advertising is not a reliable source of information about a given product. Unfortunately, they still have a sense of manipulation at the source, or the sense of exerting influence in their subconscious. It follows that even if your ads are a well-known phrase among the mass, social networking is still a dangerous source of manipulation of the audience.

The research was purely cognitive and therefore can be used for deeper analysis that studies issues related to the influence of tourism businesses.

Mechanisms of social influence in advertising messages

As Cialdini (2017) notes: "Psychologists have long been aware of the power of human striving for compatibility between words, attitudes and deeds", which significantly affects the shopping motivation. An indispensable role in this process is played by marketing perception of the situation, the so-called privileged moments (Cialdini, 2017; Hogan, 2001; Lakhani, 2013), directed by

impact emitters for acceleration and methods of satisfying previously stimulated needs.

Where does the power of mechanisms of social influence come from? Man, as a social being, but at the same time the biologically determined product of phylogenetic existence as a member of the human community is characterized by "(...) tendency to trigger the entire sequence of such mechanical behaviour by the appearance of only one specific feature in the environment. The ability to react to this trait (trigger) usually turns out to be very beneficial for the body, because it enables immediate implementation of adequate action without going into detailed and time-consuming analysis of all available information" (Cialdini, 2017).

The essence of such automation, (...) the advantages of such shortening are related to the effectiveness and economics of the action - reacting automatically to an important trigger, the body saves precious time, energy and own mental resources that can be used for something else (...). (...); however, it increases the probability of making a mistake, especially in the case of automatic and unreflective response, (...) when some other entity tries to induce in the body the given automatism (by means of purposeful manipulation of the presence of triggers) ".

The cognitive-social mechanism mentioned above is associated with mechanisms of persuasion and manipulation. The most important element that distinguishes persuasion from all manipulative manipulations is the assumption "that the recipient is an intellectually active entity, and the broadcaster has honest intentions and intentions" (Hogan, 2001). In the case of manipulation, it is generally assumed that "this is a form of deliberate exertion on the flow of a second person or a group in such a way as to realize, without being aware of it, actions that meet the needs of the manipulator" (Siemieniecki, 2007, 15). It is considered to be "conscious and intentional concealment of the real goals of actions, masking the fact of intentional influence on individuals or groups of people" (Grzywa, 2010; Nagody-Mrozowicz, 2017).

In this paper, it was deliberately decided to omit the problems of psychomanipulation and behaviour modelling through the sub-progical (subliminal) message due to the huge complexity of the issue, the controversial outcome of research, and thus also the scientific polarization of views and their ambiguity. This problem itself is extremely interesting and worthy of interest not only on the scientific side, but above all practical and social.

According to Lewiński, an effective persuasive act should consist of five overlapping spheres: participation in the discourse, understanding the object of persuasion, submission to persuasion, internalization of acquired beliefs and behaviour consistent with the sender's intentions (Lewiński, 2009). Manipulation is one of the threats that can be encountered in a globalized

world. The dangers associated with it are constantly increasing along with technological progress and the development of mass media, through which it can be used on an unprecedented scale.

Puzynina (1992) proposes to divide the manipulation into two types:

- *Manipulation by means of language* - exerting influence through appropriate application of linguistic means (syntactic dimension, features of expression and grammatical structures, e.g. presupposition, paraphrase, periphrases, metaphor).
- Language manipulation - the use of language content as a kind of code that serves the transmission of data (semantic dimension, meaning and meaning of expression).

A very popular manipulation technique included in advertising messages is fragmentation. It consists in showing only a few selected features of the product or service, or only the content of the promotional offer that will attract the viewer's attention.

Other issues are left out. In this case, the consumer receives a message about impoverished content, filtered and deformed (Lepa, 1997). The potential client is not able to objectively evaluate the advertised goods, moreover, the sender of the message seeks to limit the rational assessment as much as possible and make him/her want to buy. Instead, s/he becomes a victim of fragmentation, because s/he learns that a given article is new, better, unseen, rare, unique (keywords - keys). These adjectives are ambiguous, they can be interpreted in many ways, and their rejection becomes almost impossible. They work like the so-called "triggers" by Cialdini (2017), which open the mind of the buyer to the planned content or direct its actions to the suggested, indicated purpose of consumption.

The message manipulation techniques are another manipulative technique in advertising (Cialdini, 2009). Most often found in commercials, where the results of research and the opinion of scientific authority are shown, probably not existing or presented in a veiled and unclear way.

It belongs to this kind of manipulation by the authority of the pseudoscientific congregation of specialists in which the actors are professional actors. In this way, the creator of the advertisement wants to inspire confidence in the target group, and the famous actor, musician, sportsman, model, popular weather presenter, singer, word of the referee of quality and reliability, a trust steward, becomes an authority in advertising.

The next popular method is varieties of valuation words, flattery and compliments. Their task is to convince the recipient that the product is unique, unique and innovative, which will satisfy the most sophisticated desires and needs.

Such phrases that improve the product serve to distinguish it from other, every day, "everyday" and "inferior" ones (Lepa, 1997). Currently, a lot is heard about a healthy lifestyle, being close to nature, living in harmony with the natural environment, while alerting the recipient against all "traditional", "ordinary" preparations contained in everyday products (Bralczyk, 2000)

For this reason, the advertising producers patented a new way to increase the efficiency of the advertising message; they began to influence the recipient suggesting a healthy lifestyle, only after buying a specific product. This type of communication includes assurances such as: "Naturally good", "Natural taste", "Good by nature", "Joy from Nature", "You have it in nature" or "Inspiration draws straight from the mountains" (Quotes from advertising tendencies) Word - the trigger evokes the encoded image, releases positive emotions and triggers the intended reaction.

Very often in advertising messages you can meet with phrases and memorable sentences. They are catchy, because they refer to snappy slogans and proverbs matched to the advertised product. After that, they use the so-called confirmation effect when the decision of the decision maker coincides with the heard motto. Thanks to such a procedure, a relationship is created between the recipient and the sender of the message, as a result of which the client begins to trust the intentions of the creators of the advertisement. The play of words in sentences evokes curiosity because of the accuracy, and the viewer watching an advertising spot will certainly not be indifferent to the suppositions coded in inspirations such as "Let yourself be carried away by fantasy" or "Life takes on colours". (Quotes from advertising trends). In fact, these words mean nothing, but rather trigger, or rather trigger, positive images and associations. Their meaning is therefore instrumental.

Methodology and research results

Survey research was carried out at the turn of 2015/2016. At the pilot stage of the research, problems, questions and research hypotheses were formulated. Prepared at the initial stage and made available in the proper questionnaire, the questionnaire contained 15 closed multiple-choice questions that diagnose the respondents' opinions on persuasive mechanisms used by advertising messages. The questionnaire was available on several social networks and on the generated page. The survey could be completed anonymously from February 1 to May 31, 2016, which ensured impartiality and anonymity of the research. It should be emphasized that the participation in the study was entirely voluntary and un-sponsored, which significantly affected the size of the sample. Perhaps a longer period of questionnaire activity would affect the number of turnout, but a form of voluntary participation in the study provides representativeness of

views and attitudes that consciously as shown, can be regarded as realistic and true.

In the specific phase of the study, a sample of N = 98 was obtained (61% women and 39% men). The selection of the sample was random. The structure of the study group was dominated by people aged 18-34 (54%), with secondary education (70%), living in a city (88%), describing their material situation as good (88%).

These studies demonstrate that the respondents were affected by the greatest transfer of television advertising, almost everyone gave opinions that they buy under the influence of advertising and first place was followed by groceries and household appliances.

The content of advertising messages that mainly attracts the recipient's attention are: humour (66%) and thrilling music (50%), accompanied by: a catchy advertising slogan (28%) and emotional charge (26%).

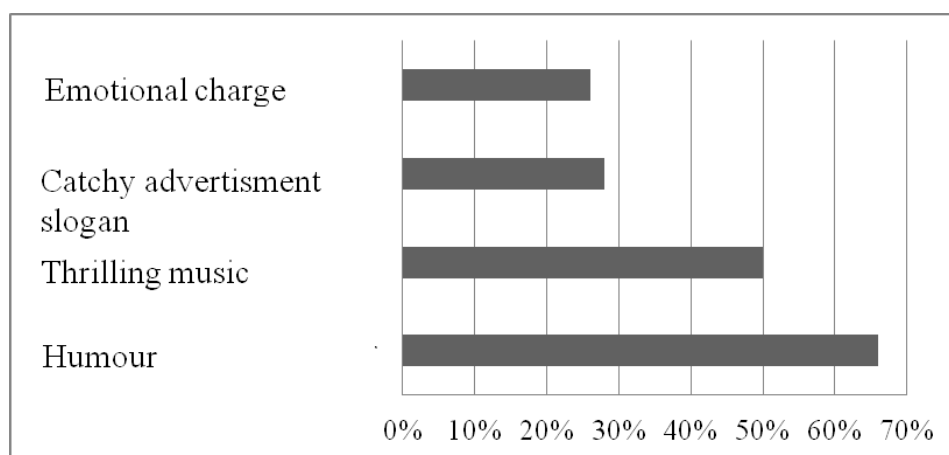


Figure 1 Advertising messages' content (own study)

The advertising media, which attract the attention of the respondents in a special way, are TV (68%), street billboards (54%) and the Internet (52%). The respondents almost unanimously admitted that they made purchases under the influence of advertising (90%). The most commonly bought goods were: food (68%) and home appliances (64%). The respondents assessed the quality of the content of advertisements fairly low: they were indifferent (44%) or bored (34%) and even irritated (28%). The respondents expressed the opinion that children (40%), adolescents (26%) and the elderly (24%) were the most susceptible to the impact of advertising.

Persuasion and related techniques of exerting influence were known to every third subject (28%); perhaps it was about assisted recognition, not spontaneous recognition. The respondents, on the other hand, believed that the content of advertisements was not credible (66%), which was not covered by

the law of every tenth respondent (12%). Every third respondent (30%) felt that the content of advertisements was being manipulated.

Conclusion

In the light of the research carried out, several conclusions can be drawn:

- Consumers are susceptible to advertising impact, especially one that is based on emotional impact. Humour and music form the basis of an advertising message.
- The quality of the advertising message is low and unreliable, so the impact on consumer behaviour does not reach its persuasive potential.
- Consumers are generally aware of the fact that the advertising message next to the information content contains a suggestive message motivating to choose a given product.

The issue of influencing human behaviour includes many threads. One of them is modelling the impact of the group and learning social behaviour by following and internalizing the norms and rules of conduct used in it. Persuasive mechanisms, which are based on phylogenetically shaped social processes, are almost completely unnoticeable due to their naturalness.

The research hypothesis put forward: *"The methods and techniques included in tourist advertisements of tourist enterprises have an impact on society."* has been confirmed after analysis of the obtained test results.

The research hypothesis put forward: *"The methods and techniques included in tourist advertisements of tourist enterprises have an impact on society."* It was confirmed after analysis of the obtained research results.

The influence of the processes of influence that accompany the individual throughout his/her life and which regulate interpersonal relationships form the basis of social life cannot be overestimated. In conclusion, it should be stated that the universality of persuasive mechanisms, both those regulating interpersonal relations as well as those contained in advertising messages, makes their subtle impact to undetectably modify the decision-making processes of the individual.

Summary

The research shows that despite the critical perception of the blogosphere, especially through the Internet, it is an influential group that inspires and motivates the actions of their customers, so it can not be underestimated, and there should be established strong cooperation and it should be treated as another medium to influence the purchasing decisions of customers. With the influence of elements contained in the mass media and their general form, the customers are more inclined to buy

promotional products. However, a huge number of advertising messages makes them become monotonous and consequently begin to irritate the possible customers, which reduces the effect of manipulation.

Acknowledgements

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SUSTAINABILITY ASPECT OF TOURISM DEVELOPMENT IN THE EAST AUKŠTAITIJA REGION, IN LITHUANIA

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Abstract. *The author of the paper discusses the tourism development from the sustainability aspect in the East Aukštaitija region, in Lithuania. The scientific problem - the tourism development trends have not been sufficiently studied at regional level in Lithuania and tourism in the regions developed without a clear long-term development strategy and consistent implementation of the programme. The aim of the research is to explore tourism development by sustainability aspect in the East Aukštaitija region, in Lithuania. Many scientists have analysed trends in sustainable tourism development. However, tourism development conditions at region level have not been researched, only sporadic research studies have been performed. The main problems of tourism development in the aspect of sustainability in the East Aukštaitija region are as follows: seasonality, lack of investment in sustainable tourism, lack of knowledge about the essence of sustainable tourism and the principles of local politics, undeveloped infrastructure. The most important activities for the development of sustainable tourism are the responsible tourist approach to the use of natural resources; investment in sustainable tourism development; tourism development, planning and control; legalization of sustainable tourism development in national strategic documents.*

Keywords: *tourism, tourism development, tourism region, sustainability.*

Introduction

Due to the influence of economic, social and political globalization processes, tourism has become one of the leading industries in many countries. According to the data of the United Nations World Tourism Organization (UNWTO) (2017) and the World Travel and Tourism Council (WTTC) (2017), currently tourism is the third largest economic sector in the world and on a global scale creates 10% of gross domestic product (GDP). The tourism sector employs 1 in 10 people worldwide, revenue from tourism services exports in 2017 accounted for 30% of global services exports and 7% of global exports of goods and services. In 2017, total revenue from the tourism sector in Lithuania amounted to EUR 2.03 billion or 4.9 percent of GDP, tourism services accounted for 4% of total exports of goods and services (Report of the Lithuanian Hotel and Restaurant Association (RLHRA), 2018). It is forecasted that the number of international

tourists could increase up to 1.8 billion by 2030. Over the last decade, tourism has become an important economic sector in Lithuania - since 2009 each year inbound tourism revenue steadily has increased. Tourism is an economic activity that primarily promotes economic growth, but in order to maintain competitiveness in the international tourism market, it is necessary to seek sustainable tourism development, which is an assumption for creating a competitive tourism system (National Tourism Development Programme 2014-2020) [NTDP 2014-2020]. Promoting the development of tourism business, based on the concept of sustainable tourism development, there is a need to plan and manage the available tourism resources accordingly.

Many scientists have analysed trends in sustainable tourism development: Hunter (1997) & Hassan (2000) analysed the main principles of sustainable development; Hall (2004) & Woodside (2009) analysed the concept of sustainable tourism; Niedziolka (2012) analysed the guidelines for sustainable tourism development and management practices; Jovovic (2013) analysed sustainable development in the context of tourism and others. In Lithuania these issues were analysed by Čiegis & Zeleniūtė (2008) and Armaitienė & Zacharčenko (2012) and others. Povilanskas (2010) explored the principles and conditions for sustainable development of resorts. However, tourism development conditions at region level have not been researched, only sporadic research studies have been performed.

The object of the research is tourism development from the sustainability aspect in the East Aukštaitija region, in Lithuania.

The aim of the research is to explore tourism development from the sustainability aspect in the East Aukštaitija region, in Lithuania.

Tasks of the research are:

1. To explore tourism development from the sustainability aspect in the regions from the theoretical aspect.
2. To analyse tourism development from the sustainability aspect in the East Aukštaitija region, in Lithuania.

Research methods. The author of the paper applied the analysis of scientific literature, quantitative research – a survey, document analysis and questionnaire data generalization. Taking into account the specifics of research, this method is considered to be an important data collection method. Data sources: RLHRA 2018, NTDP 2014-2020 and others documents. Tourism development from the sustainability aspect was discussed and the research results were presented.

The survey sample. The survey involved 5 tourism experts, specialists, responsible for tourism development in tourism information centres and tourism and business information centres in the five districts of the East Aukštaitija region, Lithuania (representatives of the Anykščiai and Molėtai tourism and business information centers and the Ignalina, Utena, Zarasai tourism information centres).

The paper introduces a discussion in the form of discourse on sustainable development in the East Aukštaitija region, in Lithuania.

Scientific discussion on the topic of sustainable tourism development in the regions

Sustainable development is a fundamental principle of future development, began to develop in 1980 and is widely recognized in recent years. The basics of the concept of sustainable development were formulated in 1980 in the World Defence Strategy, published on behalf of three international institutions: the International Union of Nature Conservation (IUCN), the United Nations Environment Programmes (UNEP) and the World Wildlife Fund (WWF). The document declares that the rational use of natural resources is an integral part not only of public development but also of environmental protection. The World Commission on Environment and Development's report "Our Common Future, 1987" (Report of the World..., 1987) formulated the concept of sustainable development.

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Report of the World..., 1987). In 2003, this term was legalized in the National Strategy for Sustainable Development (NSSD) approved by the Lithuanian Government. The European Union (EU) has also paid much attention to the development of sustainable tourism. The EU Sustainable Tourism Development Policy is implemented through the European Commission's Communications "Basic orientations for sustainability of European tourism" (2003), "A renewed EU Tourism Policy: towards a stronger partnership for European tourism" (2006) and "Agenda for a sustainable and competitive European Tourism" (2007).

According to the definition of the UN WTO, „sustainable tourism development meets the needs of today's tourists and host regions while protecting and enhancing their future potential. Such development should lead to the management of all resources that will meet the economic, social and aesthetic needs while preserving cultural integrity, essential ecological processes and biodiversity and life support systems”. Sustainable tourism must maintain a high level of tourist satisfaction, provide tourists with meaningful awareness of sustainability issues, and promote sustainable tourism practices among them.

Woodside (2009) argues that the concept of sustainable tourism encompasses three approaches: tourism dynamics, sustainability and overall dependency. The dynamics of tourism influence the economy of the region, the physical health of the region's inhabitants and the regional environment (environmental protection). Sustainability is the use of natural resources without

harm or destruction ecological balance. General dependence is emerging between tourism and the economy or natural resources.

According to Hall (2004), sustainable tourism is often compared to natural or ecotourism. Analysing sustainable tourism activities, it is important to understand what types of tourism it covers. According to Niedziolka (2012), sustainable tourism development guidelines and management practices apply to all forms of tourism, including mass tourism and various other tourist segments.

Armaitienė & Zacharčenko (2012) argues that sustainable tourism development is a tourism development and planning concept that encourages the development of tourism while preserving the natural environment of nature and culture.

Sustainability requires the harmonization of environmental, social and economic needs. Three key principles for sustainable tourism development are distinguished: 1) Economic sustainability; 2) Social sustainability. 3) Sustainability of the environment. These three factors in many cases depend on each other and can be both mutually reinforcing and competing areas of activity.

Each country or region needs to set its own priorities and goals in developing tourism. On a global scale, tourism, which is one of the largest service sectors, continues to develop intensively, resulting in both positive and negative impacts on a variety of macro environments: economic, social and natural. Creating tourism destination attractiveness requires adapting the concept of sustainable tourism development, which can be used to plan tourism activities in different regions. Sustainable tourism development is an assumption for a competitive tourism system.

In 2005 the UN WTO and the UN Environment Programme have set an agenda for twelve sustainable tourism goals that include economic viability, local prosperity, quality of work, social equality, a visitor's satisfaction, local control, community prosperity, cultural richness, physical integrity, biodiversity, resource conservation and environmental purity (Action for more sustainable European tourism, 2007). The overall challenge for the tourism sector is to remain competitive, while at the same time covering sustainability and recognizing that long-term competitiveness depends on coherence.

Global practice shows that the principles of sustainable tourism need to be clearly defined and consistently and logically integrated into the country's legal and regulatory framework, including legislation related to tourism development, to ensure the development of sustainable tourism. Strategic documents such as the NSSD (2011) and the LTDP 2014-2020 should be mentioned. The goal of sustainable development in Lithuania is set as follows: to reach the current EU average in terms of economic and social efficiency by 2020, do not exceed EU allowable standards in accordance with environmental pollution targets, and comply with the requirements of international conventions limiting environmental

pollution and contribution to global climate change (NSSD, 2011). It is noticeable that the LTDP 2014-2020 does not include indicators to measure the impact of tourism on the environment, cultural heritage and local communities. Such tourism indicators are very important in helping to identify problem areas that may arise in tourism destinations.

The trends and priorities of the world are changing, so it is now especially important that the tourism sector would be competitive and sustainable. By integrating sustainability factors into their activities, the participants of the tourism sector will save its competitive advantage.

According to the Guidelines for sustainable tourism development of the Republic of Lithuania (2017), the seeking results of sustainable tourism development are as follows:

- annual rise of Lithuania's position in the competitiveness and tourism competitiveness index by three places from the previous year's level;
- growth of tourism in the regions, with the result that at least 30% foreign tourists to visit the regions by 2025;
- increase in the number of internationally certified tourism service providers up to 25 entities until 2025;
- annual growth of tourism-generated GDP by 3% on average every year from last year's level, increasing the GDP generated by tourism to 5% by 2020, achieving the current average of the European Union;
- annual increase in export of tourism services by 15% every year from last year's level.

One of the priorities for the promotion of sustainable tourism development is to consolidate the development of regional tourism as one of the strategic goals of Lithuanian tourism development. Sustainable tourism ensures fair economic return to the local community, the protection of cultural and natural heritage.

In summary, sustainable tourism as a priority branch in Lithuania is quite new and therefore there are various problems. The solution of tourism problems can only be solved by balanced state organization (government, the Ministry of the Economy and Innovation, policy makers) and the Tourism department, which will implement and coordinate action plans to promote the improvement of tourism business in the country. In order to meet the needs of sustainable tourism and to popularize its ideas, a number of special programmes have been developed, with their exclusive labelling forms allowed. Certification is one of the key and widely applied tools to ensure the integration of sustainable development principles into the tourism sector and the competitiveness of the sector. There are well-known international certification programmes in the world to ensure consumer confidence. More and more consumers from Western Europe, the Nordic countries and distant markets are choosing certified services and agree to

pay higher prices for them. Currently widely recognized international certificates are “Green Key” and “Blue Flag”.

Analysis of tourism development from the sustainability aspect in East Aukštaitija region

The survey involved 5 tourism experts, specialists, responsible for tourism development in tourism information centers and tourism and business information centres in five districts of the East Aukštaitija region, Lithuania. The tourism experts were asked to evaluate sustainable development performance indicators for the East Aukštaitija region from the lowest (1 point) to the highest score (10 points). The distribution of the results of the received answers is presented in Fig. 1, where the graphical representation of the current situation (blue line) and trends (red line) in sustainable development is presented.

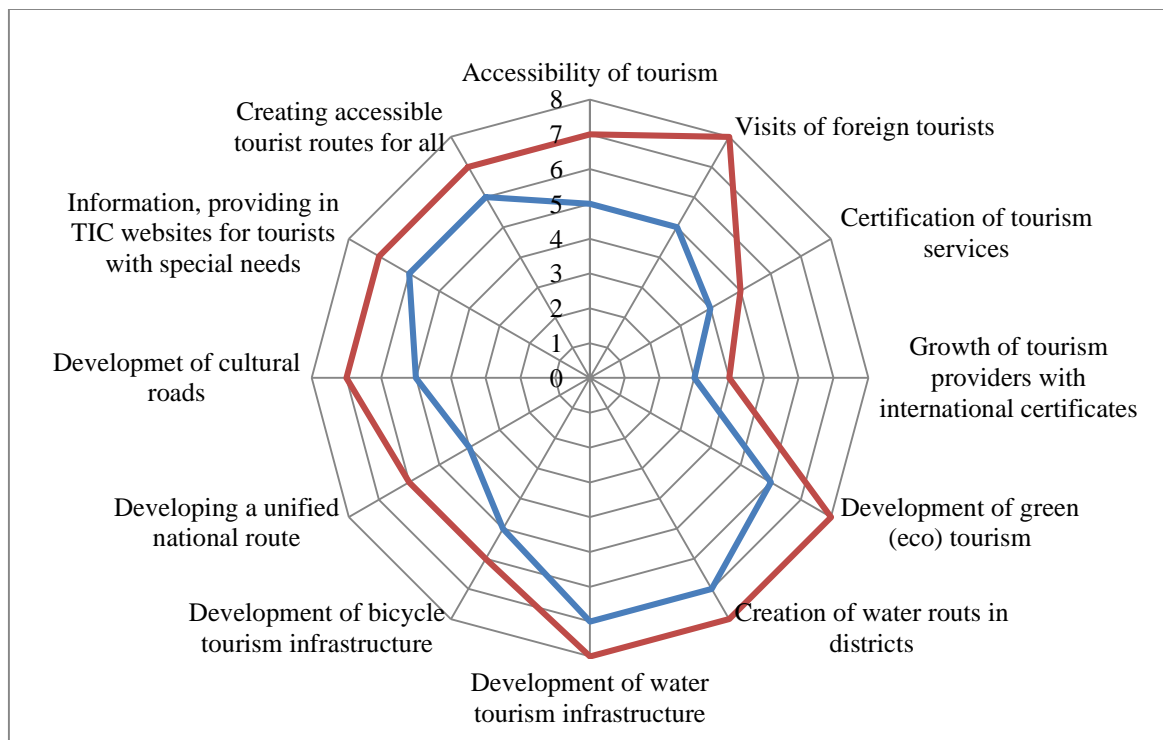


Figure 1 Evaluation of the current situation and trends in sustainable development (created by the author based on the research)

None of the sustainable development results indicator was rated at 9 or 10 by the tourism experts. The fact that these indicators were evaluated by the tourism experts at a rather low score indicated that sustainable tourism in the East Aukštaitija region was developed only in protected areas. The region is distinguished by the abundance of state-protected areas - the protected area covers

an area of 147345.73 ha (20.46% of the region's territory). Looking at the assessment of the current situation and trends in the sustainable development results indicators for individual districts, it should be noted that one of the five districts of the East Aukštaitija region evaluated the development of water routes at 10 points. It should be noted that there are 1002 lakes in the region of East Aukštaitija (The feasibility Study. Targeted investment in tourism development in East Aukštaitija Region, 2013).

Assessing the current situation of sustainable development, indicators such as the development of water routes in a district (average score of 7 points) and the development of public and private infrastructure for water tourism and the development of regional routes (average score 7 points) were evaluated. A little lower score was given to green (ecotourism) (average score of 6 points); official TIC sites on a separate column provide information for tourists with special needs (average score of 6 points) and routes accessible to all (including people with disabilities (average score of 6 points)).

Even lower scores indicate sustainable development with indicators such as accessibility of tourism sites (accessibility to disabled people) (average score of 5 points); foreign tourists visits (average score of 5 points); development of bicycle tourism infrastructure (average of 5 points), creation regional routes and the development of cultural roads (average of 5 points).

The tourism experts gave the lowest scores to the increase in the number of tourism service providers having international certificates (average score of 3 points); certification of tourism services (average score of 4 points) and development of a unified national route linking different regions of Lithuania and enabling tourists to plan longer-term trips (average score of 4 points). It should be noted that there are no institutions actively distributing certificates in Lithuania. In Lithuania, the Global Sustainable Tourism Council's certification is not used for hotels, tour operators and tourist destinations. Certification is particularly important in the health tourism sector. Unfortunately, the natural health factors (clay, water, sludge, etc.) currently used in Lithuania are not certified. Certification would not only encourage responsible use of natural resources and the reduction of environmental impact, but would also contribute to a more successful image of Lithuania as a modern and international country that complies with international tourism standards. Therefore, in order to increase the visibility of Lithuania as a tourism destination, as well as its competitiveness, it is necessary to actively promote the certification of sustainable tourism services. The Sustainable Tourism Guidelines (2017) recommend sustainable tourism promotion activities.

When evaluating the average trends of sustainable development result indicators, indicators such as visits of foreign tourists (average score of 8 points) were rated at the highest score; development of green (ecological) tourism

(average score of 8 points); creating water routes in the area (average score of 8 points); development of public and private infrastructure for water tourism (average score of 8 points); creating regional routes (average score of 8 points). All assumptions for the development of eco-tourism are developed in Aukštaitija National Park and other state regional parks of the East Aukštaitija tourism region (Utena Region Development plan for 2014-2020).

Low scores were given to sustainable development performance trend indicators such as bicycle tourism infrastructure development, regional routes (average score of 6 points) and the development of a unified national route linking different regions of Lithuania and enabling tourists to plan longer-term trips (average score 6 points).

Evaluating the average trends of sustainable development performance indicators, the lowest score was measured by indicators such as increase in the number of tourism service providers with international certifications (average score of 4 points) and the certification of tourism services (average score of 5 points).

When analysing the problems of sustainable tourism development in the region of East Aukštaitija, the most important ones are highlighted: seasonality, insufficient investment in sustainable tourism, lack of information and lack of knowledge about the essence and principles of sustainable tourism in local policies.

The tourism experts, asked to mark the three most important activities affecting the development of sustainable tourism, identified the importance of investments in sustainable tourism development, the importance of tourism development, planning and control, and the importance of a responsible tourist approach to the use of natural resources.

Conclusions

1. Sustainable tourism development in the regions is an assumption for a competitive tourism system. In the long term, competitiveness depends on sustainability. Sustainable regional development is part of a global sustainable development, and sustainable development is one of the components of regional success.
2. The tourism experts gave the lowest scores to the increase in the number of tourism service providers having international certificates; certification of tourism services and development of a unified national route linking different regions of Lithuania and enabling tourists to plan longer-term trips. Analysing tourism development from the sustainability aspect in the East Aukštaitija region, in Lithuania, the most important problems are highlighted: seasonality, insufficient investment in sustainable tourism, lack

of information and lack of knowledge about the essence and principles of sustainable tourism in local policies. The tourism experts noted three most important activities affecting the sustainable development of tourism: the importance of investing in sustainable tourism development, the importance of tourism development, planning and control, and the importance of a responsible tourist approach to the use of natural resources.

Summary

The author of the paper discusses the tourism development from the sustainability aspect in the East Aukštaitija region, in Lithuania. The scientific problem - the tourism development trends have not been studied at region level in Lithuania and tourism in regions developed without a clear long-term development strategy and consistent implementation of the programme. In the scientific discussion, the author analyses aspects of sustainable tourism development in the regions: many scientists have analysed trends in sustainable tourism development. However, tourism development conditions at region level have not been researched, only sporadic research studies have been performed. Tourism development from the sustainability aspect is discussed; the results of the research (analysis of scientific literature and a questionnaire, analysis of strategic documents) are performed. It is widely acknowledged that tourism can significantly affect the local environment. Tourism can make positive and negative impacts on the regions and countries. The positive impact of tourism can contribute to the sustainable development of the region. However, despite its high positive impact, tourism still has many negative consequences for the natural, economic and cultural environment of the host region and the world. The goal of Sustainable Tourism Development is to minimize negative impacts and maximize positive impacts. In summary, sustainable tourism as a priority branch in Lithuania is quite new and therefore there are various problems. The main problems of tourism development in the aspect of sustainability in the East Aukštaitija region are as follows: seasonality, lack of investment in sustainable tourism, lack of knowledge about the essence of sustainable tourism and the principles of local politics, undeveloped infrastructure. The most important activities for the development of sustainable tourism are the responsible tourist approach to the use of natural resources; investment in sustainable tourism development; tourism development, planning and control; legalization of sustainable tourism development in national strategic documents.

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GLOBAL G.A.P. AND INTEGRATED PLANT PRODUCTION AS A PART OF THE INTERNALIZATION OF AGRICULTURAL FARMS

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Abstract. *Internationalization of farms involved in agricultural production requires ensuring appropriate quality of products, compliant with requirements of specific markets. Consumers from developed countries more and more often draw attention to the origin of food products and confirmation that they were produced in accordance with recognized environmental standards, while simultaneously respecting human rights. The aim of this research study was to assess the extent of changes in production technology and in the management system under conditions of implementing the GLOBAL G.A.P. system on selected fruit and vegetable farms associated in producer groups. The second aim was to evaluate the quantity of sold products along with specific certificates. The research was conducted in 2016; 91 vegetable farms and 71 fruit farms were studied. The results of the conducted research show that implementation of standards required creation of a quality management system on all the studied farms. The implementation of standards required creation of procedures for production management as well as the traceability system. The implementation of standards caused the necessity to change the infrastructure for storage and use of plant protection products and fertilizers, as well as infrastructure improving workers' social conditions. The study results indicate that changes associated with the implementation of the GLOBAL G.A.P. standard applied more to vegetable farms than fruit farms. The implementation of the GLOBAL G.A.P. standard significantly increased producers' chances to introduce products on the market through commercial networks and by selling them to foreign markets.*

Keywords: *Certification, farm internationalization, GLOBAL G.A.P., quality systems, food safety*

Introduction

Globalization of the agri-food product market leads to the need to ensure product safety in the entire supply chain (Kocira, Kuboń, & Sporysz 2017). Quality management systems in food processing, as well as at individual stages of the logistic chain, have been being implemented since the beginning of the 1970s. The HACCP system is the basic quality management system in food processing. It ensures execution of a risk analysis for the processes being carried out, as well as identification of the critical control points. The HACCP system is obligatory in food processing, in order to prevent food safety hazards (Regulation (EC) No 852/2004). Development of quality management systems in primary production resulted from the risk of pollution (intentional or unintentional) of products at the stage of crop cultivation, harvest and post-harvest measures (Szeląg-Sikora, Niemiec, Sikora, & Chowaniak, 2017). Optimization of production and logistics processes is very important in order to reduce energy consumption and increase work efficiency (Kuboń & Krasnodębski, 2010; Ivanyshyn et al., 2018). Food safety at the stage of primary production is therefore strategic in production of food, of both plant and animal origin. Farm control systems and systems used to ensure production safety are created at the national level in many countries and so they can vary. This results from the economic, cultural, climatic or political conditions. There is therefore a risk that products generated in compliance with local law will not meet the quality criteria demanded by consumers in target countries (Rajkovic et al., 2017). It applies particularly to issues connected with environmental and social aspects in developing countries. Presently, among environmental aspects, the amount of emission of greenhouse gases is very important, not only at the stage of production but also of distribution of products (Jacyna, Wasiak, Lewczuk, Chamier-Gliszczyński, & Dąbrowski, 2018). Food production consistent with local law in these countries is frequently insufficient to satisfy the aware consumer. Generally, local legislation in the countries that are part of the World Trade Organization is compliant with international standards concerning microbiological safety, content of pesticide residues in products or phytosanitary safety (Zhang, Godefroy, Lyu, Sun, & Fan, 2018; Chaoniruthisai, Punnakitikashem, & Rajchamaha, 2018). However, requirements of commercial networks are very frequently more restrictive than it stems from legislation. It is possible to meet them through formal quality management systems, the most popular of which is GLOBAL G.A.P. (Good Agricultural Practice). The GLOBAL G.A.P. standard was created based on HACCP, Cdex Alimentarius as well as Good Agricultural Practices. Decisions associated with production as well as management of soil and infrastructure should be made based on risk analysis (Kibet, Obare, & Lagat, 2018). Implementation of a quality system at the level of primary production

involves incurring costs of changes in production technology, as well as costs of infrastructure indispensable to ensure compliance with the principles of the standard. Improvement of the position on the goods market as well as increasing the chances of acquiring new markets in other countries are the expected effect of implementing a standard. Vegetable and fruit production in Poland is aimed at export, both to third countries as well as within the European Union (Szelaǵ-Sikora, Cupiał, & Niemiec, 2015). Apples, carrot, onion and soft fruits are among the most important plants in Poland intended for foreign markets. Being in possession of the GLOBAL G.A.P. certificate is very often a fundamental criterion for the possibility of product sales. GLOBAL G.A.P. is a food quality system that is based on sustainable use of environmental resources, energy, as well as means of production. The purpose of this system is to generate yields of good quality while maintaining production profitability. According to the assumptions of this system, pesticide use should be preceded by results of in-depth monitoring of crops, as well as in the situation when non-chemical protection methods turned out to be ineffective. Fertilization should be preceded by execution of soil tests and adjustment of fertilizer doses to plant nutritional requirements (Niemiec, Cupiał, & Szelaǵ-Sikora, 2015), whereas tests of water, natural fertilizers and products should result from the risk analysis. Organic materials used for fertilization may contain substances harmful to plants or product safety (Sikora, Niemiec, & Szelaǵ-Sikora, 2018). The primary purpose of the standard is to assess safety of plant products introduced into the market and to reduce the negative impact of agriculture on the natural environment. An additional purpose is to build a positive image of agriculture.

The aim of this research study was to assess the extent of changes in production technologies and the management system under conditions of implementation of the GLOBAL G.A.P. system on selected fruit and vegetable farms. The second aim was to evaluate the effect of implementing the standard on the potential of selling the products through commercial networks and to foreign markets.

Materials and methods

To achieve the established aim, a survey was conducted in 2016. The survey comprised 91 vegetable farms and 71 fruit farms. Farms associated in producer groups as well as individual farms were selected for the survey. The material for the research was selected using the targeted selection method. The selection criteria concerned the scale of production and the economic significance of the cultivated plants. The farms were located in the following provinces: Małopolskie, Łódzkie, Mazowieckie, Kujawsko-pomorskie, Świętokrzyskie. Material for the survey was purposefully selected. Commercial farms were used

in the survey; those farms use the latest technologies and means in production, and they achieve high yields. Data came from questionnaire surveys based on which it was estimated what kind of technological and infrastructural changes the surveyed farms had to introduce in order to ensure compliance with the introduced quality system management, and to what degree the certificate is useful for selling products. The questions concerned the area of indispensable changes in production and infrastructure. The field of research was divided into ranges according to the GLOBAL G.A.P. checklist and comprised: managing the production site; record keeping; workers' health, safety and welfare; waste and pollution management; environmental protection; protecting food against intentional wrongful acts; traceability and segregation. Questions about the share of sales of certified products and about the sales of certified products to foreign markets constituted another group. In the case of fruit farms, 50 produced apples and 20 produced soft fruits. The surveyed vegetable farms produced carrot, cabbage, cucumber and onion. All the surveyed farms had implemented a quality management system not earlier than five years prior to the survey. The average cultivation area of the surveyed fruit farms was 16.72 ha, whereas of the vegetable farms – 27.52 ha. In the case of the fruit farms, generally all crops were subjected to certification, whereas on vegetable farms only part of the crops were subjected to certification. In the case of vegetable farms, half of them were farms with an area above 20 ha. Farms with an area between 10 and 15 ha (Figure 1) were the largest group among the fruit farms.

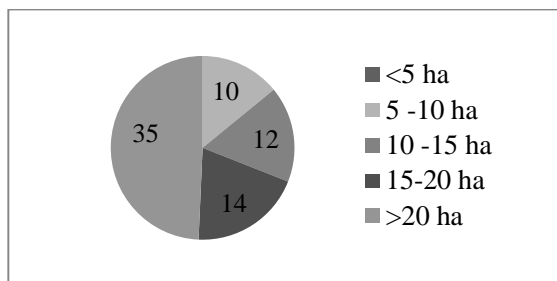


Figure 1 Number of vegetable farms in particular groups of cultivated area

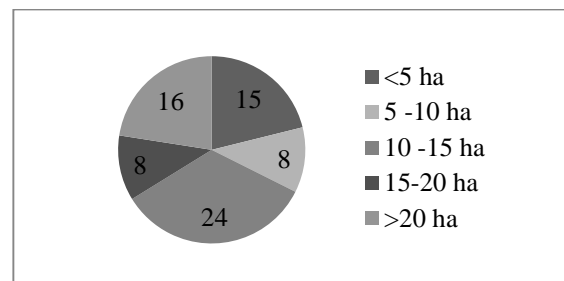


Figure 2 Number of fruit farms in particular groups of cultivated area

Results and discussion

Implementation of quality systems in primary production entails the necessity of incurring high costs, consisting of charges for certification, consultancy, infrastructural changes as well as changes in production technology, which are frequently connected with increasing cost intensity (Gródek-Szostak, Szelağ-Sikora, Sikora, & Korenko, 2017). These factors limit, and sometimes prevent implementation of quality management systems, particularly in countries

where small farms (with a small production scale) are dominant. Kibet, Obare, & Lagat (2018) in the case of farmers producing beans in Kenya, as well as Marschke & Wilkings (2014) in the case of fish producers in Vietnam, also point to that problem. Partzsch & Kemper (2019) draw attention to similar problems in the case of certification of cotton production. Requirements concerning a certificate apply only to commercial network markets. In general, a traditional market does not demand quality certificates, that is why cheaper products on the traditional market can compete with certified products. Producers make a decision regarding certification based on risk analysis. Costs incurred for certification must be transferred onto consumers. That is why it is strategic to build their awareness about the need to increase product safety and to reduce the negative impact of agriculture on the environment (Kuboń, Sporysz, & Kocira, 2017). Carlsson, Khann Nam, Linde-Rahr, & Martinson (2007) draw attention to non-economic aspects of rationalization of production in agriculture. For some producers certification of production for compliance with production systems that take into account environmental and social aspects is of great importance in building the image. Entities implementing the principles of pro-environmental production systems gain a higher social status, and thus have a better position in the market through increased consumer trust (Ibanez & Blackman, 2016). One of the main problems with certification of quality management systems is their inadequacy to the producers' market that is based on small farms (Azhar, Prideaux, & Razi, 2019). High fragmentation of farms is a characteristic feature of vegetable and fruit production in Poland. Functioning of small family farms that produce vegetables is strongly rooted in the tradition of Polish agriculture, that is why development of such production is of great importance – not only economic but also social. Development and implementation of an effective quality management system is difficult and expensive, and thus unattainable for many small farms, as has been pointed out by many researchers of this problem (Walters et al., 2016; Tran & Daisaku, 2018). Azhar, Prideaux, & Razi (2019) draw attention to the high risk of implementing the GLOBAL G.A.P. system, associated with failure to meet quality standards of products despite complying with the principles of this standard. However, Tran & Disaku (2018) stress that despite considerable costs of implementing and administering the quality management systems, producers gain higher financial benefits and a stronger position in the market.

Table 1 Number of farms on which changes as a result of implementation of GLOBAL G.A.P. were necessary (%) (own elaboration)

	Vegetable farms	Fruit farms
Managing the production site		
Creation of a decision-making system based on risk analysis	100.0	100.0
Creation of a production data archiving system	71.4	53.5
Workers' health, safety and welfare		
Implementation of formal hygiene procedures	100.0	83.1
Introduction of a system of employee training	75.8	62.0
Implementation of the use of personal protection means	44.0	32.4
Extension of the social part (workers' rest areas, accommodation conditions)	89.0	76.1
Changes in waste management on the farm	29.7	15.5
Changes in management of non-production areas on the farm	9.9	5.6
Changes in water acquisition and use	29.7	45.1
Changes in the hygiene of harvest and size reduction processing	80.2	64.8
Changes in quality control of water used for production	100.0	70.4
Changes in cleaning and storage of product packaging	94.5	70.4
Changes in product protection against wrongful acts and against animals	80.2	53.5
Using fertilizers and plant protection products		
Modernization of warehouses for fertilizers and plant protection products	80.2	62.0
Changes in the technique of using plant protection products and devices for their application	9.9	0.0
Changes in soil management	39.6	9.9
Actions related to product traceability and segregation	90.1	74.6

Implementation of the GLOBAL G.A.P. system requires a number of actions connected with organizational, infrastructural and technological aspects at the farm level. In Poland, the importance of quality systems at the level of primary production has been increasing in recent years due to the necessity of searching for new markets. On all the surveyed farms (both vegetable and fruit farms), implementation of the GLOBAL G.A.P. standard was associated with development of a system of decision-making based on risk analysis. Prior to GLOBAL G.A.P. standard implementation, approximately 70% vegetable farms and 50% fruit farms had not had a system for archiving production-related data (Table 1). The fundamental principle of effective quality management systems is to take into account the risk analysis results when making decisions as well as to archive actions and effects of these actions so as to be more efficient in perfecting the system (Chemweno, Pintelon, Muchiri, & Van Horenbeek, 2018). Development of risk analysis for individual stages of production entailed the need to purchase the service, which involved additional costs. Effective use of risk analysis in decision-making processes is one identified problem. Kibet, Obare, & Lagat (2018) as well as Tran & Daisaku (2018) draw attention to this problem among farmers who cultivate on small farms in different parts of the world. On

all the vegetable farms and on 80% fruit farms, implementation of the GLOBAL G.A.P. standard required introduction of formal hygiene procedures. Before certification started, a series of trainings was conducted on about 25% vegetable farms and 33% fruit farms (Table 1). In the case of using personal protection measures (protective gloves, gas masks), less than half of the surveyed farms required changes. Almost all the farms required extending the social zone where workers could rest, as well as providing workers with accommodation. Social issues are one of the biggest problems with certification on small farms. It is very frequently the case that low earnings associated with the scale of production make it impossible to create social infrastructure compliant with the requirements of the standard (Ibanez & Blackman, 2016; Glasbergen, 2018). Adapting to the GLOBAL G.A.P. standard involved changing waste management on 30% vegetable farms and 15% fruit farms (Table 1). Waste management in modern agriculture should involve waste disposal and re-introducing it to the agroecosystem (Sikora et al., 2017; Niemiec, Mudryk, Sikora, Szelağ-Sikora, & Komorowska, 2018). A comparable number of farms introduced changes in management of non-production areas in the context of environmental protection. Issues associated with waste management are regulated by Polish legislation. That is why the implementation of this standard did not require any additional actions from the producers. The GLOBAL G.A.P. standard places great importance on acquisition and rational use of water resources. Moreover, water is one of the most important risk factors for food safety (Allende et al., 2018). Agriculture is regarded as an activity that has the most negative effect on water resources, both in the quantitative and qualitative context. Most of the surveyed farms have irrigation, therefore this aspect is very important. Changes in the issue of managing water resources concerned 30% vegetable farms and 45 fruit farms. These changes focused mainly on regulating the issues connected with legal permit for drawing water or with introducing optimization of water use for irrigation. On all the vegetable farms and on 80% fruit farms it was necessary to introduce a system of quality control of water for irrigation, for the use of plant protection products, and for postharvest actions (Table 1). On 80% vegetable farms and 64% fruit farms, implementation of the GLOBAL G.A.P. standard required making changes in the harvest hygiene. The biggest problems were connected with providing toilets and ensuring the possibility to wash hands at the cultivation site, as well as with maintaining the proper hygiene condition of product packaging and of vehicles used for transportation. Almost on all the farms it was necessary to regulate the issues connected with storing empty product packaging, which, according to the principles of the standard, should not be exposed to contact with animals. Within the scope of techniques of using fertilizers and plant protection products, introduction of the standard did not require any changes. However, on the most farms it was necessary to modernize

the warehouses for plant protection products (Table 1). In most cases, modernization of the warehouses involved closing the warehouse, installing lighting and technological barriers that would prevent spillage of a plant protection product in case of damaged packaging. In several cases producers had to exchange those sprayers that did not meet legal standards. In Poland, principles of integrated plant protection have been in force since 2014. That is why when it came to the use of plant protection products, only small changes in the studied group of farms were necessary. The need for changes with respect to soil management concerned 40% vegetable farms and 10% fruit farms. The introduced changes concerned the use of crop rotation and techniques that reduce soil erosion. Almost all the farms required introduction of an effective system of product traceability and segregation, which is the base for all quality systems in production and distribution of agri-food products (Hu, Zhang, Mog, & Neculita, 2013; Badia-Melis, Mishra, & Ruiz-García, 2015). Functioning in the traditional fruit and vegetables market does not require effective traceability. Creating an effective system was a major problem associated with adapting the farms in this respect to the requirement of the GLOBAL G.A.P. standard. Changes in producers' mentality with regard to the issue of a system approach to creating records and labelling products in relation to the harvest date or the date of post-harvest processing were the most important ones. Despite the fact that creating a traceability system does not involve incurring costs for technical infrastructure, actions in this area turned out to be the most difficult to implement.

Table 2 Changes in directions of product sales as a result of implementation of the GLOBAL G.A.P. standard on the surveyed farms (%) (own elaboration)

Parameter	Vegetable farms		Fruit farms	
	Before certification	After certification	Before certification	After certification
Sales of products to commercial networks	9.9	45.1	28.2	71.8
Sales of products to the international market	7.7	30.1	16.9	53.5

The results of the conducted research indicate that implementation of the GLOBAL G.A.P. standard in farms producing vegetables increased product sales in the commercial networks market by 35%, whereas in the case of fruit producers the increase amounted to approximately 44%. Prior to the commencement of the certification, almost three times fewer farms introduced products in the market through commercial networks (Table 2). Approximately 23% vegetable farms started product sales in foreign markets thanks to certification in primary production. In the case of fruit farms, that value amounted to 36%. Prior to

certification commencement, approximately 8% vegetable farms and 17% fruit farms had been selling their products to foreign markets. In the case of farms that had been selling their products to commercial networks and to foreign markets before the certification process started, implementation of the GLOBAL G.A.P. standard was dictated by the loss of the possibility of selling their products under the existing rules.

Conclusions

The conducted research indicates that implementation of quality management systems in primary production on Polish farms required significant changes, both in the area of infrastructure as well as producers' mentality. Based on the results of the conducted research it was established that implementation of the GLOBAL G.A.P. system on the surveyed farms improved product safety. Improvement of safety applied particularly to quality control of water used for irrigation, pesticide use, as well as of washing products and creation of a formal traceability system. Extension and modernization of the social infrastructure allowed creating better conditions for employees, and protection of the warehouses for plant protection products and rationalization of water consumption allows for a considerable reduction in the impact of production processes on the environment. From the point of view of the technology used so far as well as costs incurred for the adaptation of farms to the requirements of the standard, issues associated with providing social infrastructure, adapting the drawing of water to be in compliance with the law, as well as changes in the hygiene of harvest are the most severe. This is because they are enforced by law to a lesser extent and they have not been implemented earlier. In the case of small farms, adaptation of production conditions to the requirements of the standard is problematic from the economic point of view. Nevertheless, the results of the conducted research unambiguously indicate that implementation of the GLOBAL G.A.P. standard allows to increase the possibility of selling your products to commercial networks, as well as strengthening their position in the market of products intended for export. However, most of the surveyed producers stated that higher prices of the certified products did not compensate the costs connected with certification and adaptation of the farm to the requirements of the standard.

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IMPLEMENTATION OF INTEGRATED MARKETING COMMUNICATIONS IN THE HOSPITALITY INDUSTRY: A LITERATURE REVIEW

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Abstract. *The hospitality industry is one of the most dynamic and competitive sectors, it has become more important to communicate marketing messages that are clear, unified and integral throughout all the communication channels to the target audiences. The paper aims to review the previously conducted research efforts on implementation of the concept of integrated marketing communications (IMC) in the hospitality industry. The aim of this research study is to collect and analyse the main concepts and conclusions of theoretical and practical research in the hospitality IMC implementation in the recent years. The methodology for paper selection was the following: 1) databases - Scopus, ScienceDirect, EBSCOHost, Emerald Insight - were examined; 2) main search criterion was “IMC hospitality implementation”, 3). additional research criteria were time of publication and peer-reviewed papers. Qualitative data analysis methods were used to assess the selected papers, while the review itself can be classified as narrative. Eight papers were selected for the analysis, showing an overview of the latest trends in research on IMC implementation in the hospitality industry. The findings indicated correlation between IMC strategy implementation and the impact on target audiences. This literature review can be used as the theoretical background for future researches.*

Keywords: *hospitality, literature review, integrated marketing communications, tourism.*

Introduction

Marketing and brand communications are the main persuasive elements of any organization, these tools can be used to connect with wider markets by transmitting clear communication messages to target audiences. In recent years, namely over the recent past decade, the world of marketing and the face of marketing has changed drastically with the ever-continuing rise of ICT, and especially social media advancements and integration into consumers' everyday lives. In today's dynamic business environments, standards for effective and sustainable communication among stakeholders are high. The modern-day customers are building strong relationships with certain brands or organizations only when the relation is founded on trust, which in its turn require a sustainable and consistent marketing communication (Kitchen & Burgmann, 2010).

Major textbooks with emphasis on marketing communications have been around since as early as 1981, with Michael Ray's Advertising & Communication

Management being the first one (Ray, 1981). Although marketing communications have been used for several years as an umbrella term to refer to the various communications functions used by marketing, the strategic integration of these functional areas is what makes IMC a new approach to reaching consumers and other stakeholders. The IMC concept is used as the basis for executing each communications function, such as advertising, public relations, sales promotion, etc., throughout a variety of communication channels (Fitzgerald & Arnott, 2000).

In order to be able to make full use of the opportunities and benefits offered by a successful IMC strategy implementation and to develop scientific research in this area, *it is important* for practitioners and researchers to regularly obtain extensive and reliable information on the results and conclusions of studies so far obtained. The small number of published research studies on IMC implementation in the hospitality industry is the main limitation to this review.

The aim of the paper is to review the previously conducted research efforts on implementation of the concept of IMC in the hospitality industry. To reach the aim, the following tasks were formed: to define the concept of IMC; to review the selected papers on IMC implementation and its effectiveness according to the chosen methodology. The review aims to gather and analyse information on the main concepts and conclusions of empirical and theoretical studies on IMC strategies in recent years, thereby encouraging further researches in this field, both theoretical and empirical.

Methodology and approach

For this narrative literature review, the author has selected papers addressing implementation of IMC in the hospitality industry in top-level research databases, including Scopus (www.scopus.com), ScienceDirect (www.sciencedirect.com), EBSCOHost (<http://search.ebscohost.com>) and Emerald (www.emeraldinsight.com); data collection took time from November 2018 to January 2019. The main search criterion was “IMC hospitality implementation”, with additional variations - “implementation hospitality IMC”, “hospitality integrated marketing communications”, “tourism IMC implementation”. The publication year range was from 2000 to 2018, as very few peer-reviewed papers were published in regard to IMC in hospitality; thus, the publication year range had to be wider.

The selective process of the papers contained three main criteria – 1. only full-length papers in the English language were considered, 2. the author has detected the relevance to the research of the paper by reading the title and abstract of each considered paper – only the papers addressing implementation issues of IMC in the hospitality and tourism sector were selected; 3. final selection criteria:

time of publication and peer-reviewed papers. The selected papers were empirical, applying the qualitative, quantitative and mixed research methods.

Qualitative data analysis methods were used for the data collection and content assessment processes, in order to conduct qualitative interpretation of the available researches and to summarize what has been written on IMC implementation in the hospitality industry. The retrieved researches were then chronologically and thematically analysed. First determining the aspects of the data planned to be analysed, deciding on specific characteristics of each research to be reviewed and documented in this study, in order to identify relevant data and later use this data to address this particular study's questions.

The literature review itself can be classified as narrative, as this way of conducting the review is effective in gathering together a number of researches in the subject area, synthesising and presenting the findings; providing a background for understanding the previous knowledge and significance of this literature review.

A theoretical framework consists of concepts and definitions in reference to IMC that are crucial for this particular research study. The evaluation of theoretical assumptions allowed performing a qualitative content analysis more critically.

Development of IMC definitions and concepts

Theoretical framework, development of definitions

The original idea and foundations of IMC were pioneered by Dr. Donald Schultz., a professor at Northwestern University, who introduced consumer "touch points" and the complex interrelationship of opportunities used to influence the perception of brands. The list was long and included almost everything imaginable. Essentially, every place, person, and media had the potential to shape and build consumer expectations (Kitchen & Burgmann, 2010). Many different definitions of IMC have evolved over the years. One of the original ones and most used by academics, practitioners and other stakeholders would be "*a strategic business process used to plan, develop, execute, and evaluate a series of coordinated, measurable, persuasive brand communication programmes over a period of time with consumers, customers, prospects, as well as other targeted and relevant external or internal audiences.*" (Schultz & Schultz, 1998). But during the past 30 years, many other definitions and perceptions have been coined by a large number of practitioners. Many practitioners heralded IMC as a useful up-and-coming marketing tool and some have opposed the idea of IMC as a misleading concept (Cornelissen & Lock, 2000; Schultz & Kitchen, 2000). The most important characteristic of this definition is that regards an approach to IMC as a "*business process*", encouraging

the creation of a plan through which all activities can be structured, implemented and evaluated. Pickton and Broderick defined IMC as “*a process which involves the management and organization of all ‘agents’ in the analysis, planning, implementation and control of all marketing communications contacts, media, messages and promotional tools focused at selected target audiences in such way as to derive the greatest economy, efficiency, effectiveness, enhancement and coherence of marketing communications effort in achieving predetermined product and corporate marketing communications objectives*” (Pickton & Broderick, 2001). On the other hand, Fill reaffirmed the idea of a coherent communication and strategic development when he defined IMC as “*a management process that strengthen brand proposals*” (Fill, 2002), creating an idea that IMC does not relate to communication exclusively, but also to business and brand management altogether.

As integrated marketing communications deal with merging or combining communication tools to form a combined message, Hutton argues that “*marketing, advertising, and public relations practitioners had been adept at coordinating their efforts long before the term IMC came into vogue*” (Hutton, 1996b). On the other hand, some researches accept the idea and concept of IMC but argue that it is a brand-new concept, appealing to the fact that it is only becoming more prominent due to the emerging digitalized environment and rapidly changing variety of marketing methods (Schultz & Kitchen, 2000).

Though the first time the term and definition were coined by the American Association of Advertising Agencies in 1989, as “*A concept of marketing communications planning that recognizes the added value of a comprehensive plan that evaluated the strategic role of a variety of communications disciplines, e.g. general advertising, direct response, sales promotion and public relations- and combines these disciplines to provide clarity, consistency and maximum communications impact*”. That was the earliest definition, and it has more tactical and centralized approach to that concept (Kerr, Schultz, Patti, & Ilchul, 2008).

According to Duncan, IMC is “*the process of strategically controlling or influencing all messages and encouraging purposeful dialogue to create and nourish profitable relationships with customers and other stakeholders*” (Duncan & Caywood, 1996). The definition later was explained and expanded by Duncan and Mulhern, who addressed it as “*an ongoing, interactive, cross-functional process of brand communication planning, execution, and evaluation that integrates all parties in the exchange process in order to maximize mutual satisfaction of each other’s wants and needs*” (Duncan & Mulhern, 2004).

Kotler also proposed a definition that follows the inside-out approach, defining IMC as: “*the concept under which a company carefully integrates and coordinates its many communications channels to deliver a clear, consistent, and compelling message about the organization and its products*” (Kotler, 2000). In

addition, Percy, Rossiter and Elliot addressed the IMC concept with their definition, the “*IMC concept is the planning and execution of all types of marketing communication needed for a brand, service, or company to satisfy a common set of communication objectives*” (Percy, Rossiter, & Elliot, 2001). Some authors have suggested that IMC should be considered as a philosophy, whose implementation should be “*situationally specific*”; in that way, practitioners have the flexibility needed to implement IMC relative to market fluctuations. Gould considered IMC as a theoretical concept that could be seen as “*a set of contingently framed practices and discourses where localized, particular practitioner interpretations are just as important as general theoretic ones*” (Gould, 2004). In the recent decade, practitioners and academics are favouring other theories, and one of them is the Integrated Communication (IC) concept, which is defined as “*the notion and the practice of aligning symbols, messages, procedures and behaviours in order for an organization to communicate with clarity, consistency and continuity within and across formal organizational boundaries*” (Christensen, Morsing, & Cheney, 2008).

The above listed definitions testify that over the last 30 years IMC has been defined and analysed from different perspectives: as a “*management philosophy*” (Stewart, 1996), as an “*educational movement*” (Hutton, 1996a) or even as a “*unified management practice*” (Moriarty, 1993). When applying this IMC approach, it is not only considered to be marketing communication with the end-customers, but also as a business and brand management process (Fill, 2002). The suggested approach does not only apply all promotional and marketing mix elements, using the coherent and unified message that was conveyed after thorough investigation of a target market; it also implies a more structured approach of creating segmented clientele databases and restructuring the whole organization to serve the needs of integral across-the-board customer orientation (Duncan & Mulhern, 2004). Han, Kim and Schultz suggest that IMC as a field of study is still a young concept and it is still at a relatively early growth stage and need much more research, analysis and time to define and finesse the cornerstones (Han, Kim, & Schultz, 2004).

Evaluation of the researches on IMC implementation in the hospitality industry

Tourism and hospitality markets are highly fragmented, consumers find themselves with fragmented marketing communications images in a confusing marketing environment. That is the reason why hospitality industry practitioners should coordinate their efforts in creating unified communication strategy in order to deliver consistent messages through their marketing activities (Hudson, 2008). Thus, academics and practitioners in the field of marketing and branding have

supported the notion that IMC plays an important role in building and maintaining stakeholder relationships and in leveraging these relationships to create customer-based brand equity (Seric, Gil-Saura, & Ruiz-Molina, 2014).

In their 2003 study, Kulluvaara and Tornberg performed a case study of a unique concept Icehotel, located in Jukkasjärvi, Sweden. This research had a fundamental limitation of being conducted by using only one hotel as a case study. The authors admitted that their research was time and resource limited and was conducted from the hospitality industry perspective, not the customer perspective (Kulluvaara & Tornberg, 2003). Their finding confirmed that IMC was implemented by Icehotel, but the management was not following any documented IMC concepts or procedures, but rather sporadically performing marketing activities and the strategy was rather informal, however, the marketing message was rather uniform and consistent. No clear measurable objectives and tools to evaluate them were set, however, overall objectives did exist.

Skinner's 2005 research was on IMC, and how it could be used to create unified marketing messages to promote Wales as a destination brand. Skinner alludes to the fact that Wales is a rather small Celtic nation in need of rebranding in an increasingly competitive global tourism marketplace, and suggests that the synergy of marketing tools and communication coupled with problem identification and solving involved can help the region to become more competitive (Skinner, 2005). An analysis of empirical data and evidence indicated the violations of "one voice" principle of IMC, due to inconsistency in marketing communications messages, namely their content and strengths. Following a discussion of IMC principles and strategies, the same author has concluded that the true integrated marketing communication can possibly be achieved and still remains, given the fact the all procedures are conducted in accordance with IMC principles within the key public bodies of the region and in cross-communication among them.

Elliott and Boshoff discussed the importance of IMC implementation within the hospitality small business enterprises (SBE) of South Africa. As the authors have suggested, SBEs are a catalyst of creating new jobs and are actively contributing to the economic growth, and the tourism and hospitality sector is the one where proliferation of small enterprises is observed (Elliott & Boshoff, 2008). The authors have suggested that access to the market and sending the unified "one voice" message to that market is the key to success for small businesses, namely reaching their highest business potential, improving effectiveness, increasing revenue, optimizing their marketing communication strategies – all that by implementing and utilising a well thought out IMC strategy. Industry stakeholders should strive to strengthen their ICT capacities through developing e-marketing and examining the feasibility of regional mechanisms to promote information communication and capacity building to improve the efficiency and

competitiveness of SBEs (Elliot & Boshoff, 2008). An exploratory study was conducted with 316 managers in small tourism enterprises interviewed in South Africa in order to analyse the impact of different business orientations on IMC. The findings indicated the positive effect of defining a marketing orientation, strengthening entrepreneurial orientation and taking pro-active competitor orientation in regard to IMC processes.

Wang, Wu and Yuan focused their research on a heritage tourism site as a brand destination, namely the popular township of Lukang, Taiwan. The objective of the research was to assess the importance of developing and implementing an IMC strategy for this particular destination (Wang, Wu, & Yuan, 2009). The methodology for the empirical research consisted of a constructed questionnaire and a total of 197 valid questionnaires were collected; all the empirical data were collected at the Lukang destination, Taiwan. The authors suggested evaluation and measurement of IMC processes from the target audience perspective. The correlation between the elements and different social and demographic characteristics were also explored. It was established that there was difference in perception of IMC among different age groups. No differences in the IMC factors were indicated in regard to genders or educational levels. The findings were suggested to help tourism public bodies and heritage site managers to better understand the principles of IMC and to outline marketing strategies, management plans to achieve greater success in reaching target audiences.

Dinnie, Melewar, Seidenfuss and Musa conducted their research with the aim of determining the extent to which the nation branding activities of export promotion organisations (EPOs), investment agencies (IAs), national tourism organisations (NTOs) and embassies follow the principle of coordination that characterises an integrated marketing communications approach (Dinnie, Melewar, Seidenfuss, & Musa, 2010). Dimensions of interorganisational coordination in a nation branding context were also defined. The authors have researched the principle of coordination of activities, which is commonly observed in the IMC approach, with limitations highlighted by the authors being the relatively small dataset as well as the restricted geographic scope of the research. From the authors' findings, there are seven key dimensions of the principle of interorganisational coordination in a nation branding context. The authors suggest that these findings should address the need of creating enhanced coordination between all key stakeholders engaged in nation branding and promotion, but not limited only to public bodies and governmental organization, and also including private sector organizations and their respective partners.

In the 2011 research initiated by Seric and Gil-Saura, the main objective was to study complexity of IMC and ICT concepts in the tourism sector in detail, specifically in hotels (Seric & Gil-Saura, 2011). The authors conducted an empirical study in 17 hotels in Dalmatia region, namely the high-class and luxury

class hotels, as this category of hotels was more inclined to adopt ICT and IMC principles (Daghfous & Barkhi, 2009). The findings of the data analysis suggested that a higher degree of ICT implementation was observed in both categories of researched properties, however the context and the elements of ICT might vary depending on the category of the property; moreover, with the hotel category increase, the same increase was observed in ICT implementation. In regard to IMC, which is the main focus of the present paper, the authors have concluded that the efficiency of IMC implementation decreased in line with the hotel category rating increase; especially in regard to the first two IMC dimensions – unified communications for consistent messages and images, and differentiated communications to multiple customer groups – and partially regarding the third one – database-centred communications for tangible results (Seric & Gil-Saura, 2011). As IMC implementation limitations, the authors have highlighted the socio-economic characteristics and educational traditions of the nation have been identified, as a large number of property managers are still affectionate to former traditional practices and not fully embracing the ICT and IMC possibilities in the digital age.

IMC implementation in the tourism and hospitality sectors is mainly focused on IMC from managers' perspectives (Seric & Gil-Saura, 2012). The double managers-guests perspective has been suggested for this research in order to identify the gap between the two stakeholder's groups, keeping the geographical region the same, Dalmatia region. The findings confirmed a high implementation rate of IMC by the relevant hotels, but also found differences between the perceptions of marketing communications messages by guests and by hotel managers. According to the research finding, the marketers believed in the greater IMC impact and implementation than it was actually perceived by the hotel guests (Seric & Gil-Saura, 2012). The gap in perception between the two groups could be explained by the nature of the sender-receiver subjectivity of the message, creative processes when creating the message and its intangible characteristics that are easy interpretable in many different subjective ways based on individual characteristics. As it has been established in previous research attempts, customers frequently tend to redefine brand messages and symbols, and modify or even change their meanings completely in ways not imagined by their creators (Christensen et al., 2008).

In the 2015 research, the following objectives were outlined: to find out if there are statistically significant differences in IMC implementation between Italian and Croatian hotels from the manager's point of view; if there are statistically significant differences in IMC implementation between Italian and Croatian hotels from the guest's point of view; if the impact of IMC on customer satisfaction is positive and significant but moderated by the country of the hotel location (Seric, Gil-Saura, & Ozretic Dosen, 2015). From the manager's

perspective, the results reveal a high degree of IMC implementation in high-quality hotels located in both countries. In Italian hotels, some factual differences were observed, namely consistency between communication tools and channels, decisions on creation of more than two target customer groups, decisions on creation of single or multiple brand images, compiling of consumer information in the course of marketing communications activities. Croatian hotels showed better results in terms of consistency among linguistic message components, brand image and long-term consistency, as well as when following, responses of consumers after marketing communications activities (Seric et al., 2015). In regard to the second objective, the findings showed Croatian hotels guests perceived all the IMC aspects better than those of Italian hotels did. As for the third objective, the finding indicated that the geographical location (country) had a significant effect on the relationship between IMC and customer satisfaction; in particular, path coefficients from IMC to satisfaction were stronger among the Croatian hotel guests than those of Italy. In addition, the authors have concluded that implementation of IMC in hotels will positively influence the guest satisfaction rate. Practical implications addressed the need to adopt a more holistic approach to marketing communications and to evaluate on a regular basis consumers' opinion in order to measure the campaign success.

The analysis reveals that not enough hospitality and tourism IMC implementation researches are being carried out. The author has reviewed the papers on IMC in hospitality published in the last 15 years and has come to a conclusion that only a fraction of them is relevant to the hospitality industry and tourism, and even fewer are addressing IMC implementation and evaluation issues. The eight papers were selected according to the chosen methodology and approach. The IMC research within the hospitality industry is being majorly neglected, even though the need for integration has proven to be as necessary there as in other industries (Hudson, 2008). It also should be noted that the research activity in regard to IMC in the hospitality sector had increased in the later years. Moreover, some hospitality operations have not implemented IMC due to lack of confidence in and resources for IMC concept integration (Seric et al., 2015). Limitations highlighted by the author are the relatively small dataset and sample, as well as the restricted geographical scope of the empirical research, which may question the overall validity of the results and findings. This research study provided a comprehensive overview of each research in regard to IMC implementation in tourism, but not an exhaustive one.

Conclusions

The IMC concept is not just a means of sending your marketing message, but is a meaningful and comprehensive strategy of communicating with the target

audiences where all processes are carefully linked together. Work is ongoing on evaluating IMC implementation in the hospitality industry and developing new effective tools for its implementation, adapting the latest technologies and theoretical knowledge base to new approaches. The current findings are indicating a strong correlation between a successful IMC strategy implementation and a positive brand perception by the target audiences. At the same time, research efforts should be continued to evaluate a positive impact on hospitality brands, as empirical evidence data are very limited. Studies are needed to help identify main IMC implementation barriers and other causes that are preventing hospitality business to implement the integrated marketing concept. Only with more evidence-based practices and studies, IMC can make full use of the possibilities in the hospitality industry. This review is not meant to be interpreted as exhaustive, the nature of the analysis is interpretive and subjective, other scholars make take a different approach and organize and interpret the literature in alternate ways.

Summary

The aim of this literature review was to analyse the previously conducted research efforts on implementation of the concept of IMC in the hospitality industry, to investigate findings and conclusions of empirical and theoretical research in recent years. Only 8 papers were selected according to the chosen methodology and approach. The IMC research within the hospitality industry is being majorly neglected, even though the need for integration has proven to be as necessary there as in other industries. The nature of this review can be classified as narrative; the findings demonstrate a strong correlation between successful IMC implementation by the hospitality and tourism sector's businesses and building customer attention and awareness of a particular brand. Implementation of IMC in the hospitality and tourism sector needs to be monitored and continued to be researched, with future researches focusing on both perspectives - organizational and customer. Several interesting avenues for future research on IMC implementation in the hospitality industry include investigations into how customers perceive and respond to certain marketing stimuli and the measuring process of that response, how different communication strategies affect customer behaviour and the roles and effects of IMC within that response. The findings of this review can be used to provide researchers, hospitality and tourism sector practitioners and other stakeholders with insights into IMC implementation. This review is not meant to be interpreted as exhaustive, the nature of the analysis is interpretive and subjective, other scholars make take a different approach and organize and interpret the literature in alternate ways.

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SOCIO-ECONOMIC CONDITIONS FOR THE APPLICATION OF EVENT TECHNOLOGIES IN PUBLIC POLICY AND MANAGEMENT

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Abstract. *The specificity of public administration is the implementation of social objectives, as it requires the use of effective means of administrative influence, adequate to the needs of the information society. In such circumstances, the concept of event management can be considered as an effective form of interaction between public authorities and the population. The aim of the study is to find ways to increase the effectiveness of public administration bodies through the use of event-marketing and event management technologies.*

The paper analyses the modern state of the theory and practice of event management in the activities of bodies of public administration. The emphasis is placed on finding of socio-economic determinants that contribute to the need to implement effective models of event-management in activities of government bodies and local self-government. It was determined that the use of event management logically reflects the content of the activities of public authorities in the information society. There is the combination of communicative functions and services for the modern system of public administration.

The main prerequisites for the implementation of conceptions of events in the activities of the authorities are the population, the landmark authorities for consumer services as a full participant, relations in the sphere of power, an increase in demand for the combination of entertainment and social elements, the need to increase the population to overcome the political and social absenteeism.

Keywords: *event, event management, marketing methods, public communications, political financing, public management, public policy.*

Introduction

Modern public administration, being a phenomenon generated by many political and economic interests, is a complex system of links between subjects and objects of managerial influence. The development of new concepts in public administration today is rapidly evolving and affecting various aspects of the human society life. Increasingly, public-management innovations are reflected in the social environment of consumers of management services, which, as an integral part of society, form their perception of the world and their own socio-cultural views under the influence of communicative interaction. The society of consumption, the economy of services could not but change the essence and content of various forms of national and local government. The transition to a new paradigm of the relationship in the system of "subject-object" management has led to a diversification of means of ensuring such interaction. The view of a person as a consumer of political, public, and administrative services substantially changes the conceptual approaches to the implementation of certain functions in public administration, in particular communicative ones. This necessitates the need to update the methods of implementing the functions of political and public administration at all levels, especially in the area of communicating power with citizens.

Communication of public authorities and politics takes place within the framework of events, mass events aimed at solving problems of a public nature. Such events largely determine the content of the activities of public authorities in modern conditions; require appropriate training, specialist knowledge and professional management skills.

The aim of the study is to find ways to increase the effectiveness of public administration bodies through the use of event-marketing and event management technologies, study of socio-economic factors, which enable public authorities to actively use in their activities such an element and tool of marketing management as management of public events.

Methods of object research are traditional for public administration (general science - analysis, synthesis, generalization, special - sociological and managerial analysis). They are aimed at ascertaining the nature and specificity of event management in the field of public administration and public policy. Methods of analysis used in this paper take into account the specifics of the subject of research (sociological and marketing research, political analysis, elements of system analysis, content analysis, and analysis of financial tools for managing events in public authorities).

Research results. Literature review

Market approaches to public administration are an instrument of new public management. This is evidenced by the European experience. We fully agree with the opinion of researchers that determine the success of public administration reform with the introduction of market mechanisms in the public sphere. So P. Christiansen thinks that the New Public Management includes the idea of incorporating market mechanisms in public sector governance. In the Danish case, market reforms have scarcely been used; private sector supplies of public services have not increased during the last decade. The lack of success of market reform in Denmark is explained by the strong institutions of traditional public sector governance operating at the micro-level (Christiansen, 1998).

The publications appearing in Ukraine are mainly devoted to the search for effective models of public administration, and with such unconditional relevance and expressed tendencies of increasing scientific interest in this area of research, unfortunately, they do not cover the scope of the methodology of modern public administration. Therefore, the ideas of W. Wilson, who viewed state governance through the prism of corporate management and thus launched a qualitatively new concept of social governance - public administration, are gaining new significance and new ways of managing public activity in a number of ways (Воронкова, 2012).

The attitude towards civil society and the individual as a consumer of management services, the need for a positive image of the state and its bodies is increasingly leading to the use of various aspects of marketing management in the public administration. As you know, one of the manifestations of modern marketing communications is PR and its component - event management. Historically, most of the new types of post-industrial society were born and received significant development first in the United States, later in Western Europe and in Ukraine. In connection with the transition of Ukraine to market relations in its economic system, new types of activities are actively developing, one of which is the organization of events (event-management). Increasingly, marketing events are becoming a key element in promoting company products. The organization of marketing communication activities greatly affects society as a whole. In this case, the management of the event is positioned as a way of emotional impact on the client and the direct presentation of ideas, products, and services to the consumer. It is noteworthy that in the practice of public authorities, elements of event management existed for a long time, but their scientifically substantiated use only recently led to the need for a more detailed theoretical analysis of the causes and possibilities of using marketing communications to achieve the goals of public administration.

Methodology

Investigating such a complex subject as marketing communications of public authorities, with command and event management requires specific methods of analysis. As the management of events in the public sector accumulates various elements of public administration, marketing management, socio-cultural management, political management, and research methods should also be adequate. They cover the traditional methods of analysis, synthesis, generalization, and specific methods for public administration, such as sociological and marketing research, political analysis, and systems analysis tools to understand the essence of the phenomenon under study. In addition, taking into account the realities of the public sphere, content analysis, analysis of financial tools for managing events in public authorities oracles, etc., are the necessary tools for the study. In the context of the tasks of this article, the general research methods necessary to ascertain the nature and specificity of event management in the field of public administration and public policy are used.

Investigation of the conditions of event technologies application in public policy and management

Modern public administration implements social tasks by specific methods that are adequate to the needs of the information society. Since the main tool of governance in such a society is communication, there is a need to update the methods of communication between government and society. One of the common forms of such communication is the events that are used in the context of public administration and public politics. Such events should be professionally trained (since they are elements of the socio-cultural sphere), funded (they are expendable projects, so it is about project financing of public events), meet the needs of public policy and management. This determines the relevance of the study of event management as a form of public authority. A public event is essentially an event of a social nature, an expression of technological functions of contemporary culture and uses marketing impact tools on citizens in order to motivate them to take appropriate action.

Modern trends in the development of this area of economic activity are embodied in the practice of public authorities. Conditions that determine the possibility of using the elements of event management in the activities of public administration bodies, can be represented in the following positions.

Firstly, it is the growing differentiation of the population, which is replaced by the consumption of mass products. Demystification is the distribution of the population into rather small groups that differ from each other in a variety of

characteristics. The results of de-massification are found everywhere and in everything. It is enough to see how many TV channels and radio stations appeared that suit consumer, cultural and even political tastes of different sections of the population. The times of «entertainment for all» gradually go away in the past, giving way to other species, specially tailored for each individual segment of society.

Secondly, today in the public sphere of governance the landmark is dominated by the consumer as a full member of the relationship, which is regulated not only by the rules of law, but also by the laws of supply and demand. The winner is the one who, first of all, takes into account the values and tastes of the consumer, and, based on them, builds his/ her marketing policy. In the context of public administration, this means that the paradigm of «good governance», which is actively implemented in modern practices of public administration of developed countries, is based on the understanding of man as the subject of power relations.

Thirdly, the development of social marketing is becoming widespread. The tradition of linking the name of a company, product or brand to socially significant phenomena has gained considerable popularity in the last decade and, according to experts, it will continue to gain momentum in the future. Appeared as a tool for short-term product promotion, social marketing evolved into a long-term market strategy that determines the positioning of the product. Using social marketing, companies get a rare opportunity to build long-lasting and lasting relationships with consumers.

The main advantage of this strategy is that the product is associated with a social phenomenon that is significant for the target group of customers and thus receives competitive advantages. Binding to the values and concerns of the target group strengthens consumer interdependence, brand and activities. This can seriously contribute to solving the problems of public administration. For the sphere of public authority, there are also pressing social problems that cannot be solved purely by administrative methods. The use of marketing management approaches, especially for the purpose of organizing events of social significance, social actions, and support for volunteer initiatives should be based on methods of event management.

Fourthly, there is an increase in demand for local events. Developing a global marketing strategy, corporations often find that the most difficult task is to make it understandable for individuals at the local level. In our country there are very low indicators of consumer confidence and loyalty to the manufacturer. The same situation with public authorities, and therefore the actual problem of increasing the authority of public authorities, can be solved using strategies of event management.

Therefore, large-scale national social advertising campaigns bring less result than more narrow-minded social actions of public authorities at the local level. Local event management, for example, local governments, allows «access» to each individual citizen by establishing a strong associative link between his/her values and the results of local government activities. Local marketing programmes must be integrated into a global promotion strategy, such as administrative services, in order to ensure their effectiveness and long-term sustainability.

Fifthly it is the entertainment. In everything there is an element of entertainment, even in measures of public authority. In today's market, saturated with supply and information, such a simple value as entertainment can play a decisive role in establishing communication between the authorities and the public. Entertainment was the most popular product of global significance. Thus, entertainment is the tendency for an entertainment element to be present in any marketing activity, including the number of activities of public administration bodies.

Sixthly, it is an increase in the level of engagement of the audience in special events. The advantage of event management in the public domain is that the audience is given the experience that cannot be obtained by watching the event on the screen, listening to the radio or reading the newspaper. This means that the event from the beginning to the end should be such that each visitor can enjoy, relax during the event. This contributes significantly to the activation of citizens to participate in solving common social problems and government.

Such tendencies testify to the profound social essence of the phenomenon of event management, which allows it to study both economic and managerial, as well as some other methods of modern cognition.

The system of marketing communications used in the activities of modern bodies of public administration is represented by means, which are divided into two groups: basic and synthetic. Elements of the four main means of marketing communications (public relations, direct marketing, advertising, sales promotion) are present in the structure of other specific communication tools (branding, event management, integrated marketing communications in place of providing management and administrative services, fairs, exhibitions, etc.). Synthetic marketing communications in public management should include, along with elements of the marketing complex, certain basic marketing communication tools and specific communication elements (Примаков, 2009). The synthetic means of marketing communications – event-marketing or marketing of events-is becoming more widespread in implementing a marketing strategy for the operation of both enterprises and authorities. It is a tool for shaping the attitude of the public towards the activities of the enterprise and its products (Герасимов, Тульчинский, & Лохина, 2009).

Event management, which has always been an integral part of PR, is allocated to an independent activity and went beyond the informative function in relation to the consumer. The organization of special events is an unalterable component of the life of society at all stages of its development. In this case, we are talking about event management as a special kind of marketing communications.

It occurs when the organizational theory begins to develop, and organizers of special events are allocated in a separate, relatively independent sphere of professional activity. The stimulus for the development of this industry was the growth of the corporate sector, in particular, companies that grew, demanded services for the organization of business conferences, exhibitions, and corporate holidays (Мелентьева & Бичун, 2001).

Let us consider the socio-economic background of the use of event management in the modern social system and the possibilities of its use in the public sphere. Event management is, on the one hand, the type of integrated marketing communications, which is a set of activities aimed at promoting the product, service, and brand in the internal and / or external marketing environment by organizing special events. On the other hand, today it is a fairly widespread range of services for the organization of special events (Помат, 1995).

Events that are an object of management efforts within the framework of event management are classified into three types: working events; informative events; measures aimed at the organization of free time (Помат, 1995).

Event management is perceived immediately in two contexts: business as an instrument of marketing communications. The content of this phenomenon is to supply the consumer with goods and services as a gift. That is how much more precisely, one can convey the target content of this social, and by its nature and direction of influence, an economic phenomenon. Both the first and the second characteristics of it are quite relevant in the application to the public sphere, because it is not about profit, but about communication that needs to be spent.

In foreign and domestic theory, two terms are used at once – «event management» and «event marketing», which refer to different, but equally necessary, components of the organization of special events. Let us dwell on the distinction between these concepts, which is a kind of foundation for understanding the concept of using event management techniques in the field of public administration.

The paradox of event marketing is that it is the organizational issues that are characteristic of management as such, which are key factors in the image-formation of the event. It is no secret that the failure to take into account the details when organizing an event can lead to the establishment of negative

associations in the minds of target audiences and negative experience in connection with participation in this event. Conversely, attention to detail contributes to the creation of a positive reputation, even under the insufficient development of a strategy within the framework of general marketing. That is why management and marketing at the event are so closely interacting with each other.

Additional difficulties in distinguishing event marketing and event management arise also as a result of the double essence of this phenomenon, because it is both business and a variety of marketing communications at the same time (Ткачук, 2010). Moreover, there is parallel management of the event-company as an organization, marketing services, and events as an instrument of marketing and organizing events as areas of management, including public administration. That is why, speaking of event management in the context of public administration, it is necessary to clarify the context of the statement.

In forming the modern event of management, as a tool of public administration, it is possible to identify social factors. They lie in the plane of modern culture, and therefore, it is necessary to consider them in the framework of not only administrative but also sociological analysis of the process of consumption of this product of modern culture by society. We believe that in the process of influencing the consumer by the subjects of event marketing, there is a manifestation of a kind of relaxation as one of the technological functions of modern culture. In our understanding it is the culture of consumption of the product. Moreover, in this case there is a relaxation practice, expressed by means of event articulation and multidimensional modality. Note that in the process of conducting special events, all the signs and specific features of individual bodily relaxation are observed, however contradictory was the cultural determination of this type, and collective relaxation, comparable with the sociocultural potential of the event and its more saturated form - holidays. After all, the very event and holiday, in our opinion, are these cultural determinants and, in a way, technological ways of forming the relaxation effect on the basis of which the consumption of the social product takes place. Thus, event management as a social phenomenon has more significant managerial and even manipulative potential, especially in the aspect of critical and creative selection of various components of social experience than, say, ordinary advertising or traditional marketing. It is this liberalizing potential of the event, in our opinion, that can be actualized in various relaxation practices in the process of consumption of a managerial product or service. Taking into account the arguments put forward by us, it is quite easy to conclude on the relaxation potential of special events as an instrument of modern marketing technologies in public administration.

Firstly, a special event as a special non-daily phenomenon of human existence always has a certain sacred symbolic basis, which is perceived by humans as a social or supra-social value. Being essentially a manifestation of the veneration of a certain value, a special event requires special regulation in leisure and leisure time, as well as in the mode of emotional elevation, which is a significant factor in the formation of its relaxation effect.

Secondly, the relaxation effect through a special event is achieved in two opposite ways: on the one hand, the accumulated individual and social tensions are eliminated during the event of a special character of tolerant and altruistic communications that give birth to a sense of well-being, security and social comfort among people; and on the other hand, the removal of stress can be achieved through a well-known temporary violation of existing norms that are rooted in the minds of the consumer and undergo changes in the process of consumption of cultural product.

It should also be taken into account that the concrete ways of practical updating of the relaxation potential of event marketing are influenced by the content inherent in any society of the ethno-cultural tradition of social regulation of relaxation practices. It is obvious that without this circumstance it is impossible to formulate clear conceptual representations about the specifics and ways of connecting the constructive and destructive components of the relaxation potential of a special event as an instrument of product promotion and as a phenomenon of social life.

The main advantage of any special event is the establishment of direct contact between the client (product, brand) and the audience, the creation of a special emotional connection between them. Add the duration of the contact here and create a series of emotional experiences that are directly related to the brand / product - and at the exit we get a link between the brand and the audience (Ткачук, 2010).

The organization of political public events requires considerable effort, as it involves the creation of an event that solves complex social and political problems and makes serious political changes possible.

It should be noted that the use of the event in public politics and public administration has become a tradition for developed democratic countries. A political event, an event of a public nature, turns into a project that requires not only political content but also well-prepared management. Such projects are becoming more and more costly, and therefore, require adequate financial resources.

Political funding of projects in the field of public policy traditionally goes beyond the limits of state budget support. In some cases, there is a combination of public and non-public financial sources for the implementation of event

projects in the field of public policy or management. Such projects usually include election campaigns, public promotions, political shows, etc.

The financial resources of modern event management in public policy and management are formed as a result of the accumulation of state elements, political funding and charitable (mostly private) support. An important feature of such a combination of different sources of funding is the problem of the effectiveness of the use financial resources the various origins for the achievement of political goals that are relevant to a separate political force or political entity.

To solve the problem, public control tools are used:

- The source of funds in order to confront political corruption and prevent money laundering on events of a political nature;
- The procedure for implementing the financing of projects, spending budget funds. This involves financial monitoring of the activities of public administration bodies, political entities and citizens, which finance political projects as individuals;
- Results of the use of financial resources for the needs of public management and political activities.

Today, in democratic countries, the issue of confronting political corruption is quite acute without the help of such a tool as financial monitoring of the activities of political actors and bodies of public administration. Such monitoring is carried out by civil society actors and specially authorized bodies of state administration. The monitoring results are aimed at preventing the financing of events of a public nature having political or managerial objectives at the expense of sources of corruption origin. Modern mechanisms of financial monitoring of funding sources for public-political events require constant improvement.

At the same time, it is necessary to avoid the risk that a separate public authority, a politician, a group of political actors would turn into a closed event agency for servicing a particular political force or government. It is impossible to assume this, given the significant public significance of each public event.

Today, public administration and political actors are increasingly performing the functions of event management in view of the public nature of their activities and the general tendency to globalization of public-management impacts.

Thus, the greatest value of a special event is the feelings and emotions that it creates in the audience. It is in this and the greatest complexity of event management. It is very appropriate to refer to the laws of art here. The real art (no matter what genre), first of all, makes people empathize: to fear, suffer, laugh, feel happiness, and cry under the influence of what a person sees or hears.

Each properly organized special event should develop on the principle of drama: tie, culmination, interchange. It is precisely this sequence of events that keeps the audience in constant emotional tension, helps to collect and keep an eye out.

Conclusions

Today, the practice of state and local government bodies is one way or another associated with the application of marketing approaches to solving social and managerial problems. Modern technologies of event management in public policy and management have already become widespread, but their use does not take into account the important features of the public sphere, including such as the orientation of government activities towards the achievement of the public good, the desire for individualization of influence on the importance of massification, the need to involve citizens in active participation in the management of public affairs.

We consider it necessary to introduce in practice the practices of public administration bodies of scientifically sound approaches to the preparation and holding of public events based on a project approach. It is important to take into account in this process and the specifics of communication between the authorities of the authorities and the civil sector in the context of the actualization of society.

Prospects for further development in this field may include refinement of the content of event management techniques in the public sphere, their interconnection, classification and implementation in the practice of the work of the structural units of public relations, protocol work, youth and internal politics.

Summary

The aim of the study is to find ways to increase the effectiveness of public administration bodies through the use of event-marketing and event management technologies. The purpose of this article is the theoretical study of socio-economic factors, which enable public authorities to actively use in their activities such an element and tool of marketing management as management of public events.

The article analyzes the current state of the theory and practice of the use of event management in the activities of public administration bodies. The emphasis is placed on the search for socio-economic determinants that necessitate the introduction of effective models of event management in the activities of public administration and local government.

It is determined that the use of objective management quite logically reflects the content of the activities of public authorities in the conditions of the information society. The combination of the communicative function and the function of providing

public services in terms of content is a type of activity of the modern system of public administration.

The main prerequisites for the introduction of technologies is the management's activity in the activities of the authorities is the demarcation of the population, the benchmark of public authority on the citizen as a consumer of public services and a full member of the relations in the field of power, increasing demand for a combination of entertainment and social elements in public events.

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KLIMATA PĀRMAIŅU ADAPTĀCIJA LATVIJAS LAUKU ATTĪSTĪBĀ: IETEKMES NOVĒRTĒJUMS

Climate Change Adaptation in Rural Development in Latvia: an Impact Assessment

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Abstract. *This paper is based on empirical research and an analysis of individual cases of opportunities, which are provided or limited by climate adaptation in rural development in Latvia. The empirical research focuses on adaptation to climate changes, based on previous studies, scientific knowledge and approved theories of climate change adaptation in sector policies and updates of them in Latvia. The research includes an analysis of policy documentation on integration of targets and principles of climate change adaptation in the context of environmental policy and environmental management, focusing on the importance of use of farming and the environmental sector's environmental communication means in the reduction of the sector's vulnerability caused by climate changes. The pilot projects carried out in Latvia under sectoral policies comprise an essential part of the bibliographical analysis. Various views of main parties involved are summarized using the approach of attitude, action and investment. Different views and attitudes access to information exist, as well as on the need for parties to get involved in climate change reduction. The purpose of the research is to assess impact of climate change adaptation on development of rural areas in Latvia.*

Keywords: *climate change adaptation, policy, environmental and sustainable development.*

Ievads

Introduction

Klimata mainības procesu līdzšinējā izpēte sniedz norādi, ka paaugstinoties temperatūrai notiek izmaiņas nokrišņu daudzuma intensitātē, kas tālāk ietekmē apkārtējo vidi gan ekonomiskos, gan vides aspektos, gan sociālās sfēras kontekstā.

Latvijā pēdējo gadu laikā novērots, ka klimatiskie apstākļi mainījušies, un kļuvuši garāki siltuma periodiem. Latvijas ilgtspējīgas attīstības nodrošinājumam nepieciešams identificēt lauku saimniecisko sektoru riskus un ieguvumus klimata pārmaiņās, lai veiktu priekšlaicīgus pielāgošanās pasākumus. Ietekme uz lauku attīstību būs atšķirīga Latvijas dažādos reģionos un dažādu nozaru saimniecībās vienā novada teritorijā. Latvijā, izņemot regulāro laika apstākļu uzskaiti un prognozēšanu, ūdens kvalitātes monitoringu ūdenstilpēm un jūras krastu erozijas

mērījumu un to salīdzināšanu piekrastes teritorijai, atsevišķi zinātniski pētījumi par lauku attīstības sektoru klimata pārmaiņu adaptācijas piemērošanas ietekmi nav veikti. Viena no iespējām, kā nodrošināt vides ilgtspējīgu attīstību, ir klimata pārmaiņu saistīto pasākumu integrācija daudzveidīgā lauku attīstības sistēmā, sākot no plānošanas dokumentu izstrādes līdz apsaimniekošanas struktūru un ienākumu prakses rosināšanai. Integratīvā pieeja ir vērsta uz dabas vides aizsardzības interesēm, kuras atkarīgas no sabiedrības dabas vērtību, nepieciešamību un prasību apziņas izpratnes, kā arī no esošās līdzsvarotas lauku attīstības vīzijas.

Klimata pārmaiņu rezultātā novērtēti potenciālie riski un arī ieguvumi dažādos lauku attīstības sektoros. Izvairoties no nevēlamiem klimata mainības radītajiem riskiem un izmantojot pārmaiņu priekšrocības, nepieciešams īstenot savlaicīgus adaptācijas pasākumus, izvēloties konkrētus rīcības virzienus un pēc tam - secīgas darbības. Latvijas klimata pārmaiņu adaptācija ir vērsta uz esošo izmaiņu apzināšanos, kas nosaka pienākumu lauku saimniecisko sektoru plānošanā izvēlēties konkrētus rīcības virzienus, lai pielāgotos pārmaiņām.

Pētījuma tēmas aktualitāti raksturo nepieciešamība Latvijai izstrādāt klimata adaptācijas stratēģiju, atbilstoši Eiropas Savienības (ES) kopējai vienošanās par klimata izmaiņu ietekmes mazināšanu un aizsardzību, iesaistot lokālā un reģionālā līmeņa pārvaldībā pilsonisko sabiedrību, līdzsvarota un ilgtspējīga ekonomiskā, sociālā un ekoloģiskā kapitāla nodrošināšanai, par atskaites punktiem ņemot attieksmes, pasākumu un ieguldījumu pieejas.

Starptautiskās konvencijas un valstu apņemšanās mazināt klimata pārmaiņas ir radījušas iespējas Latvijā sākt adaptēt klimata politiku un izstrādāt normatīvos aktus, bet pieejamie statistikas dati pilnībā neatspoguļo ietekmes uz lauku vidē dzīvojošo cilvēku iespējām adaptēties.

Klimata pārmaiņu adaptācijā lauku ilgtspējīgas attīstības nodrošināšanā autore konstatē šādas problēmas:

- nav uzkrāta salīdzinošā pētnieciskā pieredze klimata pārmaiņu adaptācijā lauku sociālās vides ietekmes līmeņa noteikšanā,
- pastāv lauku vides ekonomiskā sektora tiešs apdraudējums.

Pētījuma mērķis: ir novērtēt klimata pārmaiņu adaptācijas ietekmi Latvijas lauku attīstībā.

Pētījuma hipotēze: klimata pārmaiņu adaptācijas lauku attīstībā ietekmi iespējams noteikt, ja tiks interdisciplināri novērtēta lauku sociālās vides adaptācijas spēja klimata pārmaiņām.

Pētījuma metodes: politisko un likumdošanas ietvardokumentu analīze, pētniecisko projektu sniegto datu analīze, lauka studiju prakses iegūto datu

analīze, socioloģiskā pētījuma metodes (iesaistīto galveno mērķgrupu intervēšana un anketēšana).

Literatūras apskats

Review of Literature

Vārds “ietekme” zinātniski skaidrots kā darbība, process, kas var pāriet uz rezultātu. Klimata pārmaiņu adaptācijas kontekstā pielietojami šādi ietekmes līmeņi: starptautiskais, ES, nacionālais, reģionālais un vietējais. Iespējamai klimata adaptācijas ietekmes norisei, izdalot to secīgos posmos, pielietojama Latvijas Universitātē izstrādātā 5P integratīvās plānošanas metodika, kas sastāv no secīgām darbībām ar pēctecīgu vides politikas realizāciju, ietverot problēmanalīzi, politiku, plānošanu, pārvaldi un pārbaudi (Ernšteins, Kauliņš, & Brizga, 2018). Šāda modeļa pielietojumu pieļauj Eiropas Komisijas „Baltajā grāmatā” labas valsts pārvaldes realizēšanai noteiktie principi: atklātība, līdzdalība, atbildība, efektivitāte un saskaņotība.

Svarīgu lēmumu pieņemšanā līdzdalība no iesaistītām pusēm sniedz iespēju izstrādāt plānus, kas svarīgi attīstības nodrošināšanai, veicot piemērošanās pasākumus, kas atbilst sabiedrības vajadzībām, vienlaikus nodrošinot uzsāktās klimata politikas efektivitātes izvērtēšanu, lai sniegtu iespēju izstrādāt pārdomātu rīcības programmu. Tā ir nacionālu un starptautisku varas institūciju spēja uzstādīt politiskus, sociālus un jebkādu citus mērķus, šo mērķu sasniegšanai izmantojot vienotu likumu sistēmu un kontroles mehānismus (Kļaviņš & Zaļoksnis, 2009).

Veiksmīga klimata adaptācijas norise iespējama iesaistot dažādas mērķgrupas starpdisciplināru pasākumu uzsākšanā. Klimata pārmaiņu adaptācijas kompleksa jautājumu risināšana teritorijas attīstībā ietekmē sabiedrības uzvedību gan ar veicinošiem, gan piespiedu mehānismiem: informācijas un komunikāciju aktivitātes palielina sabiedrības informētību un nodrošina to, lai valsts un nevalstiskās institūcijas sāktu rīkoties. Īpaši atbalstāmi gan finansiālie, gan normatīvie instrumenti. Latvijas teritoriju attīstībā jāveicina pašu organizētība un pašu atbildība tā, lai adaptācijas klimata pārmaiņām varētu tikt veiktas jauktā veidā – gan ar centralizētu pieeju, t.i. ar valdības lēmumiem, gan decentralizēti, t.i. ar iniciatīvām uz vietas. ASTRA projektā „Politikas un adaptācijas stratēģiju izstrāde klimata pārmaiņām Baltijas jūras reģionā” uzsvēta: adaptācijas integrācija sektorpolitikās, pārbaudot to sagatavotību klimata pārmaiņu aspektiem; jāizvērtē esošās un nākotnes jutīgākās sabiedrības grupas un aspekti, sabiedrības riski, kā arī esošās politikas, pielietojot monitoringa pasākumus. Klimata pārmaiņu iespējās lauku attīstību kavējošs faktors ir teritorijas nevienmērīgais iedzīvotāju blīvums, kuru ļoti lielā mērā ietekmē apdzīvojamums un darba vietu nodrošinājums. Stratēģiskie attīstības uzstādījumi paredz vienmērīgu

teritoriju attīstību, bet to realizāciju apgrūstina sagaidāmais iedzīvotāju skaita samazinājums no pilsētām attālākās vietās (Kļaviņš, 2008). No otras puses, Eiropā vērojama arī cita tendence – atsevišķi uz konkurētspēju orientēti lauku rajoni mērķtiecīgi piesaista turīgus pensijas vecuma un labi apmaksātus pašnodarbinātos pilsētniekus. Notiek zināma iedzīvotāju apmaiņa – mazāk turīgie lauku iedzīvotāji pāriet dzīvot uz blakus esošām pilsētām, bet turīgāki pilsētnieki ieņem viņu vietu.

Būtiskākie rīcības virzieni, kas varētu palīdzēt saglabāt dabas kapitālu un mazināt klimata pārmaiņas ir: integrēta pieeja vides, ekonomikas, telpiskas un reģionālās attīstības un zemes politikā; dabas kapitāla vērtības aprēķināšana; nodokļu un subsīdijas sistēmas restrukturizācija, lai ekonomiskie stimuli un instrumenti veicinātu dabas kapitāla saglabāšanu un ilgtspējīgu attīstību. Ilgtspējīgas attīstības nodrošināšanai jāiekļauj būtiskus ar klimata pārmaiņu ietekmēm saistītus jautājumus (skatīt 1.tabulu), piemēram, iekļaujot telpiskās attīstības perspektīvu, kuru veido inovatīva pārvaldība un sabiedrības līdzdalība (Latvijas Republikas Saeima, 2010).

*1.tabula. Pārskats par klimata politikas ietekmes attīstību Latvijā (autores veidots)
Table 1 Report on the Development of Climate Policy Impact in Latvia
(created by the author)*

Elementi un pieejas	1990. – 2010.	2010. – 2020.
Attieksme	Neitrāla attieksme, vai tāda nav vispār	Klimata pārmaiņu adaptācijas kontekstā politiskā attieksme institucionālā līmenī pasīva
Uzskati	Sabiedrībai nav īpaši uzskati par klimata politiku, jo politikas mērķi izpildās automātiski	Mērķgrupām uzskati par klimata adaptācijas norisi krasi atšķiras, lauksaimniecības sektors (KLP) gatavo priekšlikumus nākamajam atbalsta periodam
Pasākumi	2008.gadā pirmās indikācijas par klimata politikas pieejas nepieciešamību Latvijā – ES klimata pakete – CO2 kvotu piešķiršanas kārtības maiņa – ES klimata adaptācijas politika pirmās Latvijas adaptācijas stratēģijas piekrastei	No 2012.gada klimata adaptācijas politiku veido kā nacionāli kopēju stratēģiju, vai to integrē visos tautsaimniecības sektoros atsevišķi
Ieguldījumi	Pirmie reālie klimata kapitālieguldījumi zem klimata programmas (KPMI)	Veiksmīga klimata adaptācijas integrācija sniegs iespēju piesaistīt investīcijas

Pārskatā par klimata politikas ietekmes attīstību sniegts autores vērtējums par savstarpēji mijiedarbīgām klimata politikas attīstības veidošanās pieejām. Turpmākās klimata politikas attīstības iespējas paredz un norāda par emisiju samazinājuma nepieciešamību lauku ekonomiskajos sektoros. Samazinājumi, kuri līdz šim vairāk attiecās uz rūpnieciskā sektora attīstību, jāintegrē visos tautsaimniecības sektoros; šāda pieeja nodrošina ilgtermiņa iespējas darbības attīstībai piesaistīt investīcijas.

Metodoloģija ***Methodology***

Pētījums notika laika posmā no 2014. gada rudens līdz 2018. gada pavasarim ieskaitot, pielietojot vairākas pētniecības metodes.

Pamatojoties uz izpētes rezultātiem, sniegts vērtējums par lauku sociālās vides spēju adaptēties klimata pārmaiņām, kā arī sniegti priekšlikumi klimata pārmaiņu adaptācijai lauku vides attīstībā.

Literatūras analīze ir empīriskā socioloģisko pētījumu metode, kuru izmantojot iegūst nepieciešamo informāciju, veicot dažādu izzināšanas avotu analīzi, kuru saturā ir svarīga informāciju par pētāmo objektu un šī posma izpilde dod priekšstatu par izvēlēto problēmu un tās iespējamajiem risinājumiem. Ļoti būtiska literatūras analīzes daļa ir sektorpolitiku ietvara pētījumu pilotprojekti. Pielietojot literatūras analīzi iegūta nepieciešamā informācija par pētījuma objektu.

Pētījuma realizēšanai izvēlēta empīriskā pētījuma metode, kvalitatīvās un kvantitatīvās pētniecības metodes. No kvalitatīvajām pētniecības metodēm paredzētas intervijas. No kvantitatīvajām pētniecības metodēm pētījumā izmantota eksperta anketēšana. Pētāmās pazīmes var būt kvalitatīvas un kvantitatīvas. Par kvalitatīvu sauc tādu pazīmi, kuru nevar, izmērīt, bet tikai aprakstīt, piemēram, nodarbošanās, personiskie uzskati. Par kvantitatīvu sauc pazīmi, kuru var raksturot ar skaitli (Arhipova & Bāliņa, 2006).

Pētījuma norises laikā ar vairākām pētniecības metodēm darbs organizēts vienlaikus, kas nodrošinās metožu komplimentaritāti izvēlētajiem pētniecības laukiem. Pētniecības gaitā nodrošināts iepriekšminēto metožu pielietojums, nosakot tās kā atbilstošākās definētās problēmas attīstības scenārijam.

Kvalitatīvās pētniecības metode.

Intervēšana.

Ar interviju palīdzību noskaidroti jautājumi par klimata pārmaiņu adaptāciju intervējamam zināmā vidē. Tika noskaidrots intervējamo mērķgrupu viedoklis par iespējamo klimata adaptācijas pielietojumu ekonomikas dažādošanai lauku teritoriju ilgtspējīgai attīstībai.

Intervijas veidotas daļēji strukturētas. Pētījuma veikšana zināmā vidē palīdz ierobežot jautājumu kopumu ar zināmu apjomu, kuras laikā intervētājs nepauž

savus uzskatus, ļaujot respondentam sniegt uzskatus par piedāvāto tēmu, par motivāciju un darbības sistēmu. Interviju veikšanā tiks izmantota kritiskās domāšanas pieeja, pamatojoties uz to, ka analītiskie, gan vērtējošie aspekti vērsti uz būtības noskaidrošanu (Rubene, 2004).

Intervija palīdz iegūt atbildes uz jautājumiem, kuriem nav tieši konkrētas un vienotas atbildes. Intervijas norises laikā, veidojot īsas piezīmes iespējama vieglāka datu pēcapstrāde palielinot pārrunu protokolu pēc atmiņas. Kā negatīvs aspekts minams fakts, ka intervija prasa ievērojamu materiālo, kā arī laika resursu patēriņu un salīdzinājumā ar anketu aptver mazāku izlases kopumu (Kropļiņš & Raščevska, 2004).

Tika veiktas 26 intervijas, iesaistītas informantu grupas, kas vistiešāk saistītas ar pētījumā skartām klimata pārmaiņu adaptācijas ietekmēm. Interviju izpilde norisinājās klātienē abpusēji saskaņotā laikā, papildus nosūtot ar e-pasta starpniecību pamatjautājumu bloku, papildus būtisku nianšu noskaidrošanai izmantots telefons. Pirms intervijas dalībniekam tika sniegta informācija par jautājumu mērķi un informācijas izmantošanas nolūku.

Intervēšana – notika šādu mērķgrupu pārstāvjiem:

1. Valsts pārvaldes institūciju pārstāvjiem, ietverot reģionos esošo valsts institūciju darbiniekus – mērķgrupas paustais viedoklis pētījumā svarīgs, jo valsts klimata pārmaiņu adaptācijas procesā ieņem svarīgu lomu politisko ietvaru izstrādē nacionāla rakstura stratēģisko un normatīvo dokumentu ieviešanā.

2. Pašvaldību attīstības plānošanā iesaistītie, klimata adaptācijas pētījuma kontekstā nozīmīga mērķgrupa. Lauku teritoriju pašvaldībām sinerģiski uzņēmējdarbības vidē būtu jārada balanss starp klimata pārmaiņu samazināšanas un piemērošanas pasākumiem. Pašvaldība ir svarīgākais dzinējspēks, kas nosaka teritoriālas attīstības virzienus, iepazīstinot ar attīstības ietekmes perspektīvām.

3. Pētījuma gaitā tika intervēti lauku iedzīvotāji un lauksaimnieki, kas apsaimnieko dažāda lieluma zemes platības, noskaidrojot vides pārvaldības modeļa 5P pielietojuma iespējas klimata pārmaiņu adaptācijā. Svarīgs mazo zemnieku saimniecību viedoklis, jo viņi kopumā apsaimnieko lielas platības, bet viņiem ir vāja adaptīvā kapacitāte finanšu līdzekļu trūkuma dēļ, lai reaģētu uz klimata piemērošanās adaptācijas sniegtām iespējām.

Intervijas ir daļēji strukturētas pa blokiem, iekļaujot jautājumus par klimata pārmaiņu adaptācijas pasākumu ietekmi uz lauku saimniekošanas modeli un ilgtermiņa plānošanu pašvaldību līmenī klimata pārmaiņu ierobežošanai.

Pētījums vērsts uz klimata pārmaiņu adaptāciju un ietekmes procesu analīzi, balstoties uz iepriekšējiem pētījumiem, zinātniskajām teorētiskajām atziņām par klimata pārmaiņu adaptāciju tautsaimniecības sektorpolitikās un to aktualizēšanu Latvijā, vērtējot galveno mērķgrupu iesaisti pēc attieksmes, pasākumu un ieguldījumu pieejas.

Pētījumā analizēti politikas plānošanas dokumenti klimata pārmaiņu adaptācijas mērķu un principu integrācijā vides politikas un vides pārvaldības kontekstā. Būtiska literatūras analīzes daļa ir Latvijā veiktie pētījumu pilotprojekti.

Rakstā ietverts datu apkopojums no šādiem iepriekšējiem pētījumiem:

1. Individuālā gadījuma izpēte, „Klimata pārmaiņu adaptācija Latvijas lauku attīstībā” pamatojoties uz dokumentu izpēti, 26 intervijām, 64 atbildēm uz anketas jautājumiem un individuālu novērojumu. Pētījuma darbs tika veikts aptverot Latvijas reģionus: Vidzemi, Kurzemi, Zemgali un Latgali.
2. Gadījumu izpēti: „Klimata pārmaiņu adaptācijas politikas plānošanas vadlīnijas piekrastes pašvaldībai: Salacgrīvas novads Ekonomiskā vide: lauka studiju projekta darbs (2010., 2011., 2012.gads), pamatojoties uz dokumentu izpēti, 6 intervijām, individuālo novērojumu un grupas vērtējumu.

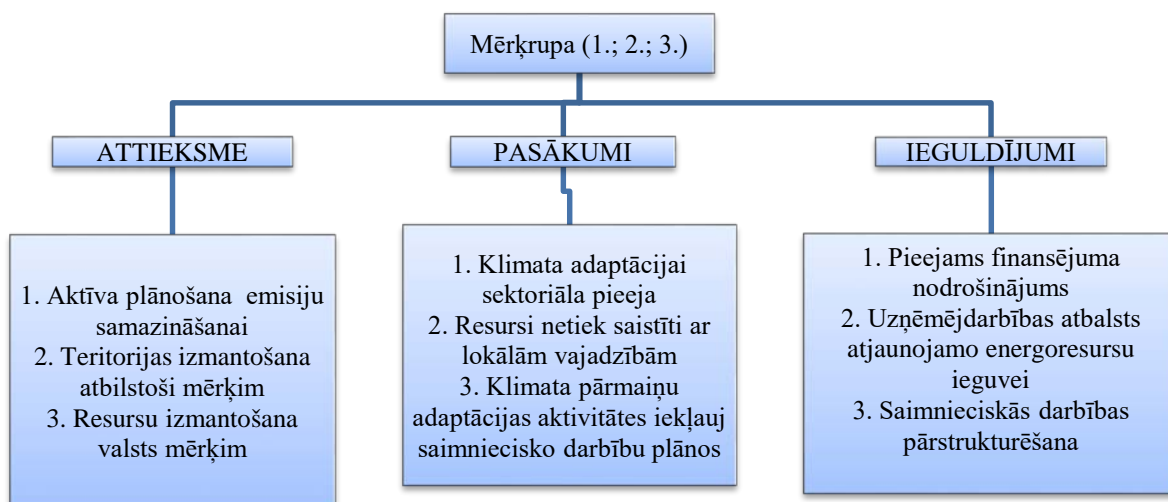
Izmantojot interviju uz vietas intervējamā darbības laukā, deva iespēju uzdot papildus jautājumus, ja intervējamais neizprata jautājuma būtību un veidot atgriezenisko saiti. Par tiešās intervijas trūkumu uzskatāms lielais laika patēriņš un sniegtās atbildes ne vienmēr tika paustas ar atklātu viedokli. Pētījumā noskaidrojās mērķgrupu izpratne par klimata pārmaiņu adaptācijas ietekmes problēmām līdztekus tika piedāvāti risinājumu veidi lauku attīstības nodrošināšanai.

Kvantitatīvās un kvalitatīvās metodes pielietojums izpētes rezultātu ieguvē, palīdzēja sniegt vērtējumu par notiekošo klimata pārmaiņu adaptācijā un sniegt priekšlikumus klimata pārmaiņu adaptācijai lauku attīstībā.

Pētījuma rezultāti

Results

Pētījumā iegūtie rezultāti novērtē klimata pārmaiņu sociālās vides mērķgrupu attieksmi, pasākumus un ieguldījumus klimata pārmaiņu adaptācijas ietekmes novērtējumā Latvijas lauku attīstībā turpmāko 20 gadu periodā. Iegūtie interviju un anketēšanas rezultāti, kas saistīti ar klimata pārmaiņu adaptācijas pasākumu ietekmi lauku attīstības modelī un ilgtermiņa plānošanu pašvaldību līmenī klimata pārmaiņu ierobežošanai, apkopoti pēc mērķgrupu sniegtās informācijas. 1.attēlā parādīts interviju un anketu rezultātu apkopojums par atskaites punktu ņemot pieejas veidus – attieksme, pasākumi un ieguldījumi.



1.attēls. *Mērķrupu pieejas veidi klimata pārmaiņu adaptācijai* (autores veidots)
 Figure 1 *Ways of Adapting Climate Change for Target Groups* (created by the author)

Intervētas tika trīs mērķgrupas:

1. Valsts institūciju pārstāvji - klimata politikas izstrādātāji, lēmumu pieņēmēji un normatīvo aktu izstrādātāji. Pārstāvji sniedz informāciju par plānošanas sadarbību ar pašvaldībām, plānošanas un teritoriju apsaimniekošanas darbībās informē sadarbības iespējām konsultatīvajās padomēs, kuras pirms vides aizsardzības institūciju reorganizācijas darbojās pie aizsargājamo teritoriju administrācijām. 80% informanti uzskata, ka tā bijusi abpusēji ļoti rezultatīva darbība, bet 20% nebija viedoklis šajā jautājumā.
2. Pašvaldības pārstāvji - svarīgākais dzinējspēks, kas nosaka teritoriālas attīstības virzienus. 60% informantu uzskata, ka tā ir katra lauksaimnieka izvēle, ar kāda veida saimniekošanu nodarboties. 40% informantu skatījumā attīstīsies gan lielsaimniecības, arī tās, kuras izmainīs pārtikas ražošanas iespējas pret citu nodarbošanos, gan daudznozaru saimniecības, uzsverot, ka noteicošās būs tirgus iespējas un iespējas saņemt atbalstu.
3. Lauku iedzīvotāji un lauksaimnieki ražotāji – klimata pārmaiņu ietekmēs piedalās, gan kā resursu patērētāji, gan kā klimata adaptācijas pasākumu īstenotāji lauku teritorijās. 75% informantu par ļoti motivējošām un nepieciešamām uzskata pārmaiņu drošības garantijas, ka turpmākā pārplānotā darbība būs stabila. 25% informantu sniedza informāciju, ka par klimata adaptāciju nedomā, saistot to ar dabas norišu procesiem. Atsevišķus ar klimatu saistītus monitoringa

pasākumus intervētie saimniecību īpašnieki neveic, nedz apstiprina, nedz noliedz, ka nākotnē to veiktu savā saimniecībā.

Ekspertu anketēšana, klimata pārmaiņu adaptācijā iesaistītajai mērķgrupai - lauku iedzīvotājiem un lauksaimniekiem ražotājiem, deva iespēju iegūt konkrētu vērtējumu problēmu identificēšanai klimata pārmaiņu adaptācijas ietekmē lauku attīstības sektoros.

Pētījums pierāda, ka klimata pārmaiņu adaptācijas lauku attīstībā ietekmi iespējams noteikt:

1. Interdisciplināri novērtējot lauku sociālās vides adaptācijas spējas klimata pārmaiņām.
2. Lauku teritoriju attīstībā virzīta uz interdisciplināru pieeju, klimata pārmaiņu ierobežojošos un adaptācijas pasākumus jārisina, ņemot vērā ilgtspējīgas attīstības nosacījumus.
3. Svarīgākais nosacījums lauku attīstības klimata adaptācijas politikas plānošanai un lauku teritoriju attīstībai kopumā ir cilvēkresursu kapacitātes veicināšana katrā no mērķgrupām.

Secinājumi

Conclusion

Salīdzinot klimata politikas ietekmes attīstību, iezīmējas paradigmas maiņa, klimata pārmaiņu adaptāciju, integrējot visos tautsaimniecības sektoros.

Izvēlēto pētniecisko metožu pielietojums palīdzēja iegūt datus un atsevišķi iegūtā informācija pārsniedza iepriekš noteiktās prognozes.

Lauku iedzīvotāji un lauksaimnieki intervijās sniedza iespēju uzzināt viedokli par klimata pārmaiņu adaptācijas ietekmi, kā arī vērtēt attieksmes, pasākumu un ieguldījumu pieejas pietiekamību.

Lauku iedzīvotāji un lauksaimnieki par motivējošām un nepieciešamām uzskata pārmaiņu drošības garantijas, ka turpmākā pārplānotā darbība būs stabila. Uzskata, ka plānošanas periodā 20 gadi ir ilgs laiks un saimniekošanas adaptācijas ietekme atkarīga no katra spējām un zināšanām.

Klimata pārmaiņu adaptācijas ietekmes par svarīgām saimniekošanas plānošanā neuzskata, jo vērtē tās par cikliskām norisēm, kuras notikušas ir visu laiku.

Intervētie lauksaimnieki atsevišķus ar klimata pārmaiņu adaptāciju saistītus monitoringa pasākumus neveic, nedz apstiprina, nedz noliedz, ka nākotnē to veiktu savā saimniecībā.

Lauku iedzīvotāji (strādā algotu darbu), novērojuši, ka ir divas klimata adaptāciju ietekmējošas tendences, viena – orientācija iegūt lauku atbalsta maksājumus (pārvēršas par atsevišķu biznesa veidu), sekundāra kļūst pati ražošanas attīstība un otra – naturālā saimniecība – nodrošinot ģimenes iztikšanu.

Pašvaldību pārstāvji par saimnieciskām izmaiņām 20 gadu periodā sniedz viedokli, ka klimata pārmaiņu adaptācijā intensīvā saimniekošana kļūs intensīvāka, "Zaļie" cīnīsies, bet zaudēs pozīcijas Uzskata, ka tā ir katra lauksaimnieka izvēle, kā nodrošināt klimata pārmaiņu adaptāciju.

Priekšlikumi ***Recommendation***

Autorei nepieciešams turpināt izpēti par klimata pārmaiņu adaptāciju Latvijas lauku sociālās vides attīstībā, lai novērtētu zināšanu līmeni lauksaimniecības vidē saistītajām mērķgrupām.

Pētniekiem nepieciešams izstrādāt indikatoru kopu, lai noskaidrotu, kādi zudumi ir bijuši un draud lauksaimniecības sektorpolitikās, nepieciešams novērtēt ieguldījumus klimata pārmaiņu adaptācijā.

Rīcībpolitikas veidotājiem un pētniekiem, kā arī sabiedrībai kopumā jāaktualizē diskusija par klimata pārmaiņu adaptācijā iespējamās ietekmes saistību ar lauku vides mērķgrupu spēju veikt ieguldījumus.

Pētniekiem jāizstrādā klimata pārmaiņu adaptācijas iespējamo ietekmju modeļi, kas sekmētu ieguldījumu veikšanu, vai dotu iespēju izvērtēt ieguldījumus.

Summary

The development of climate planning documentation is being performed from top to bottom using the approach of economic, social and environmental sectors. In the current situation farmers must show initiative themselves in order to encourage local and state authorities to determine internal and external resources for timely adaptation of climate changes in the agricultural environment.

The results obtained in the interviews and questionnaires of the research, related to the impact of climate change adaptation activities on the Latvian rural development model and long - term planning of climate change reduction in the level of local authorities, indicate that local authorities are the most important target group, located in the centre of adaptation policy teaming up with other target groups.

Use of quantitative and qualitative research methods in data collection helped to formulate assessment of ongoing climate change adaption as well as make suggestions about climate change adaption in rural areas.

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PRODUCTION POTENTIAL OF AN ENTERPRISE OPERATING AS A GROUP OF AGRICULTURAL PRODUCERS

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Abstract. *The research study describes an analysis of the management efficiency of an enterprise focused on egg production. The enterprise runs market cooperation as a group of agricultural producers. The aim of the work was to analyse the functioning of agricultural producers groups in Poland in terms of formal, legal and production conditions. A detailed analysis included a group focused on the production of table eggs, based in the Malopolskie province.*

Keywords: *group of agricultural producers, market*

Introduction

Agricultural enterprises face difficult development conditions these days. Producers must take action to modernize management and implement innovative solutions in the area of agricultural production technology. From the perspective of strengthening the production potential of individual farming and possible forms of cooperation, it would be advisable to treat an agricultural holding as a company which needs to compete in the market as any other business. Stimulating entrepreneurship of agricultural holdings is a prerequisite for the development of rural areas. The form of the agricultural holding has changed over the centuries, but the farm is surely the oldest production unit formed in

agriculture (Downey, 1996; Kocira, Kuboń, & Sporysz, 2017; Latawiec et al., 2017).

Poland's accession to the European Union in 2004 introduced a new market reality for agricultural producers. On the one hand, it is an opportunity for them to appear not only in the domestic market, but also in foreign ones. On the other hand, however, it imposes competition. Increased competitiveness in the European market of agricultural products forces the producers to have more efficient and productive management. Competition is one of the basic economic mechanisms that accompany the market economy (Kuboń, Sikora, Olech, & Szelağ-Sikora, 2018; Niemiec, Szelağ-Sikora, Kuzminova, & Komorowska 2018; Szelağ-Sikora, Niemiec, Sikora, & Chowaniak, 2017). It is a growing challenge for Polish agriculture to face competition from large and efficient agricultural producers operating in the EU. Higher productivity means greater efficiency, which in turn is a necessary condition to achieve a competitive advantage (Gródek-Szostak, Szelağ-Sikora, Sikora, & Korenko, 2017; Restuccia, Yang, & Zhu, 2008). All these factors determine the agricultural holding's production potential. As mentioned, production engages specific resources involved in the process, called the factors of production. In the case of agricultural production, the term includes labour, land and capital. Therefore, the holding's production potential depends not only on the number of resources, but also on their interaction (Szelağ-Sikora & Rorat, 2018; Niemiec, Mudryk, Sikora, Szelağ-Sikora, & Komorowska, 2018).

The aim of the work was to analyse the functioning of agricultural producers groups in Poland in terms of formal, legal and production conditions. A detailed analysis included a group focused on the production of table eggs, based in the Malopolskie province. The production potential of the above-mentioned producers group was presented, demonstrating its position in the constantly changing poultry market. In recent years there has been a significant variation in the profitability of large-scale table eggs production. The increase in feed costs largely impacts such a state of affairs. On the other hand, excess egg production results in low prices. In addition, a constant problem is financial liquidity, which remains at a rather low level. The production efficiency of agricultural producers groups, and thus the production potential of holdings, indicates that production costs are decreasing and the profitability of holdings that form the group increases. The main connecting factor is shared technical equipment as well as common supply of raw materials and sale of products. An unfavourable agrarian structure contributes to low productivity and slows down the implementation of technological innovations. As a result, crop cultivation and breeding of animals is deconcentrated; the holdings are not specialized enough, although their competitive position depends on it. An agricultural holding is considered to be fully competitive when it increases both its market

share and income from agricultural production (Szelaż-Sikora, Niemiec, Sikora, 2016; Sikora, Niemiec, & Szelaż-Sikora, 2018; Udry, Hoddinott, Alderman, & Haddad, 1995).

Research material and methods

The formation of agricultural producers groups is based on the concept of cooperation, which allows meeting the challenges of the market economy based on the principle of competition. Through proper organization and adjusting the production to the needs of the buyer, producers ensure a better market position, which is related to higher income (Bielski, 2004; Glasbergen, 2018; Sikora et al., 2017).

In Poland, an agricultural producers group can choose among four forms of business activity; a cooperative, a limited liability company, an association and a union.

In addition, groups of agricultural producers run business as legal persons, provided that:

- they were formed by producers of a single agricultural product, or a group of products;
- they operate on the basis of a statute or contract (a founding act);
- they consist of members or shareholders (none of them may have more than 20% of votes at a general meeting or shareholders' meeting);
- revenues from the sale of products, or groups of products grown in the holdings of the group members constitute more than half of the group's revenue from the sales of products or groups of products for which the group was established;
- they define for the group's members the rules regarding the quality and quantity of products or groups of products delivered to the group, as well as methods of preparing products for sale, in the form of an act of incorporation (Agricultural producers groups...)

Two economic and social goals have been distinguished, under which producers cooperate in the form of a producers group. The first type of goals involves running various forms of joint economic activity. It is possible to sell agricultural products coming from the group members' holdings. As part of the group's functioning, it is possible to adjust agricultural production to market conditions. Agricultural producers associated in a group increase their income by reducing costs, thus improving the efficiency of management, which is the main goal of the group's activity (Agricultural producers groups...). Producers cooperate frequently in production and providing various types of services

within the organization. Through such group activities, the profits of a group member increase, and not that of the organization.

The second group of implemented objectives includes activities such as: joint representation of interests or running and organizing support activities such as marketing, i.e. joint promotion of products (Agricultural producers groups...)

That said, cooperation of producers associated in the group brings a number of benefits, including:

- joint purchase of means of production - the possibility to buy cheaper fertilizers, plant protection products, transport, etc., at wholesale prices,
- offering a large and homogeneous batch of high quality goods,
- strong and ongoing relationship with buyers who are willing to sign long-term contracts, thanks to the possibility of ensuring continuous deliveries of a given batch size,
- joint preparation of appropriate batches of products (storage, packaging, labelling),
- joint investments (capital, loans, machines, warehouses, etc.) and introduction of new technologies,
- distribution of risk among all group members, and joint problem solving.

According to the National Network of Rural Areas (as at 18/06/2016), 1,258 agricultural producers' groups were registered in Marshal Offices, 65% of which operated as limited companies, 30% in the form of co-operatives, 4% in the form of unions and 1% in the form of an association.

In 2016, the number of producers groups specializing in the production of bird eggs was 15. In July 2016, the largest number of registered egg producers groups (PG) was in the Mazowieckie Voivodeship (3 PG), and in Silesia (2 PG). A single group of egg producers was registered in the following provinces: Wielkopolskie, Opolskie, Warmińsko-Mazurskie, Zachodniopomorskie, Podlaskie, Podkarpackie, Lubelskie, Śląskie, Łódzkie i Małopolskie. In the other provinces there was no group specializing in egg production (Newsletter of the Ministry of Agriculture ...,; Agricultural producers groups...).

According to Kuboń and Olech (2018), proper market competitiveness is possible only in the case of large agricultural holdings, which include agri-food processing, as well as wholesale and retail units in their organizational structures.

The research object was a producers group consisting of five holdings specializing in the production of table eggs, located in the Limanowski and Nowosądecki districts. The research was carried out in the form of a targeted interview using a previously developed questionnaire.

In the EU, the classification of agricultural holdings according to economic parameters is based on the concept of direct surplus which determines the efficiency of their resources management.

Direct surplus (DS) is expressed by the formula:

$$DS = GFP - DC \text{ (thou. PLN holding}^{-1}\text{)} \quad (1)$$

where GDP - the annual gross value of total crop and animal production. The value of specific animal production included: the value of the main product, the value of internal consumption, subsidies.

DC - direct costs incurred for production.

LU is an arbitrary unit of abundance of farm animals on a holding (Szeląg-Sikora et al., 2017) A holding's LU is calculated by multiplying the average annual number of its animals, according to the keeping system, by an appropriate conversion factor of individual animals. In the case of hens, it is 0.004.

Results and discussion

The production potential of the studied producers group

Table 1 shows the number of livestock on the surveyed holdings converted into LU holding⁻¹. The average livestock population was 97.65 LUholding⁻¹. The largest stocking density was 146.25 LU holding⁻¹ on holding no.1, and was equally high on farm no. 3. The lowest LU was on holding no. 5 -67.50 LU holding⁻¹. On the other two holdings, the poultry density was 78.75 LU holding⁻¹.

Table 1 Number of livestock on the surveyed holdings (own study)

No.	Specification	Holdings					
		Average	1	2	3	4	5
(LU holding ⁻¹)							
1	Poultry	97.65	146.25	78.75	117.00	78.75	67.50

For the researched holdings, the average value of animal production amounted to PLN 3231.44 thou. holding⁻¹ (Table 2).

Table 2 Total animal production (own study)

No.	Specification	Holdings					
		Average	1	2	3	4	5
(thou. PLN holding ⁻¹)							
1	Poultry	3,231.44	5,070.00	2,610.00	3,672.00	2,530.00	2275.20

Across individual holdings, there is a large variation in the total gross value of obtained production. The results range from PLN 5070.00 thou. holding⁻¹ on holding no. 1 to PLN 2,277.20 thou. holding⁻¹ on holding no. 5. Due to the above, the difference between the holding with the highest gross production and the holding with the lowest was PLN 2794.80 thou. holding⁻¹.

Table 3 Direct purchase expenditures on animal production (own study)

No.	Specification	Holdings					
		Average	1	2	3	4	5
(thou. PLN holding ⁻¹)							
1	Total	1499.34	2297.12	1161.42	1808.02	1218.41	1011.75
2	Purchased feed	964.99	1468.80	735.84	1184.35	800.00	635.98
3	Purchased inventory - chicks	91.14	136.50	73.50	109.20	73.50	63.00
4	Other	443.21	691.82	352.08	514.47	344.91	312.78

Average purchase expenditures on animal production amounted to PLN 1499.34 thou. holding⁻¹ - the highest was PLN 2,297.12 thou. holding⁻¹ on holding no.1, while the lowest was on holding no. 5, where the expenditures were over 50% lower (Tab. 3). The highest purchase expenditures by the researched holdings related to the purchase of feed, PLN 964.99 thou. holding⁻¹ on average, which accounted for 64.3% of total expenditures. The highest feed purchase expenditures in relation to total expenditure were incurred by holding no. 3, in which the ratio amounted to 65.5%, and by holding no. 1, with the ratio 63.9%. Feed purchase expenditures were similar on holdings no. 2 and 5. The lowest feed purchase expenditure was recorded on holding no. 4, with 62.4% of total expenditure.

Table 4 Direct surplus (DS) (own study)

No	Specification	Holdings					
		Average	1	2	3	4	5
(thou. PLN holding ⁻¹)							
1	Poultry	1,732.10	2,772.88	1,448.59	1,863.98	1,311.59	1,263.45

The average value of direct surplus in the case of poultry production was PLN 1732.10 thou. holding⁻¹ (Tab. 4). The highest value was achieved by holding no. 1, amounting to PLN 2772.88 thou. holding⁻¹. Another farm for which the direct surplus value was above the average was holding no. 3.

Market position of the researched producers group

The market position of the surveyed group is constantly challenged by competition or the technological race. It can be measured by market share and the ability to maintain or increase this share. The researched producers group was the only one operating in the poultry industry in the Małopolskie and Podkarpackie provinces. A small share of imports, just 3%, allowed the group to reach a significant position in the local and regional markets. The share of the analysed producers group amounted to as much as 23% in the egg market in the above-mentioned region (Figure 1). This illustrates the group's high position in the local market.

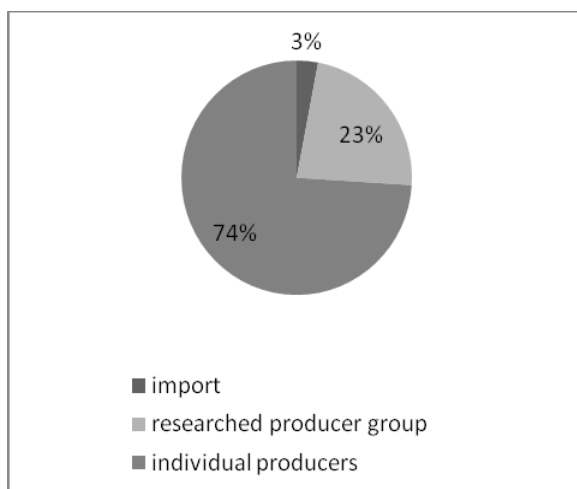


Figure 1 The share of researched egg production holdings in the Małopolskie and Podkarpackie provinces, as compared with other producers (own study)

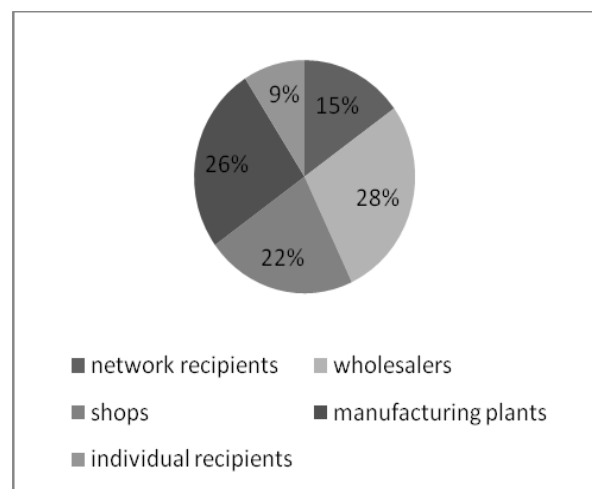


Figure 2 Buyer structure (own study)

As demonstrated in Figure 2, the main buyers were the chain customers, stores and wholesalers with which the producers group had long-term contracts. Only 26% were individual recipients. The purpose of long-term contracts is to keep buyers for a longer period. It is a way to realize competition policy in sales markets. This situation allows developing long-term strategies.

As in every branch of the market, interest in a particular product might decrease, and such was the case for the poultry market. Therefore, the entire poultry sector has faced a major challenge, i.e. the decline in the demand for eggs, which has been on a consistent and steady decline for several years (Figure 3). Maintaining the volume of production and sales depends on the continuous improvement of the distribution chain, focusing on the needs of customers, as well as on adjusting to the changes in price and quantity. All these functions, as well as broadly understood marketing, are currently realized jointly within the

producers group. Such activities are necessary to maintain the competitive edge in the face of overall decline in demand.

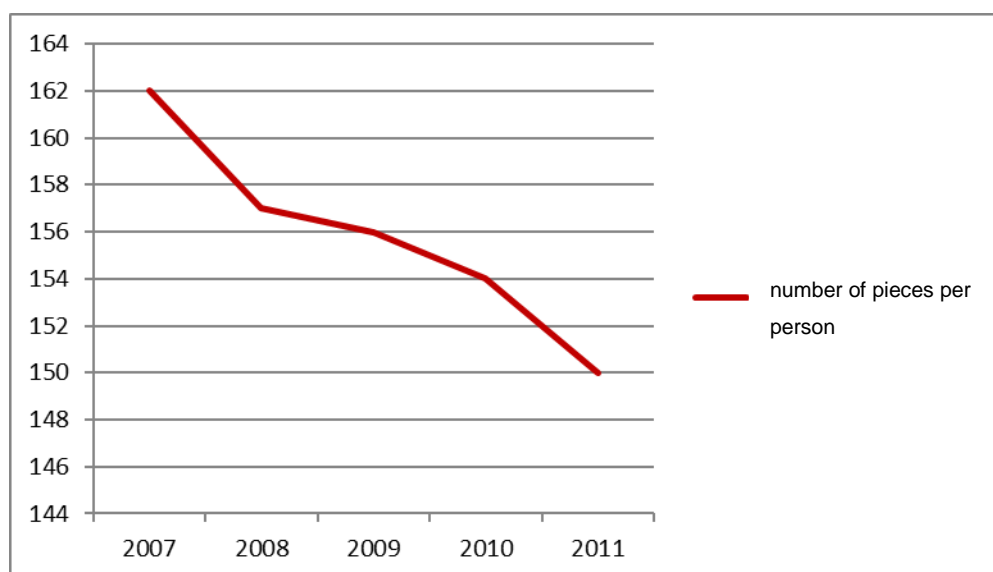


Figure 3 Demand for eggs in Poland in 2007-2011 - average domestic consumption of eggs per person (own study)

Table 5 Comparison of prices of table eggs in the wholesale market and in the surveyed group in 2016 (own study)

Month	Average price of egg (PLN pcs ⁻¹)		Difference
	Market price	Price in the researched producers group	
January	0.29	0.32	0.03
February	0.35	0.38	0.03
March	0.52	0.50	- 0.02
April	0.42	0.50	0.08
May	0.26	0.37	0.11
June	0.27	0.37	0.10
July	0.27	0.30	0.03
August	0.30	0.30	-
September	0.32	0.34	0.02
October	0.33	0.34	0.01
November	0.34	0.35	0.01
December	0.33	0.35	0.02
		Total	0.42
		Average	0.04

The data included in Table 5 illustrates the market prices of table eggs, and offered by the researched group, in 2016. According to the data, producers associated in the studied group obtained a higher price, PLN 0.04 on average, than they would in the market. The greatest difference was recorded in May, with the market price being lower by as much as PLN 0.11. In one month the market price was higher than the price offered by the group, however, this was due to the overall strong increase in the price of eggs.

Conclusions

The need of improving the competitiveness of agricultural holdings have led to the formation of new forms of collective management in Poland. The integration of agricultural producers and forming producers groups creates new opportunities to rank high in the agricultural market. By operating in groups, producers benefit more than when operating individually. Producers with low production potential, operating on their own, are losing to a much stronger commercial and production environment.

1. A diversified value of gross total production can be observed in the researched holdings of the egg producers group. The value of this production category ranged from PLN 5070.00 thou. holding⁻¹ to PLN 2275,20 thou. holding⁻¹. This discrepancy is related to the amount of livestock.
2. Upon analysing the market position of the producers group, it was demonstrated that the researched producers group accounted for as much as 23% of the egg production market in the Małopolskie and Podkarpackie provinces. This illustrates the group's high position in the regional market.
3. According to the analysis of the results, 74% of the group's buyers were chain customers, stores and wholesalers with whom the group had long-term contracts. Only 26% were individual buyers.

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DARBA VIDES IETEKME UZ NODARBINĀTĪBAS PAAUGSTINĀŠANU DARBA TIRGŪ IZGLĪTĪBAS NOZARĒ LATVIJĀ

Working Environment Impact on the Latvian Labor Market Growth in the Education Sector

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Abstract. *Increasing participation of the elderly people in the labor market has significant potential to reduce the demographic burden. People who want to stay in the labor market longer and are physically fit to work longer should create the conditions for these opportunities. Research is needed to discover these options. Extending people's working lives depends on many factors. One of them is a working environment that is specific to each sector and different in each company. The aim of this research is to study the impact of some working environment factors on people's decision to work in retirement age in the education sector. This topic has not been sufficiently studied in Latvia yet. Express surveys and the survey methods were used for self-assessment of the impact of the working environment on people's decision to stay in the labor market longer. The developed proposals concern to creation of career support strategies for the elderly employee. It will be able to promote the growth of labor market potential in Latvia in the education sector.*

Keywords: *education sector elderly employee, employment, working environment*

Ievads

Introduction

Kā viens no izaicinājumiem veselības un drošības jomā Eiropas Savienības (ES) darba aizsardzības pamatstratēģijā (2014-2020) tiek uzsvērts ES darbaspēka novecošanās (European Commission, 2014). Sabiedrības novecošanās ir izaicinājums darba tirgum. Pieaug demogrāfiskā slodze, samazinās darbaspējīgo iedzīvotāju īpatsvars, kas ietekmē ekonomisko izaugsmi un sociālo politiku.

Gados vecāku iedzīvotāju līdzdalības paaugstināšanai darba tirgū ir būtisks potenciāls, lai mazinātu demogrāfiskās slodzes pieaugumu. Cilvēkiem, kas vēlas ilgāk palikt darba tirgū un ir fiziski spējīgi strādāt, jārada apstākļi šīm iespējām. Ņemot vērā ar sabiedrības novecošanos saistītos izaicinājumus darba tirgū, būtiski ir sniegt gados vecākajiem iedzīvotājiem atbalstu, kas veicinātu šīs vecuma grupas konkurētspēju darba tirgū (Centrālā statistikas pārvalde, 2018). Darba dzīves

pagarināšana atkarīga no daudziem faktoriem. Latvijā ir veikti pētījumi par darba devēju attieksmi pret vecāku darbinieku nodarbinātību, pensijas ietekmi uz darbinieku izvēli strādāt pensijas vecumā, karjeras atbalsta iespējām, diskrimināciju u.c. No Rīgas Stradiņa universitātes aģentūras pētījuma izriet, ka gados vecākiem darbiniekiem retāk notiek konflikti ar vadītājiem, citiem darbiniekiem un klientiem. Gados vecākie cilvēki pakļauti dabīgam novecošanās procesam, tomēr galvenais faktors, kas negatīvi ietekmē veselības stāvokli jau no 25 gadu vecuma, ir darba apstākļi (Eiropas darba drošības..., 2014). Darba vide ir specifiska katrā nozarē un atšķirīga katrā uzņēmumā. Latvijā darba vides faktoru iespaids uz cilvēka darba mūža pagarināšanu nav pietiekami izpētīts.

Šī pētījuma mērķis ir analizēt darba vides faktoru iespējamo ietekmi uz cilvēku lēmumu turpināt darbu pensijas vecumā izglītības nozarē.

Pētījumā tika izmantoti statistikas dati, Latvijas un ES normatīvie akti, kā arī pētījumi par darba spēka novecošanās problēmām. Veicot pašnovērtējumu par darba vides ietekmi uz cilvēku lēmumu ilgāk palikt darba tirgū izmantotas ekspresaptaujas un aptaujas metodes. Datu apstrādei tika izmantoti SPSS rīki.

Darba dzīves pagarināšana kā nozīmīgs stratēģisks izaicinājums *Extending people's working lives as an important strategic challenge*

Lisabonas deklarācijas preambulā īpaši tiek novērtētas vecāka gadagājuma cilvēku zināšanas, dzīves pieredzes bagātība, viņu personīgās dzīves papildījums un viņu ieguldījums sabiedrības labā, kā arī uzsvērts, ka vecāka gadagājuma cilvēki nav viendabīga grupa, bet atšķirīgi ar savām vajadzībām, vēlmēm un iespējām visā viņu dzīves laikā. Deklarācijā tika norādīti šādi veidi vecāku cilvēku potenciāla atzīšanai: dot iespēju realizēt fiziskās, garīgās un sociālās vajadzības visā viņu dzīves laikā; dot iespēju piedalīties sabiedrības dzīvē un dot ieguldījumu tajā saskaņā ar viņu spējām un vajadzībām, īstenojot sociāli atbildīgas un uz nākotni vērstas ekonomikas un finanšu stratēģijas, kas aptver pašreizējās vajadzības, nākamo paaudžu cerības, vienlaikus novērtējot gados vecāku cilvēku potenciālu, viņu dzīves pieredzi, viņu atbildību un atbalstu visām paaudzēm un sabiedrībai; veicināt vecāka gadagājuma cilvēku līdzdalību valsts, reģionālajā un vietējā līmenī, izstrādājot politikas, stratēģijas un pasākumus, kas tieši vai netieši ietekmē viņu dzīvi, ņemot vērā vecāka gadagājuma cilvēku daudzveidību un viņu vajadzības; veicināt vecāka gadagājuma cilvēku pozitīvu tēlu, atzīstot un uzsverot viņu ieguldījumu sabiedrības labā. Deklarācijā ir aicinājums veicināt ilgāku darba dzīvi un spēju strādāt, atzīstot vecāka gadagājuma darba ņēmēju nodarbinātības potenciālu, un izstrādāt darba tirgus stratēģijas, lai veicinātu maksimālas līdzdalības iespējas visu vecumu darba ņēmējiem; veicināt piekļuvi un veicināt mūžizglītības iespējas un attīstību prasmes, kas ir priekšnoteikums aktīvai un

pilnvērtīgai dzīvei visos vecumos, veicināt ilgāku darba dzīvi un spēju strādāt (United Nations Economic..., 2017).

2018.gada sākumā Latvijā bija 1,93 miljoni iedzīvotāju, to skaitā 269,8 tūkstoši jeb 13,9% bija pirms-pensijas vecuma iedzīvotāju. Ar katru gadu šīs vecuma grupas iedzīvotāju skaits pieaug (no 2010. līdz 2018. gadam par 9,1%). Šīs vecuma grupas iedzīvotāji iespaidoja arī migrācijas procesus. 2017. gadā emigrēja 17,7 tūkst. iedzīvotāju, no tiem 1,1 tūkstotis jeb 6,4% bija pirms-pensijas vecumā, bet Latvijā ieradās 9,9 tūkstoši, no kuriem 0,9 tūkstoši jeb 9,3% bija 55–64 gadu vecumā (Centrālā statistikas pārvalde, 2018). Pasaules bankas (PB) pētījumā, pamatojoties uz EUROSTAT datiem, tika izteiktas prognozes, ka 2030. gadā Latvijā iedzīvotāju skaita īpatsvars vecumā 50+ sasniegs 45,6%, bet nodarbināto iedzīvotāju skaita īpatsvars vecumā 50+ sasniegs 33,6% (Levin & Sinnott, 2013). Sabiedrības novecošanos, kā arī iedzīvotāju skaita samazināšanos Latvijā ietekmēja arī gados jaunāku cilvēku emigrācija, kas pastiprinājās pēc Latvijas pievienošanās Eiropas Savienībai (ES).

2017. gadā Latvijā 55-64 gadu vecuma grupā bija 62,3% nodarbināto, kas ir par 5,2 procentpunktiem augstāks par ES vidējo rādītāju (57,1%). Kopumā nodarbinātības līmenis Latvijā bija 62,9%, bet ES – 59,7%. Visaugstākais 55–64 gadus vecu iedzīvotāju nodarbinātības līmenis ir Zviedrijā, Vācijā, Dānijā un Igaunijā (Centrālā statistikas pārvalde, 2018).

Atbilstoši demogrāfiskajām tendencēm Latvijā pakāpeniski tiek paaugstināts pensionēšanās vecums, tādējādi veicinot ilgāku līdzdalību darba tirgū un nodrošinot pensiju sistēmas ilgtspēju. Atbilstoši PB pētījuma datiem iedzīvotāji ar augstāku izglītības līmeni ātrāk spēj iemācīties jaunas prasmes un pielāgoties mainīgajiem darba tirgus apstākļiem. Cilvēki ar augstāku izglītības līmeni lielākoties strādā profesijās, kas nav saistītas ar fizisku piepūli, kā rezultātā ir iespējams strādāt ilgākus gadus. Pētījumā tika atzīmēts, ka nav pamata apgalvot, ka, novecojot, prasmes kopumā samazinās, drīzāk var runāt par dažādu prasmju attīstību dažādos vecuma posmos. Jaunākie darbinieki 25 – 34 gadu vecumā lielākoties izmanto informācijas komunikāciju tehnoloģijas (IKT) prasmes, izrāda lielāku iniciatīvu mācīties un mācās vairāk, bet gados vecākie darbinieki 55 – 64 gadu vecumā labāk tiek galā ar uzdevumiem, kuri paredz rīcības brīvību, lai sasniegtu darba mērķus (Levin & Sinnott, 2013).

Eiropas sociālās labklājības politikas un pētījumu centrs izstrādāja aktīvās novecošanās indeksu (ANI), kas ir instruments 55+ vecuma iedzīvotāju neizmantotā aktīvās novecošanās potenciāla novērtēšanai. Šo indeksu veido 22 indikatori, kas ir sagrupēti četrās dimensijās: 1) nodarbinātība; 2) līdzdalība sabiedrībā (brīvprātīgās aktivitātes, bērnu un mazbērnu aprūpe, gados vecāku personu aprūpe, politiskā līdzdalība); 3) neatkarīga, veselīga un droša dzīvošana (fiziskā aktivitāte, veselības aprūpes un zobārstniecības pakalpojumu pieejamība, neatkarīga dzīvošanas, finansiālā drošība, fiziskā drošība, mūžizglītība);

4) kapacitāte un aktīvu novecošanos veicinoša vide (paredzamais mūža ilgums 55 gadu vecumā, veselīga mūža ilgums 55 gadu vecumā, garīgā veselība, IKT lietošana, sociālā vide, izglītības līmenis). ANI mēra līmeni, kādā gados vecākie cilvēki dzīvo patstāvīgi, piedalās apmaksātā nodarbinātībā un sociālajā darbībā, kā arī viņu spēju aktīvi dzīvot. PB veica pētījumu “Aktīvās novecošanās izaicinājumi ilgākam darba mūžam Latvijā”. Šajā pētījumā tika noteikts ANI visām ES valstīm. Starp 28 ES valstīm kopējā ANI rangs tabulā Latvija ir ierindota 19. vietā. “Nodarbinātības” rādītājs šajā indeksā Latviju ierindoja 9. vietā, toties “līdzdalība sabiedrībā” – 21. vietā, “neatkarīga, veselīga un droša dzīvošana” – 28. vietā un “kapacitāte un aktīvu novecošanos veicinoša vide” – 23. vietā. Zemākais rezultāts attiecībā uz veselības aprūpes pieejamību un mūžizglītības iespējām var ietekmēt gados vecāko iedzīvotāju nodarbinātības iespējas un konkurētspēju darba tirgū kopumā (Levin & Sinnott, 2013).

Lai kopumā novērtētu gados vecāko iedzīvotāju darba kvalitāti PB aktīvās novecošanās pētījuma ietvaros izstrādāja darba kvalitātes indeksu (DKI), kas aptver tādus aspektus, kā darba alga, darba aizsardzība, izglītības iespējas, nodarbinātības rādītājus un pārkvalifikācijas iespējamību. Atbilstoši minētā DKI rezultātiem gados vecāku darbinieku darba kvalitāte ir salīdzinoši zemāka nekā jaunākām iedzīvotāju grupām. Tomēr prasmju novecošanās iespējamība lielāka ir pirms-pensijas vecuma iedzīvotāju vidū, kamēr pensijas vecuma nodarbināto prasmju novecošanās nav izteikta, kas var tikt skaidrots ar faktu, ka turpināt strādāt, sasniedzot pensijas vecumu, lielākoties izvēlas darbinieki ar augstāku izglītības līmeni (Labklājības ministrija, 2016).

2016. gadā ir izstrādāta Latvijas aktīvās novecošanās stratēģija, kuras mērķis ir veicināt ilgāku un veselīgāku Latvijas iedzīvotāju darba mūžu, uzlabojot iedzīvotāju un valsts ekonomisko situāciju kopumā (Labklājības ministrija, 2016). Stratēģija ietver risinājumu aktīvās novecošanās situācijas uzlabošanai Latvijā. Tajā tika izvirzīti četri rīcības virzieni :

- 1) gados vecāku iedzīvotāju iekļaujošs darba tirgus;
- 2) izglītoti un kompetenti gados vecākie darbinieki atbilstoši mainīgajiem darba tirgus apstākļiem;
- 3) veselīgi un fiziski aktīvi gados vecākie iedzīvotāji, kas pēc iespējas ilgāk turpina aktīvu un neatkarīgu dzīvi;
- 4) sociāli aizsargāti gados vecākie iedzīvotāji.

Demogrāfiskās tendences liecina, ka kvalificētu darbinieku piedāvājums nākotnē varētu būtiski samazināties. Līdz 2025. gadam pienācīgi kvalificētu darbinieku trūkums Latvijā varētu pārsniegt 17 000, galvenokārt tādās jomās kā enerģētika, datorzinātnes, celtniecības, inženiertehniskie sektori, kā arī elektronikā un automātikā (European Commission, 2018). Demogrāfija ir ļoti svarīgs faktors, kas ietekmē arī izglītības nozari. 2018. gadā 5.8% no kopējo nodarbināto skaita vecumā 65+ strādāja izglītības sektorā. “Augstāks izglītības

līmenis palielina seniora konkurētspēju un ir viens no faktoriem, kas liecina par darbinieka potenciālo produktivitāti” (Opmane, 2018). Izmantojot Izglītības un Zinātnes ministrijas (IZM) pārskata datus par augstāko izglītību (IZM augstākās..., 2018), var secināt, ka Latvijas augstskolās 2017/2018. studiju gadā 46% no akadēmiskā personāla bija vecumā virs 50 gadiem: 21% no viņiem bija 50 - 59 gadu vecumā; 10% no viņiem bija 60 - 64 gadu vecumā un 15% - bija vairāk par 64 gadiem.

Kā liecina IZM statistikas pārskata dati (LR Izglītības..., 2018) vispārējās izglītības dienas skolās Latvijā 2017/2018. mācību gadā strādāja 28 778 pedagogi, 42,76% no viņiem - vecumā virs 50 gadiem. Vairāk par 4% no visiem strādājošajiem pedagogiem - pensionāri. 2017/2018. mācību gadā tikai 21 jauns skolotājs uzsāka savas darba gaitas. Tas nozīmē, ka skolotāju sastāvs šajā mācību gadā atjaunojās tikai par 0,073%. No tā izriet, ka skolotāju sastāvs novecojas un tā atjaunošanās nav pietiekama. Darba tirgū tiek nodarbināts ievērojams skaits pedagogu pensijas vecumā, pie tam pensionāru skaits pēdējo 10 gadu laikā nesamazinās (LR Izglītības ...,2018).

Pirms-pensijas un pensijas vecuma darbinieku motivāciju turpināt vai pārtraukt darba gaitas lielā mērā ietekmē darba vide. Šajā pētījumā mērķa grupa ir izglītības iestāžu darbinieki ar augstāko izglītību, un tie ir nevis fiziska, bet intelektuāla darba veicēji. Var pieļaut, ka šīs mērķa grupas atsevišķiem dalībniekiem būtu interese turpināt gan izglītojošo, gan pētniecisko darbu arī pensijas vecumā, tādā veidā pagarinot savu darba mūžu.

Pētījuma metodoloģija **Research methodology**

Pilotpētījuma mērķis bija noskaidrot, kā atsevišķi darba vides faktori iespaido pedagogu motivāciju paildzināt darba mūžu.

Mērķa grupā tika izvēlēti 50 izglītības iestāžu darbinieki: 25 pedagogi pirms-pensijas 50+ vecumā (no 50 līdz 59 gadiem), 15 - vecumā 60+(no 60 līdz 64 gadiem), 10 - vecumā 65+ (virs 65 gadiem).

Pētījuma periods: 2018. gada decembris - 2019. gada janvāris.

Tika veiktas 6 ekspresintervijas un 44 aptaujas (elektroniski). Tās ietvēra jautājumus, kas saistīti ar respondentu darba vidi. Respondenti tika aicināti veikt pašnovērtējumu saistībā ar darba vides faktoru iedarbību uz viņiem un to ietekmi uz lēmuma pieņemšanu turpināt/pārtraukt savas darba gaitas pensijas vecumā.

Izvēlētie darba vidi raksturojošie faktori tika sadalīti trijās grupās: pirmās grupas faktori skar cilvēka emocionālo attieksmi pret savu darbu; otrās grupas faktori raksturo kolēģu attieksmi pret respondentiem; trešās grupas faktori raksturo vadības attieksmi (skat. 1. tabulu).

1.tabula. *Darba vidi raksturojošie faktori* (autores veidota)
Table 1 *Factors of the work environment* (created by the author)

Emocionālie faktori	Kolēģu attieksmes faktori	Vadības attieksmes faktori
Mans darbs ir mans hobijs Mans darbs mani dara laimīgu Jaunu zināšanu apguve man patīk Jaunas pieredzes apguve man patīk Stresa situācijas izsit mani no līdzsvara	Kolēģi mani atbalsta Draudzīga atmosfēra Cieņas izrādīšana Kolēģi gaida manu pensionēšanos	Manu darbu vadība nenovērtē Man jāstrādā papildus neapmaksāti darbi

Pētījumu rezultātu analīze *Analysis of the research results*

Pētījumā piedalījās trīs respondentu vecuma grupas: 25 respondenti vecumā 50+(no 50 līdz 59 gadiem), 15 - vecumā 60+(no 60 līdz 64 gadiem), 10 - vecumā 65+ (virs 65 gadiem). 2. tabulā apkopotie dati rāda, ka visās trijās grupās ir respondenti, kuri ir gatavi turpināt darbu: 72% pirmspensijas 50+ vecuma grupā, 87% pensijas vecuma grupā 60+ un 90% pensionāru grupā 65+.

2.tabula. *Gatavība turpināt strādāt atkarībā no vecuma grupas respondentu skatījumā*
(autores veidota)

Table 2 *Readiness to continue working in the respondents' view* (created by the author)

		Gatavība turpināt strādāt, atbilžu skaits				Kopā, atbilžu skaits
		jā	par to vēl nedomāju	domāju nē	nē	
Vecums	50+	9	9	6	1	25
	60+	11	2	2	0	15
	65+	8	1	0	1	10
Kopā		28	12	8	2	50

Lai noskaidrotu faktoru ietekmi uz lēmuma pieņemšanu par darba dzīves pagarināšanas iespējām, katra darba vidi veidojošā faktoru grupa tiek pētīta atsevišķi.

Emocionālie faktori *Emotional factors*

3.tabulā attēloti respondentu pašnovērtējuma dati par emocionālo faktoru esamību viņu darba dzīvē. 4.tabulā attēlots respondentu pašnovērtējums par emocionālo faktoru ietekmi uz lēmuma pieņemšanu pārtraukt/ turpināt strādāt.

3.tabula. *Emocionālo faktoru esamības pašnovērtējums atkarībā no respondentu vecuma (autores veidota)*

Table 3 *Self-assessment of the existent of emotional factors depending on the age of respondents (created by the author)*

Faktori		Darbs ir hobijs		Laimīgs darbā		Jaunu zināšanu apgūšana		Jaunas pieredzes apgūšana		Stresa ietekme		Kopā
		jā	nē	jā	nē	jā	nē	jā	nē	jā	nē	
		atbilžu skaits										
Vecums, gados	50+	20	5	18	7	20	5	25	0	13	12	25
	60+	12	3	12	3	12	3	15	0	8	7	15
	65+	8	2	10	0	10	0	10	0	6	4	10
Kopā		40	10	40	10	42	8	0	0	27	23	50

Pētījuma rezultāti, kas apkopoti 3. un 4. tabulā ļauj secināt sekojošo: visās vecuma grupās 80% respondentiem darbs ir hobijs. 85% respondentu, kuriem darbs ir hobijs, un 60% no tiem respondentiem, kuriem darbs nav hobijs, ir gatavi turpināt darbu vai pagaidām vēl nedomā par tā pārtraukšanu. Tas nozīmē, ka, uztverot darbu kā hobiju, ir lielākas iespējas palikt ilgāk darba tirgū.

4.tabula. *Emocionālo faktoru ietekme uz gatavību turpināt darbu respondentu skatījumā (autores veidota)*

Table 4 *Influence of emotional factors on readiness to continue working from the viewpoint of the respondents (created by the author)*

Faktori		Darbs ir hobijs		Laimīgs darbā		Jaunu zināšanu apgūšana		Jaunas pieredzes apgūšana		Stresa ietekme		
		jā	nē	jā	nē	jā	nē	jā	nē	jā	nē	
		atbilžu skaits										
Gatavība turpināt darbu	jā	24	4	25	3	27	1	28	0	15	13	
	vēl nedomāju	10	2	11	1	11	1	12	0	4	8	
	domāju, nē	5	3	3	5	2	6	8	0	8	2	
	nē	1	1	1	1	2	0	2	0	2	0	
Kopā		40	10	40	10	42	8	50	0	27	23	

Pirms-pensijas vecuma grupā 50+ tikai 72% no respondentiem ir laimīgi savā darbā, pensijas vecuma abās grupās 88% no respondentiem ir laimīgi savā darbā. Vislabāk jūtās pensionāri vecumā 65+ (100% laimīgi). 80% respondentu vecumā 60+ jūtās laimīgi savā darbā, 72% no viņiem bija gatavi turpināt darbu vai pagaidām vēl nedomāja par tā pārtraukšanu. 60% no tiem, kas nejutās laimīgi savā darba vietā, vēlējās mainīt darbu. Var secināt, ka laimīgs cilvēks savā darba vietā varētu ilgāk noturēties darba tirgū.

84% no respondentiem labprāt apgūst jaunas zināšanas. 90% no tiem ir gatavi turpināt darbu vai pagaidām vēl nedomā par tā pārtraukšanu. 75% no tiem, kas nelabprāt apgūst jaunas zināšanas, vēlas mainīt darbu. Pilnīgi visi respondenti labprāt apgūst jaunu pieredzi, tikai 20% no viņiem vēlas mainīt darbu, 80% vēlas turpināt strādāt. Var secināt, ka vēlme apgūt jaunas zināšanas un jaunu pieredzi lielā mērā ietekmē darbinieka izvēli turpināt darba gaitas.

56% no visiem respondentiem stress izsit no līdzsvara, 71% no viņiem nevēlas mainīt darbu. 44% no visiem respondentiem stresa ietekmi nejūt, un 91% no viņiem vēlas turpināt strādāt. Var secināt, ka stresa faktors nav noteicošais darba turpināšanas /pārtraukšanas izvēlē.

Kolēģu attieksme *Colleagues' attitude*

Kolēģu attieksmes vērtējumā tika ietverti šādi faktori: atbalsts darba kolektīvā, draudzīga atmosfēra, cieņas izrādīšana un kolēģu attieksme pret respondenta pensionēšanos. Respondentu pašnovērtējuma rezultāti, kas saistīti ar kolēģu attieksmi, apkopoti 5. tabulā, 6. tabulā apkopoti pašnovērtējuma rezultāti par kolēģu attieksmes ietekmi uz respondentu gatavību turpināt darbu.

5.tabula. *Kolēģu attieksmes vērtējums respondentu skatījumā (autores veidota)*
Table 5 *Evaluation of colleagues' attitude from the respondents' point of view (created by the author)*

Faktori		Atbalsts kolektīvā		Draudzīga atmosfēra		Cieņas izrādīšana		Attieksme pret manu pensionēšanos		Kopā
		jā	nē	jā	nē	jā	nē	jā	nē	
		atbilžu skaits								
Vecums, gados	50+	24	1	19	6	24	1	3	22	25
	60+	12	3	10	5	15	0	6	9	15
	65+	10	0	10	0	10	0	5	5	10
Kopā		46	4	39	11	49	1	14	36	50

Pētījuma rezultāti, kas apkopoti 5 un 6. tabulā, ļauj secināt sekojošo: 92% respondentu izjūt atbalstu darba kolektīvā, 80% no tiem ir gatavi turpināt darbu vai pagaidām vēl nedomā par tā pārtraukšanu. 75% no tiem, kas nejūt atbalstu kolektīvā, arī gatavi turpināt darbu. Atbalsts darba kolektīvā lielā mērā veicina darbinieku izvēli turpināt strādāt.

6.tabula. *Kolēģu attieksmes ietekme uz gatavību turpināt darbu respondentu skatījumā*
(autores veidota)

Table 6 *Impact of colleagues' attitudes on readiness to continue working from the respondents' point of view* (created by the author)

Faktori		Atbalsts kolektīvā		Draudzīga atmosfēra		Cieņas izrādīšana		Attieksme pret manu pensionēšanos	
		atbilžu skaits							
		jā	nē	jā	nē	jā	nē	jā	nē
Gatavība turpināt darbu	jā	25	3	23	5	28	0	10	18
	vēl nedomāju	12	0	11	1	11	1	2	10
	domāju, nē	8	0	4	4	8	0	1	7
	nē	1	1	1	1	2	0	1	1
Kopā		46	4	39	11	49	1	14	36

78% respondentu jūt draudzīgu atmosfēru darba kolektīvā, 61% no tiem ir gatavi turpināt darbu vai pagaidām vēl nedomā par tā pārtraukšanu. 55% no tiem, kas nejūt draudzīgu izturēšanos, arī gatavi turpināt darbu. Draudzīga atmosfēra kolektīvā stimulē cilvēku vēlmi turpināt darbu arī pensijas vecumā.

98% respondentu izjūt cieņu darba vidē, 78% no tiem ir gatavi turpināt darbu vai pagaidām vēl nedomā par tā pārtraukšanu. Pedagoģiem vecumā 50+ ir svarīgi izjust cieņu darba vidē, un tas iespaido viņu gatavību turpināt darba gaitas.

28% respondentu domā, ka kolēģi gaida viņu pensionēšanos. Neskatoties uz to, 86% no viņiem ir gatavi turpināt darbu. 78% no tiem, kas pārliecināti, ka kolēģi negaida viņu pensionēšanos, ir gatavi turpināt strādāt. Kolēģu gaidas uz vecāka darbinieka pensionēšanos nenostādā kā noteicošais faktors pieņemt lēmumu turpināt/ pārtraukt darbu.

Vadības attieksme *Managers' attitude*

Vadības attieksmes faktoru pašnovērtējums attēlots 7. un 8. tabulā. Ikviens darbinieks veic vērtīgu darbu. Katram darbiniekam darba veikšanas motivators ir pārliecība, ka vadība viņa darbu uzskata par svarīgu un atbilstoši novērtē. Vadības attieksmei pret darbinieku veikumu ideālā gadījumā jābūt motivējošai, kas varētu veicināt darbinieku izvēlēties strādāt ilgāku darba mūžu.

7.tabula *Vadības attieksmes vērtējums respondentu skatījumā (autores veidota)*
Table 7 *Evaluation of managers' attitude from the respondents' point of view (created by the author)*

Faktori		‘Vadība nenovērtē manu darbu’		‘Man jāstrādā neapmaksāts papildus darbs’		Kopā
		jā	nē	jā	nē	
		atbilžu skaits				
Vecums, gados	50+	9	16	18	7	25
	60+	4	11	11	4	15
	65+	0	10	6	4	10
Kopā		13	37	35	15	50

8.tabula. *Vadības attieksmes ietekme uz gatavību turpināt darbu respondentu skatījumā (autores veidota)*

Table 8 *Impact of managers' attitudes on readiness to continue working from the respondents' point of view (created by the author)*

Faktori		‘Vadība nenovērtē manu darbu’		‘Man jāstrādā neapmaksāts papildus darbs’	
		jā	nē	jā	nē
		atbilžu skaits			
Gatavība turpināt darbu	jā	3	25	20	8
	vēl nedomāju	5	7	9	3
	domāju, nē	4	4	4	4
	nē	1	1	2	0
Kopā		13	37	35	15

Pētījuma rezultāti, kas apkopoti 7. un 8. tabulā ļauj secināt:

26% respondentu ir pārliecināti, ka vadība viņu darbu pietiekami nenovērtē, tomēr 62% no viņiem ir gatavi turpināt darbu vai pagaidām vēl nedomā par tā pārtraukšanu. 86% no tiem, kas pārliecināti, ka vadība viņu darbu novērtē pietiekami, gatavi turpināt darbu. Var secināt, ka darbiniekam, veicot izvēli turpināt darbu pensijas vecumā, ir svarīgi, ka vadība viņa darbu novērtē.

70% respondentu apliecina, ka viņi strādā papildus neapmaksātu darbu, tomēr 83% no viņiem ir gatavi turpināt darbu vai pagaidām vēl nedomā par tā pārtraukšanu. 73% no tiem, kas nestrādā papildus neapmaksātu darbu, gatavi turpināt darbu. Veiktās pilot-aptaujas rezultāti neliecina, ka pastāv korelācija starp ‘*papildus neapmaksāta darba pildīšanu*’ un respondentu izvēli turpināt/ pārtraukt darbu.

Secinājumi un priekšlikumi ***Conclusions and suggestions***

Gados vecāku iedzīvotāju līdzdalība darba tirgū ir būtisks potenciāls, lai mazinātu demogrāfiskās slodzes pieaugumu. Pedagogu novecošanās problēma ļoti lielā mērā skar izglītības nozari Latvijā, jo gandrīz puse no visiem pedagogiem ir vecumā virs 50 gadiem. Darba vide ir būtisks faktors, kas ietekmē 50+ vecuma darbinieku motivāciju turpināt/pārtraukt darba gaitas. Pilot-pētījuma rezultāti liecina sekojošo: ja pedagogiem darbs ir hobijs, viņi, ir arī laimīgi savā darba vietā; laimīgs cilvēks savā darba vietā varētu ilgāk noturēties darba tirgū; pedagogi, vecumā virs 50 gadiem, labprāt apgūst jaunu pieredzi un jaunas zināšanas, kas lielā mērā ietekmē darbinieka izvēli turpināt darba gaitas; stresa faktors nav noteicošais darba turpināšanas/pārtraukšanas izvēlē; atbalsts darbā un draudzīga atmosfēra kolektīvā stimulē cilvēku vēlmi turpināt darbu arī pensijas vecumā; pedagogiem vecumā 50+ ir svarīgi izjust cieņu darba vidē, tas iespaido viņu lēmumu turpināt strādāt; kolēģu gaidas uz vecāka darbinieka pensionēšanos nenostādā kā noteicošais faktors pieņemt lēmumu turpināt/ pārtraukt darbu.

Lai veicinātu pedagogu aktīvā darba mūža pagarināšanu, katras izglītības iestādes vadībai vajadzētu izstrādāt personāla karjeras atbalsta stratēģiju. Kā vienu no stratēģiskajiem virzieniem tajā vajadzētu noteikt pedagogu aktīvā darba mūža pagarināšanu. Rīcības plānā, kā vidēja termiņa dokumentā, būtu jāparedz dažādus atbalsta pasākumus, kas uzturētu vecāka gadu gājuma darbinieku konkurētspēju, t.sk., mūžizglītības pasākumus, veselīga dzīves veida veicināšanas pasākumus, kā arī atbalstošu un draudzīgu darba vidi.

Summary

Increasing the participation of elderly people in the labor market has significant potential to reduce the demographic burden. People who want to stay in the labor market longer and are physically fit to work longer should create the conditions for these opportunities. Extending people's working lives depends on many factors. One of them is a working environment that is specific to each sector and different in each company. The aim of this research is to study the impact of the work environment on people's decision to work in retirement age in the education sector. The working environment is an important factor influencing the motivation of pre-retirement and retirement age employees to continue or stop working. The results of this pilot study show the following: for many (80%) teachers work is a hobby and they are happy; a happy person in his workplace could stay in the labor market longer; persons over the age of 50 are happy to learn new experiences and new knowledge; the desire to learn new knowledge and new experiences greatly influences the employee's choice to continue working; the stress factor is not decisive for the continuation of work; support from the colleagues greatly contributes to the choice of employees to continue their work; a friendly

atmosphere in the collective stimulates people's desire to continue working even at retirement age; for educators aged 50+ it is important to feel respect at the working environment, which affects their readiness to continue working; colleagues' expectation of retiring an older employee does not work as a decisive factor in deciding to continue / discontinue work. In order to enhance the active life of teachers, the personnel support strategy should be developed in each educational institution. As one of the strategic directions, it should set out to extend the active life of teachers. The Action Plan, as a medium-term document, should provide for various support measures to maintain the competitiveness of elderly workers, like lifelong learning activities, measures to promote a healthy lifestyle as well as a supportive and friendly working environment.

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FORMATION OF THE SYSTEM OF IMPLEMENTATION OF THE CRISIS MANAGEMENT MECHANISM BASED ON THE EXAMPLE OF MINING ENTERPRISES

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Abstract. *In conditions of economic instability, the problem of implementation of the crisis management mechanism in modern industrial enterprises is of particular importance. The problem of the research is to develop recommendations as a result of the analysis of the financial condition of industrial enterprises of Ukraine in an unstable economy. The paper discusses the features of the implementation of anti-crisis programs in modern mining and processing enterprises with the determination of the share of equity for the difficult conditions of production and economic activity. The aim of the research is to analyze the financial condition of industrial companies and develop recommendations to overcome the crisis. Taking into account the specifics of mining and processing enterprises, in order to overcome the crisis and solve the problems of production for the effective use of raw materials, the paper identified logistics and financial opportunities, made a forecast of the financial condition in the near future and determined the probability of termination of their activities, as well as developed sound recommendations in the context of the implementation of the crisis management mechanism at iron ore plants. The main methods used in the study: analysis, synthesis, comparison, models for assessing the probability of bankruptcy.*

Keywords: *crisis management, financial instability, models of bankruptcy, iron ore plants.*

Introduction

In conditions of economic instability, the problem of implementation of the crisis management mechanism in modern industrial enterprises is of particular importance. The problem of the research is to develop recommendations as a result of the analysis of the financial condition of industrial enterprises of Ukraine

in an unstable economy. The paper discusses the features of the implementation of anti-crisis programs in modern mining and processing enterprises with the determination of the share of equity for the difficult conditions of production and economic activity. The aim of the research is to analyze the financial condition of industrial companies and develop recommendations to overcome the crisis.

The relevance of the research. In an unstable economy, the probability of crisis phenomena even in powerful industrial companies and their further cessation of activity is particularly high. Therefore, it is necessary first to prevent a significant deterioration in the financial condition of a particular enterprise through comprehensive monitoring. Assuming, however, the identification and impossibility of avoiding a crisis in order to prevent potential bankruptcy, the primary priority is to develop a system and mechanism for crisis management and effective subsequent implementation of the developed measures in a separate enterprise.

Research methods: quantitative and qualitative data analysis, comparison and measurement, methods of deduction and induction, modelling and forecasting, analysis and synthesis, visual-graphical methods, a combined method of similarity and difference, abstraction. The research also used the models of assessing the probability of bankruptcy for modern industrial companies, in particular, mining enterprises.

Scientific novelty. The paper considers the peculiarities of implementation of anti-crisis programmes at modern mining and processing enterprises with determination of the share of equity in difficult conditions of industrial and economic activity. It was proved that the amount of equity seriously affects the indicators of assessment of the probability of bankruptcy of industrial enterprises according to certain models and also causes their financial condition in the near future. The optimal ratio of borrowed funds to the assets of the balance sheet, the economically grounded amount of working capital and the peculiarities of its formation in conditions of economic instability were determined for mining and processing enterprises, which were investigated.

Analysis of the latest research and the problem statement. The development of models for assessing the probability of bankruptcy and the financial condition of industrial enterprises, as well as crisis management systems was carried out by Altman (1968), Lis (Yelisieva, 2007), Springate (1978), Zaitseva (Yelisieva, 2007). The works of many scientists are devoted to the improvement of the theoretical foundations of the evaluation of these phenomena, in particular, N. Kondratenko (2017), I. Zyatkovsky (2000), O. Yelisieva (2007), O. Temchenko (Temchenko & Kryshtopa, 2017), T. Dołęgowski, S. Hushko and V. Kulishov (2017), A. Klodane, I. Mietule, and I. Beinaroviča–Litvinova (2017), A. Mazaraki (2015) and N. Sagalakova (Mazaraki, 2015). However, modern scientists have not formed a consensus on the formation of the definition of

financial condition. In addition, the problem with most traditional methods is that they do not define how to interpret the results. Therefore, under such conditions, the importance of financial analysis was paid attention to by O. Yelisieva (2007) in assessing the financial condition of the enterprise and anti-crisis measures.

Based on the considered sources, it is possible to draw a conclusion concerning measures of anti-crisis management (Figure 1).

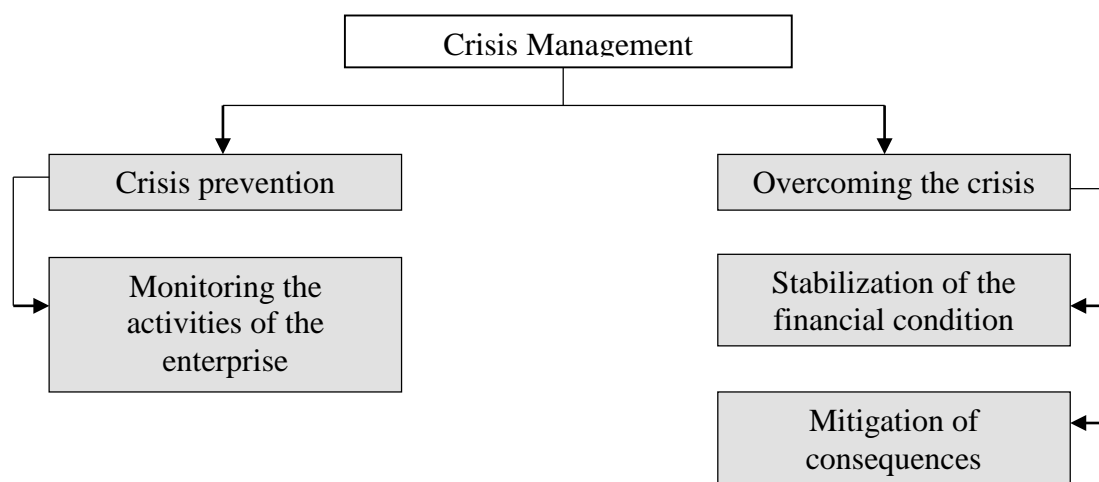


Figure 1 Stages and directions of crisis management (authors` version)

Research results

When assessing the financial condition and probability of bankruptcy of a manufacturing enterprise, it is possible and necessary to use the basic ratios for assessing the financial condition and the model of assessing the probability of bankruptcy of the enterprise. In addition, an important indicator in crisis management is Economic Value Added (hereinafter– EVA).

Before talking about the bankruptcy of the enterprise, it is necessary to assess its financial activities and financial condition. This assessment allows for a number of ratios:

- 1) the financial independence ratio (hereinafter – FIR) shows the share of the company's assets that are covered by equity and characterizes the share of equity in the balance sheet currency. The remaining share of assets is covered by borrowed funds. The FIR is the ratio of equity and reserves to the amount of assets of the enterprise;
- 2) the debt ratio (hereinafter – DR) characterizes the ratio between borrowed and own funds, that is, the share of assets formed as a result of borrowing. The DR is the ratio of the amount of liabilities to the amount of assets;

- 3) the self-financing ratio (hereinafter – SFR) characterizes the ratio of the company's own investment capital (retained earnings, depreciation) to its total needs;
- 4) the ratio of self-working capital (hereinafter – RSWC) characterizes the share of own working capital (net working capital) in current assets;
- 5) the ratio of manoeuvrability (hereinafter – RM) characterizes the share of own working capital in equity. The RM is equal to the ratio of the difference between current assets and current liabilities to the balance sheet currency;
- 6) the ratio of financial stress (hereinafter – RFS) characterizes the share of borrowings in the balance sheet currency, which can be found as the difference between the unit and the financial independence ratio (FIR);
- 7) the ratio of mobile and immobilized assets (hereinafter – RMIA) indicates how much working capital of the enterprise falls on non-current assets. This ratio is the ratio of current assets to non-current assets;
- 8) the ratio of industrial property (hereinafter – RIP) characterizes the share of property in the assets of the enterprise. The ratio is the ratio of the amount of non-current assets and reserves to the balance sheet currency.

If the values of the considered ratios indicate financial instability and the existence of a crisis in the enterprise, then you need to apply models assessing the probability of bankruptcy of industrial enterprises. For industrial mining enterprises of iron ore specialization, it is appropriate to use the following models: the Altman modified five-factor model, the Altman model for private enterprises (Altman, 1968), the Lis model, the Zaitseva six-factor model, the Saifulin and Kadykov model (Yelisieva, 2007) and the Springate model (Springate, 1978).

Having considered the main indicators of financial activity of the enterprise, we apply the ratios of assessment of financial condition to PJSC "Central Iron Ore Enrichment Works" (hereinafter-PJSC "CGOK"), PJSC "Ferrexpo Poltava Mining- Poltava GOK" (hereinafter-PJSC "PGOK") and PJSC "Norther Iron Ore Enrichment Works" (hereinafter-PJSC "NGOK") (Table 1).

By analysing the data obtained in Table 1, we can make a general conclusion about the financial condition of enterprises and sources of financial resources. It is obvious that at most of the enterprises there is financial instability and a financial crisis at PJSC "Poltava GOK".

Table 1 Comparative characteristics of financial stability indicators for PJSC "CGOK", PJSC "PGOK", PJSC "NGOK", 2015-2017 years

(author's calculations based on data from Annual Financial Reports of PJSC "Central Iron Ore Enrichment Works" (2015.-2017); Annual Financial Reports of PJSC "Ferrexpo Poltava Mining - Poltava GOK" (2015.-2017; Annual Financial Reports of PJSC "Northern Iron Ore Enrichment Works" (2015.-2017))

Ratio	PJSC "CGOK"			PJSC "PGOK"			PJSC "NGOK"		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
FIR	0.844	0.473	0.501	-0.041	-0.039	0.14	0.81	0.79	0.5
DR	0.156	0.527	0.499	1.04	1.03	0.86	0.19	0.21	0.5
SFR	5.39	1.115	1.004	0.96	0.96	1.166	5.23	4.73	2.02
RSWC	0.77	-0.03	0.09	-1.26	-0.95	-0.58	0.52	0.57	0.19
RM	0.59	0.05	0.11	-0.53	-0.47	-0.28	0.87	0.34	0.16
RFS	0.156	0.527	0.499	1.53	1.47	1.28	0.19	0.21	0.5
RMIA	2.265	1.058	1.219	0.85	1.137	1.184	1.656	0.98	1.58
RIP	0.335	0.514	0.483	0.74	0.70	0.76	0.62	0.53	0.41

The share of the equity capital of enterprises in the structure of financial resources is relatively small. Industrial enterprises have certain features of the formation of equity. Given the value of the ratio of property for production purposes, it is obvious that enterprises have attracted additional funds to create a powerful material resources base. Thus, the ratio of equity to liabilities indicates financial instability. However, by lending businesses are trying to overcome the problems in the material security sector. For industrial enterprises and mining enterprises in particular, the issue of a strong raw material base is particularly important. However, despite the potential to overcome financial instability in the future, the company may go bankrupt due to changes in the market situation. Such a change may lead to a situation where the amount of operating expenses and financial expenses exceeds the financial result of the company. The long-term impact of this factor will certainly lead to bankruptcy.

Table 1 uses the ratio of self-working capital. This indicator reflects the optimal ratio of equity to current assets. The calculation formula is as follows (Azitov, 2015):

$$RSWC = \frac{E - Anon}{Ac}, \quad (1)$$

where RSWC – ratio of self-working capital,
 E – equity,
 Anon – non-current assets,
 Ac – current assets.

Thus, enterprises need to focus on the formation of equity, through which you can increase the amount of non-current and current assets. Sources of equity formation of industrial enterprises can be invested capital, conversion of liabilities (for example, conversion of bonds into shares), as well as due to the increase in the value of assets associated with an increase in debt to creditors (for example, revaluation of non-current assets), retained earnings (Gomez, 2015).

For the analysis of expediency of introduction of anti-crisis programmes in the considered mining and processing enterprises, it is necessary to carry out an assessment of potential of each enterprise for which the indicators given in the following table will be calculated (Table 2).

As a result of the analysis and assessment of the potential of enterprises (see Table 2), it became obvious that PJSC "NGOK" was the closest to the normative values. The enterprise with the worst values of financial indicators of managing was PJSC "PGOK".

Table 2 Comparative analysis of indicators to assess the potential of PJSC "CGOK", PJSC "PGOK", PJSC "NGOK", 2015-2017 years

(author's calculations based on data from Annual Financial Reports of PJSC "Central Iron Ore Enrichment Works" (2015.-2017); Annual Financial Reports of PJSC "Ferrexpo Poltava Mining - Poltava GOK" (2015.-2017; Annual Financial Reports of PJSC "Northern Iron Ore Enrichment Works" (2015.-2017))

PJSC "CGOK"			PJSC "PGOK"			PJSC "NGOK"		
2015	2016	2017	2015	2016	2017	2015	2016	2017
Absolute liquidity ratio								
0.46	0.04	0.07	0.017	0.05	0.012	0.005	0.01	0.003
Term liquidity ratio								
6.57	1.04	1.18	0.26	0.3	0.3	2.99	3.06	1.31
Current liquidity ratio								
6.86	1.1	1.25	0.46	0.53	0.66	3.14	3.19	1.36
Asset turnover ratio (resource return)								
0.93	0.71	0.8	0.81	0.83	0.92	0.43	0.49	0.92
The ratio of stability of economic growth								
0.12	-0.443	0.22	6.77	-1.06	-0.49	0.03	0.17	-0.16
Return on assets								
0.098	0.22	0.2	-0.32	-0.002	0.19	-0.04	0.12	0.31

To determine the financial condition, the indicator of Economic Value Added (EVA) is used (Table 3).

From the review of Table 3, it was found out that in 2016 there was a crisis at PJSC "PGOK" and PJSC "NGOK" with the subsequent improvement of the situation. As for PJSC "CGOK", in 2015 there was a financial crisis with certain trends of improvement in the future financial years.

Table 3 Comparative analysis of the values of EVA for PJSC "CGOK", PJSC "PGOK", PJSC "NGOK", 2015-2017 years

(author's calculations based on data from Annual Financial Reports of PJSC "Central Iron Ore Enrichment Works" (2015.-2017); Annual Financial Reports of PJSC "Ferrexpo Poltava Mining - Poltava GOK" (2015.-2017; Annual Financial Reports of PJSC "Northern Iron Ore Enrichment Works" (2015.-2017))

	PJSC "CGOK "	PJSC "PGOK"	PJSC "NGOK"
EVA ₂₀₁₅	-86175.88379	-6978662.613	6782.780572
EVA ₂₀₁₆	704592.3585	-40421.42247	-433572.5732
EVA ₂₀₁₇	772442.559	3011881.596	2861723.31

As a result of the assessment of the financial condition of enterprises, it is necessary to assess the probability of bankruptcy of these enterprises. To do this, we use the above-mentioned models of bankruptcy assessment (Table 4).

Table 4 Values of indicators of bankruptcy models for PJSC "CGOK", PJSC "PGOK", PJSC "NGOK"

(author's calculations based on data from Annual Financial Reports of PJSC "Central Iron Ore Enrichment Works" (2015.-2017); Annual Financial Reports of PJSC "Ferrexpo Poltava Mining - Poltava GOK" (2015.-2017; Annual Financial Reports of PJSC "Northern Iron Ore Enrichment Works" (2015.-2017))

<i>Model</i>	<i>The value of the index model</i>			<i>Normative value</i>
	PJSC "CGOK"	PJSC "PGOK"	PJSC "NGOK"	
Altman modified five-factor model	1.6	0.8	1.31	Z>2.9 – financial stability zone, 1.8<Z<2.9 – zone of uncertainty
Altman model for private enterprises	1.94	1.42	1.62	Z>2.9 – financial stability zone, 1.23<Z<2.9 –zone of uncertainty
Lis model	0.047	0.033	0.07	Z> 0.037
Zaitseva six-factor model	18.9	1.98	60.17	1.57+
Saifulin and Kadykov model	0.86	0.38	1.035	Z> 1
Springate model	1.34	0.85	1.16	Z> 0.862

According to Table 4, there is a high probability of bankruptcy, according to most of the models, for the enterprises under consideration.

Having found out that there is a high risk of bankruptcy at the enterprises, we will make a forecast for the near future. To do this, we apply the Altman seven-

factor model (Altman, 1993). The forecast accuracy of this model is 70% for the period of 3-5 years. The results of calculations are given in Table 5.

When carrying out a financial analysis and forecasting bankruptcy, it is necessary to take a critical approach to almost any estimate. However, the low value of the Z-score should be taken as a signal and indicator of potential danger. In this case, an in-depth analysis of the reasons for the decline in this indicator is necessary.

The negative value of the model for PJSC "PGOK" is caused by the negative value of working capital, which indicates a deep financial crisis. Recommendations on working capital formation are given in the paragraph Conclusions and suggestions.

Table 5 Comparison of the values of the Altman seven-factor model for PJSC "CGOK", PJSC "PGOK", PJSC "NGOK", 2017

(author's calculations based on data from Annual Financial Reports of PJSC "Central Iron Ore Enrichment Works" (2015.-2017); Annual Financial Reports of PJSC "Ferrexpo Poltava Mining - Poltava GOK" (2015.-2017; Annual Financial Reports of PJSC "Northern Iron Ore Enrichment Works" (2015.-2017, Altman, 1993)

<i>Enterprise name</i>	<i>The value of model</i>
PJSC "Central GOK"	6.76
PJSC "Poltava GOK"	-5.6
PJSC "Northern GOK"	7.09

With the data of Table 5, it is obvious that the deepest crisis and the greatest probability of bankruptcy is observed for PJSC "PGOK", the best financial condition is at PJSC "CGOK". Among the studied enterprises, the most stable is PJSC "NGOK", the value of which is the highest.

Conclusions and suggestions

As a result of the analysis, it can be concluded about the difficult financial condition and high probability of bankruptcy of industrial enterprises of the iron ore sector of Ukraine. According to the forecast based on the five-factor model of Altman, it is obvious that enterprises need to implement crisis management. The authors have developed a number of recommendations that can help businesses overcome the financial crisis.

To restore solvency, the company can sell part of the real estate, increase the authorized capital by issuing additional shares.

The next direction of improving the financial performance of the enterprise is to ensure the acceleration of the turnover of working capital of the enterprise, which will release funds from circulation, as well as increase the amount of

revenue and profit. The acceleration of turnover can be achieved by increasing the level of labour productivity, more complete use of production facilities of the enterprise, labour and material resources, improving the organization of logistics in order to ensure uninterrupted production of the necessary material resources and reduce the time spent on raising capital in stocks, accelerate the process of shipment of products and registration of settlement documents; reducing the time spent on collecting accounts receivable, increasing the level of marketing research aimed at accelerating the promotion of goods from manufacturers to consumers, the formation of the correct pricing policy, the organization of effective advertising.

The main ways to accelerate capital turnover:

- 1) reducing the duration of the production cycle due to the intensification of production (the use of new technologies, mechanization and automation of production processes, increasing productivity, more complete use of production facilities, labour and material resources, etc.);
- 2) improving the organization of logistics in order to ensure uninterrupted production of the necessary material resources and reduce the time spent on raising capital in stocks;
- 3) acceleration of the process of shipment of products and registration of settlement documents;
- 4) reducing the time spent on collecting receivables.

Adaptation and use of the proposed approach to the assessment of the financial condition and the probability of bankruptcy of modern enterprises in the context of the implementation of the mechanism of crisis management are appropriate for similar research on other enterprises of Central and Eastern Europe, commodity iron products, which are represented in the international market.

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INNOVATION IN A PRODUCER GROUP FOCUSED ON MILK PRODUCTION OF THE SILESIA PROVINCE

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Abstract. *The aim of the work was to analyse the level of innovation in the group of milk producers and production efficiency. The work covered its scope with the producer group established in 2010, which brings together six producers of cow's milk. The farms are run based on a conventional production system. The source data used in the analysis covers the years 2010-2017. The analysis covered the number of implemented innovations, the type of innovation and the level of expenditures borne by producers for introducing the innovations. Based on the results obtained, the relative benefits achieved by the producer group resulting from the introduction of innovative solutions were determined.*

Keywords: *agricultural production, innovations producer groups.*

Introduction

Agriculture and rural areas play an important role in achieving the objectives contained in the Europe 2020 document, which includes a specific long-term programme of socio-economic growth of the European Union (European Commission, 2016). The programme has three interrelated priority areas such as: introduction of sustainable development, smart growth and social inclusion. At the same time, within it, a great emphasis was placed on promoting innovation. The introduction of innovative solutions in the agricultural sector is necessary for the sustainable development of agriculture and the achievement of food safety (Gródek-Szostak, Szelaż-Sikora, Sikora, & Korenko, 2017; Kuboń & Krasnodębski, 2010). In addition, along with the strong growth in global demand for food, there is a need to increase the volume of production produced by farmers.

In the Polish agriculture, the majority of farms are small economic entities, most often managed by natural persons, in which the owner's and the family's own work have the largest share in the total structure of work inputs. These are farms, the income of which is too small to be the sole source of income for members of the farm. This means that the owners of this type of farms do not have free capital from income generated by agricultural production. The effect of this is the lack of funds for the implementation of innovative solutions. The situation is different in the case of large farms, the income from which makes it possible to invest fixed assets or to introduce ways of acting defined as carriers of innovation (Niemiec, Mudryk, Sikora, Szeląg-Sikora, & Komorowska, 2018; Sikora, Niemiec, & Szeląg-Sikora, 2018; Szeląg-Sikora & Rorat, 2018).

The aim of the work was to analyse the level of innovation in the group of milk producers and production efficiency. The work covered its scope with the producer group established in 2010, which brings together six producers of cow's milk. The farms are run based on a conventional production system. The source data used in the analysis covers the years 2010-2017.

Work methodology

The tests carried out to obtain information were made by using the interview method. Members of the producer group surveyed received an interview questionnaire in which they were asked to provide answers on innovations introduced to affiliated farms from 2010 to 2017. In addition, the research was supplemented with data enabling detailed characterization of the producer group in terms of production efficiency. The work assumes that the innovation is all the changes that occurred for the first time in the producer group in the analysed period, regardless of whether they were new (Gródek-Szostak, Szeląg-Sikora, Sikora, & Korenko, 2017; Carmen, Muñoz-Bullónv, Sanchez-Bueno, & Ricart, 2018; Zasada, 2011).

Direct surplus from plant / animal production (PLN thousand·ha⁻¹AL). It is the value of production that has been achieved from one hectare of crop or from one livestock per year. This value is reduced by direct costs that have been incurred to produce this production and at the same time increased by the amount of subsidies received from the European Union funds for plant products, land or livestock (Szeląg-Sikora, Niemiec, & Sikora, 2016).

Innovation in group for agricultural

Joining groups for agriculture has become a leading source of innovation (Carmen, Muñoz-Bullónv, Sanchez-Bueno, & Ricart, 2018; Szeląg-Sikora, Niemiec, Sikora, & Chowaniak, 2017). At the end of the twentieth century, the

mere official assumption or joining a working producer group was treated as a social innovation. Currently, the level of innovation of a group or organization is demonstrated above all by the quantity and scope of implemented technological and non-technological innovations (Kuboń, Sporysz, & Kocira, 2017). In accordance with the European Union's policy, innovations have always laid foundations for the development and operation of both business entities and public organizations. In order to increase the innovativeness of the EU and create a single innovation market, European Innovation Partnerships have been established - EIP (European Innovation Partnerships), which are based on cooperation of many public and social entities as well as private entities. The introduction of innovations on Polish farms has therefore become necessary due to EU requirements regarding adaptation of state agriculture to EU standards and principles of functioning in a competitive European market (European Commission, 2016). This applies not only to the implementation of product innovations but also to the organizational process and marketing (Downey, 1996; Kuboń & Olech, 2018). The variety of activities affects the situation that they usually go beyond the possibilities of individual farms; therefore, to implement them, it is important to establish cooperation between various entities both in agribusiness and beyond (Bechev, 2004; Kuboń, Sikora, Olech, & Szeląg-Sikora, 2018; Yook, Choi, & Suresh, 2018). Glasbergen (2018) argued that agricultural innovations are all emerging new ideas, concepts and ideas, the creation of which consequently affects the improvement of production processes, work carried out around the farm and household, and all kinds of machines that facilitate the work or increase its effectiveness. Innovations in the agricultural sector can be divided into two types. The first type of novelty in agriculture is simple innovations, which include, for example, the purchase of individual machines or tools. Most often, the implementation of simple innovations does not require the use of many different means of production, other treatments, additional calculations and development of projects. The introduction of the second type of activity, i.e. the so-called composite innovation, is a process requiring a more comprehensive operation in these areas. An example of this type of innovation is the introduction of a new crop for the first time on the farm. The complexity of such innovations is connected with forcing the farmer to apply new agrotechniques, and often to purchase new equipment for growing and harvesting this plant. However, this type of innovation has a greater impact on improving the conditions in which a farmer manages and operates the farm (Carmen, Muñoz-Bullónv, Sanchez-Bueno, & Ricart, 2018; Yook, Choi, & Suresh, 2018).

According to the Central Statistical Office, animal production is considered a process during which plant products are processed into animal products. Bovine production, which includes milk and beef livestock, is in a dominant position in animal livestock production. In the years 2000-2010 its share in total commodity

production was at the level of about 43% and showed a slight upward trend (Sikora et al., 2017). After Poland's accession to the European Union, the requirements for milk producers were tightened. These exacerbations were primarily related to the standards of obtaining milk and animal welfare. In 2004, about 737 thousand farms kept cows, while the total number of cows was 2.8 million. Due to the need to adapt to EU standards, the rate of concentration of dairy cattle stock has accelerated after 2002. In order to meet the sanitary and veterinary standards, the farmers had to modernize the production facilities, which brought high costs. As a result, some farms gave up milk production. After Poland's accession to the EU, the process of concentration and intensification of milk production began in Poland (Szeląg-Sikora, Niemiec, & Sikora, 2016; Zasada, 2011). The number of farms that maintained 1-2 cows, i.e. mainly the farms that produced milk for their own needs, decreased by as much as 57%.

Results and discussion

The surveyed group of agricultural producers obtained an entry in the Register of Agricultural Producers Groups of the Silesian Province in the product group: cow's milk on March 4, 2010. Farms in the producer group include the farms specialized in the production of cow's milk. It consists of six dairy farmers who together have about 290 dairy cows. During the year, about 1,700,000 litres of milk are obtained from all farms. On all the farms that belonged to the studied group, a similar degree of organization was observed, for both animal and vegetable production, which constitutes animal nutrition. In the entire production group, the largest area of agricultural land was taken up by grassland (meadows and pastures) and arable land, where the dominant crops for fodder for bred cattle were fodder plants (maize cultivated for green fodder) and cereals with a predominance of winter wheat. The average area of the holding in the group was about 57 ha of agricultural land and the stock of livestock 1.11 LSU·ha⁻¹ UR (LSU - Livestock Unit).

Table 1 presents the balance of direct surplus. The average value of plant and animal gross production in the producer group was 10.41 in (PLN thousand·ha⁻¹AL). It should be noted that the average value of animal production was 8.07 (PLN thousand·ha⁻¹AL), which was more than three times higher than the average value achieved by the group from crop production, 2.38 (PLN thousand·ha⁻¹AL).

Table 1 Balance of direct surplus for the producer group under study (PLN thousand·ha⁻¹AL) (own study)

Specification	Parameter			
	min.	average	max	standard deviation
Final gross production				
plant	2.14	2.38	2.64	0.19
animal	6.53	8.07	9.84	1.74
Total	8.74	10.41	12.48	1.95
Direct expenditure on production				
plant	0.18	0.41	0.71	0.20
animal	1.46	2.26	2.80	0.49
Total	3.43	4.23	4.95	0.49
Direct surplus from production				
plant	1.78	1.97	2.24	0.19
animal	4.88	6.07	7.51	1.07
Total	4.94	6.22	7.78	1.20

When comparing all the farms included in the group, it can be noticed that the gross final production value in the case of crop production was less diverse than the value of animal production. The total gross output was affected, among others, by way of feeding dairy cattle (silage, fodder) and expenditures incurred additionally to improve the milk yield of cows. In both groups of expenditures, the highest costs were generated by animal feed, apart from which the purchase outlays were also added costs incurred for treatment and insemination, on average amounting to approximately PLN 2.26 thousand ha⁻¹ AL. The maximum expenditures borne by the producer group amounted to PLN 4.95 thousand ha⁻¹ of AL, of which over 56% were costs resulting from animal production.

The average value of direct surplus obtained from crop production and direct payments per 1 ha AL in the producer group was at a similar level for all the farms included in its composition. It did not exceed 2.24 (PLN thousand·ha⁻¹AL). Similarly, as in the case of gross final production, slight deviations between the surplus values obtained on the farms resulted from small differences in the type of crops cultivated.

Innovations implemented on the farms belonging to the studied producer group have been divided into three areas. These are innovations introduced in the plant production field, livestock production and innovations related to the economics and organization of the farms.

Table 2 The level of introduced innovations in the studied producer group in the years 2010-2017 (own study)

Singular	Specification	Innovation	
		Number	(%)
1.	Plant production		
1.1.	New fertilizers	6	23.1
1.2.	New species and varieties	6	23.1
1.3.	New plant protection products	4	15.4
1.4.	New machines and tools	9	34.6
1.5.	New comprehensive technologies	1	3.8
1.6.	Total plant production	26	100
2.	Animal production		
2.1.	Increasing the livestock population	7	6.9
2.2.	Purchase of breeding animals	74	73.3
2.3.	New content feeds and mineral supplements	5	5.0
2.4.	Maintenance of own feed	2	2.0
2.5.	Purchase of a milking machine or cooler	3	3.0
2.6.	New hygiene products	3	3.0
2.7.	Modernization of livestock rooms	7	6.9
2.8.	Total animal production	101	100
3.	Economics and organization		
3.1.	Increased area of farms	3	21.4
3.2.	Change in the cropping pattern	3	21.4
3.3.	Using loans	5	35.7
3.4.	Introduction of new accounting and calculation systems	1	7.1
3.5.	Introduction of new computer technology	2	14.3
3.6.	Total economics and organization	14	100

For the first time, fertilizers, new species and plant varieties, plant protection products, new machines and tools as well as complex technologies that were not previously used were considered as the innovations applied in crop production in the studied producer group. The analysed results (Table 2) show that the largest number of implemented innovations concerns the use of new equipment (machines, tools). The farmers, despite the high prices of machines, most often decided to increase the common machine fleet, realizing that the use of new machines and equipment in the production process would significantly improve the conditions of functioning and management of the whole group. The farmers eagerly benefited from financial support, EU subsidies earmarked for this purpose. Being associated in the producer group, they also had greater opportunities to negotiate advantageous prices compared with farmers running individual farms. From 2010 to 2017, in plant production, more than 34% of innovations referred to the emergence of a producer group with new machines and

devices, while only 3.8% were innovations for which we recognize the use of new comprehensive technologies. Looking at the structure of plant production innovations, it should be noted that over 23% of the changes in the producer group under study concerned new varieties and plant species as well as the use of new fertilizers. The surveyed agricultural producers declared that they were trying to exchange seeds regularly and use better quality fertilizers. Relatively often, their farms also supplied new plant protection products (15.4%). It can be concluded that this behaviour of farmers was dictated by the desire to achieve the highest possible yields of high quality, which in turn was to translate into the achieved profit. The next section (Table 2) in which innovations appeared was animal production. In this case, they concerned: increasing the livestock population, buying new breeding animals, buying new concentrated feeds and mineral additions from the outside, maintenance of their own feed, purchase of milking machines, coolers, hygiene products and the modernization of livestock rooms. Among those listed, the purchase of breeding arts was significantly different. Innovation of this kind accounted for as much as 73.3% of all introduced as part of animal production, while the increase in livestock constituted only 6.9% of innovation. On this basis, it should be concluded that the farmers did not significantly increase the number of holdings held by their farms, because it would generate too high costs. In order to achieve better breeding results, the surveyed members of the producer group declared that they modernized the livestock rooms at their disposal, but the analysis shows that this change accounted for less than 7% of all innovations in animal production. The changes in animal nutrition were also at a similar level (5%). In economics and organization, the most common changes related to the use of loans (35.7%). The farmers more willingly than before decided to take out a loan and invest the borrowed money into the development of the farm (purchase, machinery, land, modernization). Acting in the producer group, they received more favourable terms on the credit agreement than acting alone. Decisions on taking out loans were also often made due to the possibility of receiving subsidies for interest on loans taken out for trading purposes on general terms. The data provided indicate that 14.3% of innovations related to the organization of agriculture were the introduction of new computer techniques. Computers in the studied producer group are used to keep records of economic and financial operations. New computer techniques are used by the group members in the planning process of technological, economic and financial processes taking place on their farms. The results presented in Table 2 indicate that the most innovations in the analysed period were introduced in the animal production field (71.6%), followed by crop production (18.4%) and the least in the field of economics and organization (9.9%).

Conclusions

The analysed farms involved in dairy cattle breeding in order to conduct dairy production were associated in a producer group to strengthen their position in the market, improve organizational and production processes taking place in individual farms and increase the chances of receiving support from EU funds. The obtained results confirmed that membership in the producer group was profitable for the owners of farms, among others thanks to easier access to innovation. Agricultural innovations introduced in the producer group were first of all new technical solutions that allowed its members to more rationally manage the resources belonging to the group and to reduce the amount of used means of production, applying solutions that do not cause adverse effects on the environment. In the producer group under study, new activities were also implemented, through which biological progress on the farms was increased. Such innovations included: introducing new plant varieties for cultivation, yielding higher yields and being more resistant to diseases, pests and unfavourable natural conditions. Implementation of breeding progress on the farms took place through the purchase of new, more efficient dairy cows, as well as activities aimed at increasing the level of animal welfare, among others modernization of livestock rooms. The number of introduced changes since establishing cooperation among the owners of the surveyed farms by creating a producer group and the impact of changes in the functioning and organization of these agricultural enterprises indicated in the above work allows recognizing innovation as one of the measures of the efficiency of institutional structures in agriculture. In addition to entrepreneurship, willingness to cooperate, a sense of community, possessing agro technical knowledge and knowledge of markets and risk, innovation is a feature that gives an opportunity to create a market system tailored to the expectations of both producers and consumers.

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CIRCULAR ECONOMY DRIVEN INNOVATIONS WITHIN BUSINESS MODELS OF RURAL SMEs

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Abstract. *The competitiveness of rural SMEs is low due to economic inefficiency and the lack of innovations. The main challenges faced by rural SMEs are the limited scale, the distance from larger sales markets, R&D and business support institutions, and the lack of innovative spirit. The circular and bio-economies are shaping the rural SMEs towards the environmentally friendly and eco-efficient production, the minimization of the generation of waste and less use of natural resources. This potential of the adoption of new business models within rural SMEs is not fully observed.*

The aim of this research is to analyse the opportunities of rural SMEs in introducing the innovative business models driven by the circular economy. This research explores the innovative business models of rural SMEs that transform the environmental challenges in business opportunities and keep a balance with the growing consumption needs. The results of the research are of both theoretical and practical value, providing recommendations for facilitation of innovative business models within rural SMEs. The research methods: desk research, statistical analysis, a grounded theory approach, case study, primary data gathering through seven focus groups with more than 200 stakeholders from six European countries.

Keywords: *business model, circular economy, innovation, rural SMEs*

Introduction

SMEs play a crucial role in the development of rural areas. Besides economic development, SMEs ensure social protection through jobs and income for local people, preserve the environment and the local heritage by using local resources and safeguarding historical production and farming traditions (Tambovceva & Tereshina, 2018; Uvarova & Vitola, 2019).

External drivers force changes in the business environment and the development of the “new rural economy” with more knowledge intensive, globally – oriented, diversified and innovative SMEs. However, rural SMEs face several obstacles, for instance, the small local market and the long distance from

larger development centres, low productivity, insufficient capacity, the lack of spirit for and knowledge of innovations. This hinders opportunities of rural SMEs to increase the competitiveness (Fieldsend, 2013; Tarasovych, 2017; Smallbone, Baldock, & North, 2003; Smallbone & North, 1999; Uvarova & Vitola, 2019).

The circular economy encourages reuse of the materials and extension of the life of products, which contradicts to needs of the linear economy in increasing consumption and production volume. This contradiction inquires the circular economy on what kind of business model innovations can be applied in order to ensure economically justified business performance. Recently, these discussions have appeared on the agenda of politicians, researchers and entrepreneurs, which highlight the importance and urgency of this topic.

The aim of this research is to analyse the opportunities of rural SMEs in introducing business model innovations driven by the circular economy. This paper addresses the following research questions: How the circular economy (CE) impacts business model innovations? What are the challenges and opportunities of rural SMEs to introduce CE-driven business model innovations?

The results of the research are of theoretical and practical value. The novelty of this paper lies in the integration of three scientific disciplines: the CE, business model innovations (BMI) and rural SMEs. Our research shows that rural SMEs lack the understanding of and knowledge about business models (BM) and BMI. This will allow generation of practical recommendations for further promotion of BMI of rural SMEs in line with CE principles and identification of the support necessary. Due to the limitations of this paper, the concepts of sustainability, eco-innovations, rural, bio- and green economies are not described, but still have a significant relation and could be observed in future research discussions.

This paper is structured as follows. The next section presents theoretical concepts regarding the CE, BM, BMI and circular BM. The third section explains the methods and data used. The fourth section presents the results of the research and the fifth section concludes.

Literature review

The theoretical framework includes the interrelation of the concepts and theories of CE, BM and BMI. These elements are explored through a MECO-screening matrix and “BM Canvas” tools, and further united within the circular business model concept visualised within the circular business model canvas.

As regards the CE concept, it responds to the increasing consumption, the decreasing value and the life cycle of products resulting in generation more and more waste. Ellen MacArthur Foundation (2015) defines a CE as “the economy that is restorative and regenerative by design and aims to keep products, components, and materials at their highest utility and value at all times,

distinguishing between technical and biological cycles” and believes that this concept is applicable at any level and on any scale.

In the wider context, the CE advocates sustainability and ecological principles as well as treats the climate change issues. In the narrower context, the CE challenges the increasing production and consumption needs by promoting solutions to the reduction of waste and more efficient use of natural resources in business (Ceptureanu, 2018; Jorgensen & Remmen, 2018; Oncioiu et al., 2018; Costea-Dunarintu, 2016; Bonciu, 2014).

Researchers (Jorgensen & Remmen, 2018) has summarised three most common approaches proposed by the CE: 1) the extension of the product life and production of more durable products that are not losing their technical and emotional values, 2) the recycling, repair and reuse of the resources, 3) reduction of the dependence on fossil fuels by increasing the resource efficiency and narrowing the use of resources, the use of renewable resources.

Drucker identified questions that conceptualise the business strategy and performance efficiency, putting the grounds for further discussions about the business model (Drucker, 1954). Later Magretta (2002) described the business model (BM) concept as a hypothesis of the working definition on how the company offers the value to the particular customer segment and generates revenues from it.

The BM got more significant attention of the researchers and practitioners after introduction of the new methodology “BM Canvas”. The “BM Canvas” defined nine most important BM elements: the value proposition, customer segments, customer relationships, sales or product delivery channels, revenue streams, key activities, key partnerships, key resources and the cost structure (Osterwalder & Pigneur, 2010).

Currently researchers widen, clarify and simplify the definition of BM and its elements. Summarising other researchers (Keane, Cormican, & Sheahan, 2018; Teece, 2018; Foss & Saebi, 2018), the BM can be defined as a simple story of how a company creates, delivers and captures the value to customers, and transforms it into revenue and profit.

Researchers do not have a common opinion about the definition of business model innovation (BMI). Based on other researches, the definition of BMI can be expressed in three ways: 1) the transformation from one BM to another, 2) the creation of a completely new BM or 3) the modification of at least two BM elements (Foss & Saebi, 2018; Geissdoerfer, Vladimirova, & Evans, 2018; Teece, 2010). Other researchers underline multidimensional aspects of BMI by levels of the industry, the enterprise and revenue streams (Giesen, Riddleberger, Christner, & Bell, 2010).

While the CE is challenging global ecological and climate change problems, entrepreneurs explore the narrow context of the CE concept on how to set up

economically and technically feasible business models. Previous researches highlight that the CE increases the efficiency by reduction of costs and potential risks, improves the quality of products and enables new approaches for optimised management and tracking of the production and logistics. This results in the increase of the competitiveness of SMEs. (Jorgensen & Remmen, 2018; Costea-Dunarintu, 2016).

The Ellen MacArthur Foundation (2015) envisages that current technological advancement provides wider opportunities for the development of new scalable CE business models allowing better collaboration, networking and knowledge sharing, tracking of materials, production and logistic chains, increasing the use of renewable energy.

Researchers (Jorgensen & Remmen, 2018) suggest the use of the MECO-screening matrix method, which allows more detailed analyses of the production and logistics through four components to identify the possibilities of introducing renewable energy and use of recycled resources, decreasing the use of chemicals and improving other CE aspects. The MECO-screening matrix can be useful for the critical analyses of at least four elements of the “BM Canvas” – key activities, key partners, resources and cost structure identifying the possible CE features for BMI. The other elements of the BM open discussion about the value proposition and value chain in order to extend the use of materials and products without losing their technical and emotional values (Jorgensen & Remmen, 2018, Oncioiu et al., 2018, Lewandowski, 2016).

As the next step, based on the previous literature review, we have developed an updated circular business model canvas (CBMC), assuming actual trends and tendencies of the CE.

Table 1 Circular Business Model Canvas (created by the authors based on Jorgensen & Remmen, 2018; Lewandowski, 2016; Ellen MacArthur Foundation, 2015)

Key partners	Key activities	Value proposition	Customer relationship	Customer segments
-Sharing of assets and resources (Q&R ¹) -Remove unnecessary waste in the supply chain	-Re-cycle and sort out biochemical from waste -Remove waste in production -Cleaning and refurbishment of used products -Re-think the need of packaging or use bio-plastic	-Functionality instead of ownership -Longer durability of the product as a higher quality element -Promote CE principles on packaging	-Co-design sessions with users to encourage more CE aspects and practices (Q&R ²) -Re-cycling of packaging for new relationship building -Discounts or larger loyalty to customers returning back used products	-More loyal customers -New customer segments, e.g.: Re-used product fans, “Zero

- Introduce a visible tracking system of suppliers	Key resources -Re-use products or their components -Prolong durability through maintenance -Remove chemicals in production	-Possibility to buy re-used products with minor defects, but keeping main quality elements -Product take-back and repair services	Channels -Virtualise sales and usage of products -Access to products without need to purchase a physical product (in line with functionality instead of ownership)	wasters”, “Less is more” believers, healthy lifestyle followers, etc.
Cost structure -Improve efficiency or reduce costs -Reduce losses from risks (environmental pollution, use of chemicals, etc.)		Revenue streams -Turning waste into new products and new revenue streams -New revenue from services instead of products		

Q&R¹ – the sharing economy

Q&R² – the experiencing economy

Methodology

The research was done in seven diverse regions of six EU Member States - Lombardy and Molise regions in Italy, Pardubice region in the Czech Republic, Zemgale region in Latvia, Gorenjska region in Slovenia, Nyugat-Dunantul region in Hungary and Stara Zagora region in Bulgaria. These regions represent Northern, Central and Southern Europe. There are represented less developed, transitional and more developed regions based on the classification of the EU Cohesion Policy. According to the EU urban-rural typology, most of the regions are predominantly rural with the rural population at least 50% of all inhabitants, three regions are classified as intermediate with the rural population between 20% and 50% and in one region (Lombardy), some exceptional parts (e.g. Milano, Bergamo Como etc.) are classified as predominantly urban regions with the rural population falling below 20%. These regions represent diverse economic structures – agricultural regions with a high share of primary (agrarian) production, regions with a significant share of secondary (manufacturing) production and some regions with a highly developed tertiary (service) sector.

The data collection methods used within this research were desk research and case studies. The primary data were gathered through seven focus group discussion meetings of represented regions. The focus group discussion meetings involved in total 215 persons, on average 31 person per each region. The focus group participants was selected based on the diversity principle: 1) representing different fields according to the statistical classification of NACE codes, 2) ensuring multi-level governance – at the local, regional and national levels, and 3) representing stakeholders from the government, business, academic, research

and non-governmental sectors. The focus group discussions were used in order to discuss wider views of diverse stakeholders on the existing bottlenecks, opportunities and further needs of rural SMEs in the adoption of CE BMIs. All focus group discussion meetings followed one common facilitation approach in order to gather unified and comparable data, views and information from each represented region.

Statistical analysis was used for processing the quantitative and statistical data. The case studies ensured more exhaustive analyses of the best practices which are presented in this paper. A grounded theory approach with axial and selecting coding principles was used for the qualitative data analysis of the results of all focus group discussion meetings. The research of this paper is based on the theoretical framework designed by the authors of this paper and described above.

Research results

The research results show that rural SMEs lack the knowledge about the BM, its elements and BMI related aspects. However, through the case studies we found good examples of BMIs in some rural SMEs. These BMIs were introduced as the response solutions to risks threatening the business, for instance, the lack of a workforce, the decrease of a number of customers in local customer segments, the decrease of productivity and profitability. This may lead to an optimistic belief that the CE serves as an important driver for BMIs in rural SMEs if appropriately facilitated by some support initiatives.

The experimental observations of the focus group meetings show that just 2 out of 7 regions constituting approximately 30 % of all the stakeholders were able to give feedback and score the most possible BMIs that potentially could be introduced within rural SMEs. The development of the diverse cooperation forms of rural SMEs is one of the most recognised potential BMIs. This may be related to the historical traditions of farmers or agricultural cooperatives. In relation to the CE principles, stakeholders may assume the sharing of resources or assets, the collaboration within supply chains and in R&D (research and development) activities.

The stakeholders of the focus group meetings felt more comfortable talking about innovative production technologies and the diversification of products, as they had some background knowledge on that. It is positively that the stakeholders were the most familiar with the new technologies having relation to CE principles, in particular, organic farming and biotechnologies, the nonchemical crop resistance system, precision farming, selective breeding and feeding. The stakeholders were less familiar with the concept of “functional use” within the value proposition, for instance, functional food.

However, the experimental observations of the focus group meetings show that rural SMEs were in more favour of traditional business and farming approaches, in general avoiding innovations and new technologies. The stakeholders agreed that they would prefer continuing the historical production and farming traditions, and just critical and major external threats might force them to adopt new innovations and technologies. Rural SMEs lacked the dynamic capabilities that are an essential internal driver for innovations. We already described this aspect in more detail in the previous paper (Uvarova & Vitola, 2019).

Furthermore, the focus group meetings highlighted other factors influencing the readiness towards innovations. The rural entrepreneurs of younger generations (Q&R: the generation Y and Z) born and grown up within the digital era were more open towards new and smart technologies, for instance, adoption of the IoT (Q&R: Internet of Things) and smart metering systems, while older generations rejected these possibilities.

It is positively that the rural SMEs, especially agricultural producers, felt comfortable with the idea of recycling, the use of renewable resources and the decrease of chemicals in the production process. However, the stakeholders were in the common agreement that such CE BMIs require large investments, but the rural SMEs lacked the credibility to attract financing. More targeted public support would stimulate the adoption of such CE BMIs.

The rural SMEs were ready for the introduction of traceability systems within the logistics and production processes in order to improve their visibility, efficiency and productivity. The rural SMEs did not recognise the relation of the traceability system with the possibility to develop the CE driven value chain, the value proposition and the customer relationship. This might be the consequence of the lack of knowledge about the BM.

There were best practices identified through the case studies that can encourage other rural SMEs in adopting CE BMI. The stakeholders of the focus group meetings and interviews stressed the need of the networking and knowledge sharing among the rural SMEs in order to facilitate the adoption of CE driven BMI.

The farm “Ligo” (Latvia) deals with grain production, biogas production and greenhouses. This entrepreneur started with grain production, but forced by significant external threats related to unstable prices and the demand of the grain stock market, took the decision about the diversification of the business with a higher value added. This farm has built a biogas station, which produces heat for the greenhouses. The planted corn is the main biomass resource for the biogas station. Other alternatives to the biomass resource are tested, for instance, specific beets with higher energy intensity, allowing increasing the efficiency and the productivity. This farm is planting cucumbers in greenhouses. A BMI,

distinguishing it from competitors, is that key products of the greenhouses are seeds of cucumbers that are sold to a global multinational agro-production company. Moreover, to minimise the dependence on one global B2B customer, this farm is planting spinach and asparagus for other market segments. In the nearest future, this farm is planning introduction of drone technologies for the smart metering and monitoring of plants and self-driving tractors and other machinery (LA.lv, 2017).

The company Sybimar LLC (Finland) introduced a “zero” waste production cycle. This enterprise combines the production where nutrients, water, waste, heat and CO₂ are recycled back to energy and food. Sybimar produces bioenergy, which ensures heat for a fish farm and a greenhouse. The fish farm uses indoor pools and the closed cycle water recirculation system. The leftover water of the fish farm is further used in the greenhouse for planting herbs. Interestingly that the architectural design of the fish farm and the greenhouse was made in order to minimise the water and heat flows in between both. The fish farm is grounded in the basement under the greenhouse. Moreover, Sybimar LLC produces the biofuel from the leftovers and waste of fish and biomass. Most of the fish breeding processes on the fish farm are controlled and managed by an on-line management and traceability system. This system improves the efficiency, as it requires fewer employees and allows the management processes on-line from the distance in 24/7 mode (Sybimar, [s.a.]).

The Italian company OCA SFORZESCA is operating in the food production industry, in particular, it produces meat products of geese. This company has introduced a number of technological innovations. Moreover, it has introduced new approaches and practices forming BMI.

This company has developed an integrated on-line production chain and the product traceability system. This system allows tracing the production process starting from the delivery of resources from the particular farm through to bringing the product to the customer. This increases the value proposition and provides new possibilities to build the relationship with more loyal customers. All the processes can be managed and controlled from distance using digital technologies. The traditional handmade food production is combined with a modern food quality management system. Other CE BMI applied, mainly focusing on the increase and capture of the value proposition, are as follows: 1) all the products are certified, as 100% goose meat and meat products are handmade, 2) the origin certification and the traceability system shows the area where the geese were reared and fed properly with corn and soy, 3) the nutritional analysis certification for the low content of saturated fat and salt. To extend the international sales market, this company is producing halal meat products for the specific customer segment of the United Arab Emirates.

Conclusions

Responding to the environmental, ecological and climate change challenges, the CE has become significantly important by revolutionary shaping the society, the environment and the business with conflicting needs and benefits. The society and businesses are willing to increase the number of products produced and consumed, which generates more waste. The CE changes the perception by increasing the value and the durability of the products, thereby contradicting the traditional business approach within the linear economy. CE BMIs are seeking for economically feasible and environmentally beneficial business solutions that were explored within this paper.

This paper has an essential socio economic context, as we explored the opportunities of the adoption of CE BMI in rural SMEs that often ensure the social protection of local inhabitants in rural areas. The introduction of the CE principles within the society and businesses is the priority within the agenda of politicians, researchers and practitioners. This concept has a widespread trend in the sectors.

This paper constitutes cross sectoral research through combining the theoretical concepts of different disciplines – the CE, BM, BMI and the competitiveness of rural SMEs.

The research results are multi-dimensional, stretching towards different government levels. This paper identified fields of support needed for successful adoption of CE BMIs within rural SMEs, which can be best ensured through effective multi-level governance mechanisms. Referring to the rural and urban dimensions, the research results highlight serious underdeveloped internal and external factors putting unfavourable conditions for the rural SMEs, compared with their urban peers.

The main concerns identified in this research are a lack of knowledge and understanding of the BM and CE BMIs, the reluctant interest, a lack of dynamic capabilities and motivation for the adoption of innovations within rural SMEs. The weak credibility and financial capacity is a hindering factor for the attraction of investments for adoption of new technologies.

Rural SMEs feel comfortable with the traditional business or farming approach and lack motivation to introduce CE principles and CE BMIs, which highlights an important further challenge.

This research highlights the fields that need further investigation, for instance, the creation, delivery and capturing of the CE driven value proposition, as well as the interrelation between CE BMIs and sustainability, eco-innovation, bio- and green economies.

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ФОРМИРОВАНИЕ И ОЦЕНКА ДОБАВЛЕННОЙ СТОИМОСТИ ИННОВАЦИОННОЙ ПРОДУКЦИИ В СФЕРЕ БИОМЕДИЦИНЫ

Formation and Evaluation of Value Added of Innovative Products in the Field of Biomedicine

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Abstract. *The main indicator for the high rate of economic development of the country is the alignment of national advanced technologies in the global value chain.*

The novelty of the research study is to develop a set of indicators for assessing the value added of innovation based on the specific structure of products in the field of biomedical technologies. The aim of the research study is to summarize the scientific developments in the field of formation of value added of innovative products, to identify its specific structure in the field of biomedicine and to develop a set of indicators for its evaluation.

The research uses methods of scientific search and generalization of literature, legislation, statistical analysis, monitoring, the dialectical method, analysis, synthesis, comparison, abstraction, specification.

The paper reveals the specific structure of products in the field of biomedical technologies, which is based on innovative flows to bring research projects in the field of biomedicine to the final product. The proposed in the paper set of indicators for assessing the value added of innovation will form the basis for a detailed analysis of the feasibility of starting the development of an innovative product, determining the efficiency and profitability of commercialization of biomedicine products.

Keywords: *biomedicine, evaluation, innovation, innovative products, value added.*

Введение

Introduction

Одно из приоритетных направлений стратегии инновационного развития экономики России связано с ростом удельного веса валовой

добавленной стоимости инновационного сектора до 17-20%. При этом повышается роль биомедицины на мировом, государственном и региональном уровнях, а также на уровне населения и отдельно взятой личности. Значимость исследований в данной области также подтверждает размер затрат на биомедицину – более 40% от всей величины инвестиций в России (Княгинин & Липецкая, 2017). Инвестиции в инновации биомедицинского характера составляют более 60% всего рынка биотехнологий. По прогнозу Российской Венчурной Компании рынок биотехнологий в России к 2020 году должен превысить 500 млрд долл., по оценкам зарубежных экспертов (Deloitte, 2016) в 2019 году объем рынка биотехнологий приблизится к 445 млрд долл.

Ориентация на инновационный путь развития требует не только эффективных затрат, но и понимание процесса формирования стоимости инноваций на стадиях разработки и реализации продукта. В этих условиях высокую актуальность приобретают исследования характеристик рентабельности инноваций в сфере биомедицинских технологий, экономического механизма формирования и оценки добавленной стоимости инновационной продукции, позволяющих определять вклад организации в процесс создания стоимости инновации в сфере биомедицины и оценить значимость того или иного продукта для населения, государства, мирового сообщества.

Цель исследования состоит в обобщении научных разработок в области формирования добавленной стоимости инновационной продукции, выявлении ее специфической структуры в сфере биомедицины и разработке комплекса показателей для ее оценки.

В ходе исследования использованы методы научного поиска и обобщения литературы, законодательства, статистических данных, а также мониторинг, диалектический метод, анализ, синтез, сравнение, абстрагирование, конкретизация.

Обзор литературы *Literature review*

Процесс формирования и оценки добавленной стоимости на сегодняшний день рассмотрен недостаточно подробно, в рамках существующих исследований не учтена специфика инновационного продукта.

Значимым аспектом в исследованиях многих ученых при формировании специфической структуры продукции в сфере биомедицинских технологий является вопрос взаимодействия всех заинтересованных субъектов: государства, бизнес-сообщества, населения

(Каркищенко, 2006), а также вопросы правового регулирования биомедицинских технологий (Караваева & Кровцов, 2005; Старовойтова, 2006; Шабров, Шадрин, & Минюк, 2016).

В большей части исследования ученых связаны с анализом влияния высокотехнологичной медицины на развитие экономики (Киселев, 2016; Кузина & Харитонов, 2017), с формированием валовой добавленной стоимости продукции (Пешина & Авдеев, 2013), с исследованием инновации с точки зрения социологической категории (Кройтор, 2008).

Некоторые зарубежные исследователи рассматривают формирование добавленной стоимости исключительно с позиции налогообложения. Так, O. Oldman, A. Schenk считают, что учет показателя добавленной стоимости необходим для государства в рамках расчета налогооблагаемой базы по налогу на добавленную стоимость (Schenk & Oldman, 2007).

В. Jørgensen и М. Messner обосновывают необходимость учета добавленной стоимости предприятиями инновационного характера с момента появления идеи о производстве продукта и до ее коммерциализации (Jørgensen & Messner, 2010).

Отечественные ученые также уделяют внимание расчету и учету показателя добавленной стоимости в разрезе ее элементов (Алимова, 2014; Сорокина, 2013), выделению этапам создания инновационной продукции (Васильев, 2012; Крутиков, Дорожкина, & Зайцев, 2013; Максимов, 2013; Poroova, Maslova, Korostelkina, Dedkova, & Maslov, 2018), что даст возможность осуществлять планирование и контроль основных финансово-хозяйственных показателей деятельности и центров ответственности организации.

И.А. Маслова, Н.К. Рожкова, М.Н. Курылева, Н.Н. Максимов, Н.Л. Маренков считают дискуссионным вопрос определения стоимости инновационной продукции в связи с отсутствием нормативно-правового регулирования методологии расчета показателя в инновационной сфере. При этом они акцентируют на необходимость разработки методов оценки и учета затратных и стоимостных показателей по этапам создания инновационных продуктов (Маслова, 2010; Рожкова & Курылева, 2014; Максимов, 2013; Маренков, 2006).

Анализ существующих исследований в области оценки добавленной стоимости инновационного продукта показал, что в основном ученые рассматривают показатели оценки инновационной деятельности или инновационного проекта, выделяют показатели оценки инновационного потенциала. Так, А.В. Ильдяков (Ильдяков, 2011) обосновывает систему показателей оценки инновационной деятельности предприятия по нескольким сферам: финансы, клиенты, бизнес-процессы, потенциал. Практически отсутствуют исследования оценки добавленной стоимости по

этапам создания инновационного продукта и с учетом особенностей продукции в сфере биомедицинских технологий, что повышает значимость таких разработок.

Таким образом, для целей развития инновационного сектора в России, в первую очередь биомедицины, необходимо учитывать особенности формирования добавленной стоимости при определении комплекса показателей ее оценки с учетом специфической структуры продукции в сфере биомедицинских технологий.

Методология *Methodology*

Исследование базируется на применении комплекса общенаучных методов, использование которых позволило:

- провести анализ существующих подходов к формированию добавленной стоимости инновационной продукции, выделить элементы, которые включаются на каждом этапе ее формирования, характеризуют вклад в процесс создания стоимости инновации в сфере биомедицинских технологий;
- предложить комплекс показателей оценки добавленной стоимости инновации, который позволит сформировать основу для проведения детального анализа целесообразности начала разработки инновационного продукта, определения эффективности и рентабельности коммерциализации продукции биомедицины.

Результаты исследования *Research result*

Формирование добавленной стоимости в сфере биомедицинских технологий происходит по этапам создания и коммерциализации инновационного продукта или технологии. В рамках исследования показатель добавленной стоимости определяем методом сложения, который состоит в суммировании всех элементов затрат, увеличивающих ее размер, потенциальных налогов и нормы прибыли. Оценка добавленной стоимости инноваций должна осуществляться с учетом ее поэлементного состава.

Важность оценки добавленной стоимости определена интересами заинтересованных групп: субъект бизнеса стремится максимизировать свою прибыль, работники – увеличить заработную плату, государство – аккумулировать налоговые поступления в бюджет. Поэтому рост добавленной стоимости призван удовлетворить интересы обозначенных

сторон. Прибыль как один из элементов добавленной стоимости имеет прямую зависимость с ее величиной. Государство изымает часть прибыли предприятия непосредственно с помощью налога на прибыль организаций, а часть добавленной стоимости – с помощью налога на добавленную стоимость. В отношении инновационной продукции биомедицины дополнительно заинтересовано государство и население в рамках достижения социально значимых эффектов от внедрения инновации.

На рисунке 1 представлена структура добавленной стоимости инновационного биомедицинского лекарственного препарата с учетом специфики отрасли, а также выделенных этапов создания и коммерциализации инновации.

По каждому элементу отражен удельный вес затрат в общей структуре добавленной стоимости. Величина добавленной стоимости колеблется в пределах 80-90% созданной стоимости инновации.

Для определения значимости и актуальности того или иного инновационного продукта биомедицины, а также степени необходимости его скорейшей разработки и внедрения предлагаем авторские показатели оценки добавленной стоимости инновации в сфере биомедицинских технологий.

Предлагаемый комплекс показателей разделяем на три укрупненные группы:

- показатели оценки социального эффекта, они оценивают значимость исследований, разработок в биомедицине для государства, бизнес-сообщества и косвенно населения;
- показатели финансового характера, они оценивают рентабельность и прибыльность разработки, производства и коммерциализации инновационных продуктов и технологий в сфере биомедицинских технологий;
- показатели экономической целесообразности, позволяют оценить соотношение созданной добавленной стоимости в отношении показателей: стоимости, себестоимости, прибыли и т.д. для целей анализа и отбора наиболее наукоемких и научнозначимых исследований биомедицины.

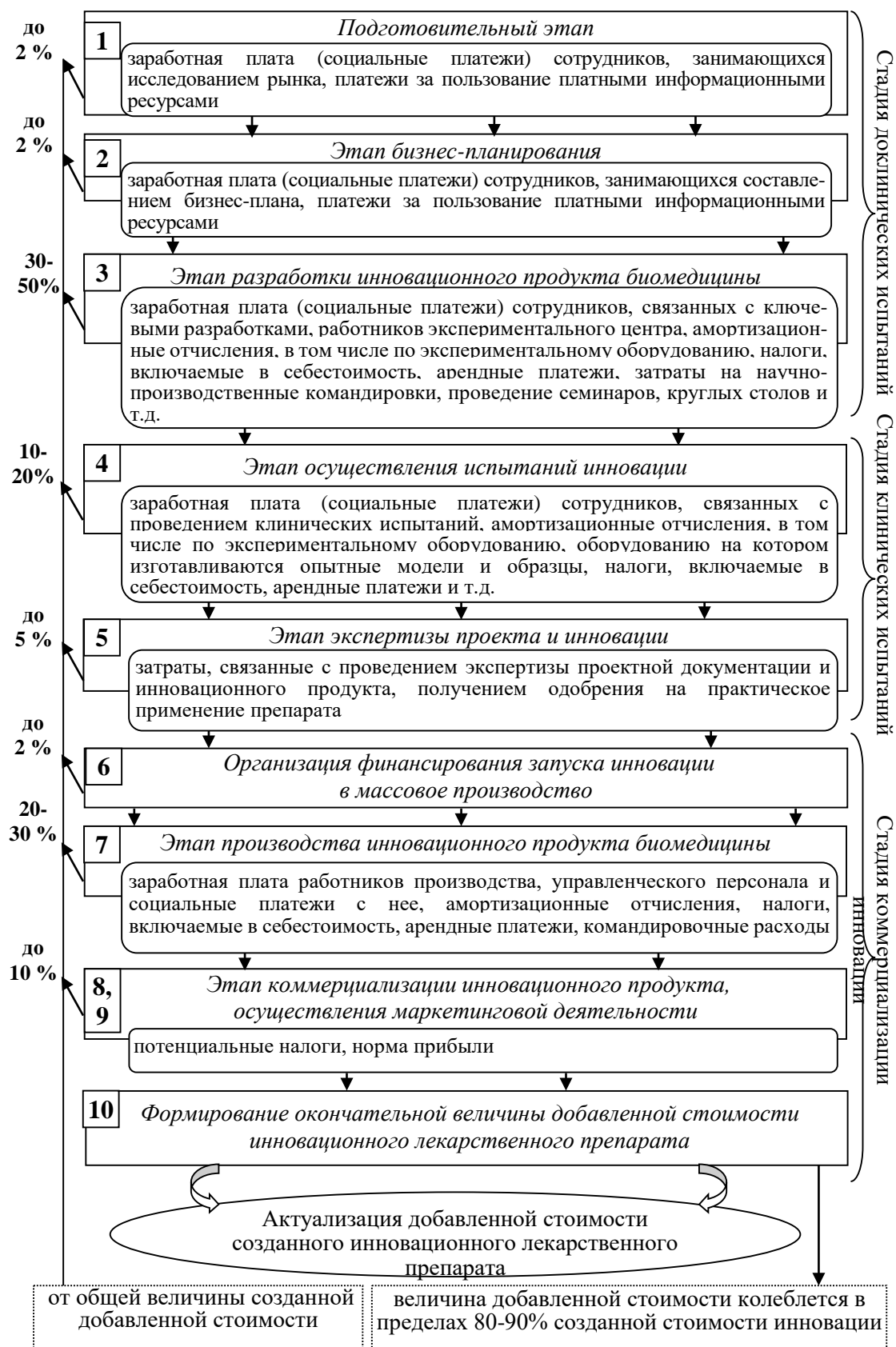


Рисунок 1. Структура добавленной стоимости инновационного биомедицинского лекарственного препарата (разработано авторами)

Figure 1 Value-added structure of an innovative biomedical drug (developed by the authors)

К группе показателей оценки социального эффекта предлагаем относить:

1. Показатель оценки биомедицинской инновационности (соотношение величины добавленной стоимости инновационной продукции биомедицины к общей величине созданной добавленной стоимости инноваций).
2. Показатель оценки инновационности экономики в сфере биомедицины (соотношение величины добавленной стоимости инновационной продукции биомедицины к общей величине созданной добавленной стоимости всех видов продуктов).
3. Показатель оценки трансформации экономики (соотношение величины добавленной стоимости инновационной продукции биомедицины к общей величине созданной добавленной стоимости в сырьевом секторе экономики).
4. Показатель оценки размера общих инвестиций (соотношение значения созданной в биомедицине добавленной стоимости с общей величиной инвестиций).
5. Показатель оценки величины государственных инвестиций (соотношение значения созданной в биомедицине добавленной стоимости с величиной государственных инвестиций в сферу биомедицинских технологий).
6. Показатель оценки величины инвестиций бизнес-сообщества (соотношение значения созданной в биомедицине добавленной стоимости с величиной инвестиций в сферу биомедицинских технологий российского бизнес-сообщества).
7. Показатель оценки величины зарубежных инвестиций (соотношение значения созданной в биомедицине добавленной стоимости с величиной зарубежных инвестиций в сферу российских биомедицинских технологий).
8. Показатель оценки количества созданных рабочих мест (соотношение величины добавленной стоимости, созданной работниками сферы инновационной биомедицины с размером добавленной стоимости созданной в государстве).

К группе показателей финансового характера, используемых для измерения полученных финансовых результатов от разработки и последующего внедрения инновации, предлагаем относить:

1. Показатель эффективности разработки (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с размером затрат на стадии разработки инновационного продукта).

2. Показатель эффективности производства (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с размером производственных затрат).
3. Показатель эффективности реализации (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с размером выручки от реализации инновационного продукта).
4. Показатель эффективности совокупного капитала (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с размером совокупного капитала).
5. Показатель эффективности собственного капитала (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с размером собственного капитала).

К группе показателей экономической целесообразности, позволяющих оценить в стоимостном выражении все виды результатов и затрат, полученных в рамках инновационной деятельности, предлагаем относить:

1. Показатель затратной экономической целесообразности инновации (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с общим размером себестоимости инновационного продукта в биомедицине).
2. Показатель стоимостной экономической целесообразности инновации (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с общим размером стоимости инновационного продукта в биомедицине).
3. Показатель финансово-экономической целесообразности инновации (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с общим размером прибыли от реализации (внедрения) инновационного продукта в биомедицине).
4. Показатель экономико-трудовой целесообразности инновации (соотношение величины созданной добавленной стоимости в сфере биомедицинских технологий с общим размером трудовых затрат по разработке, производству и коммерциализации инновационного продукта биомедицины).

Разработанные показатели должны рассчитываться с учетом позиций всех заинтересованных участников процесса создания добавленной стоимости инновации на основе специфической структуры производства продукции в сфере биомедицины: на уровне государства и субъектов РФ, бизнес-структур, населения.

Выводы *Conclusion*

Предложенный комплекс показателей оценки добавленной стоимости инновации, основанный на специфической структуре продукции в сфере биомедицинских технологий, в перспективе сформирует фундамент для проведения детального анализа необходимости разработки конкретных инновационных продуктов, дающих возможность улучшать совокупность показателей демографической статистики, социально-экономического развития регионов и государства в целом. Кроме того, система данных показателей может быть использована инновационными предприятиями как для оценки целесообразности начала разработки того или иного инновационного продукта или технологии, так и для определения эффективности и рентабельности коммерциализации продукции биомедицины.

Summary

One of the priorities of the strategy of innovative development of the Russian economy is associated with the growth of the share of gross value added of the innovation sector to 17-20%. Orientation to the innovative way of development requires not only effective costs, but also an understanding of the process of formation of the cost of innovation at the stages of product development and implementation.

The formation of added value in the field of biomedicine occurs at the stages of creation and commercialization of an innovative product or technology. In the framework of the research study, the value added indicator is determined by the method of addition, which consists in the summation of all cost elements that increase its size, potential taxes and profit margins. An evaluation of the value added of an innovation should be carried out taking into account its element composition.

The research study presents the structure of the value added of an innovative biomedical drug, taking into account the specifics of the industry, as well as the selected stages of creation and commercialization of the innovation.

The importance and relevance of an innovative product of biomedicine, as well as the degree of need for its early development and implementation of the proposed indicators for assessing the value added of the innovation in the field of biomedical technologies was determined.

The set of indicators includes three enlarged groups:

- indicators of social impact assessment, they assess the importance of research and development in biomedicine for the state, the business community and indirectly the population;
- financial indicators, they assess the profitability and profitability of the development, production and commercialization of innovative products and technologies in the field of biomedical technologies;

- indicators of economic feasibility allow us to assess the ratio of value added in relation to indicators: cost, cost, profit, etc. for the analysis and selection of the most science-intensive and research-relevant biomedicine.

The proposed set of indicators for assessing the value added of an innovation, based on the specific structure of products in the field of biomedical technologies, will form the basis for a detailed analysis of the need to develop specific innovative products that make it possible to improve the set of indicators of demographic statistics, socio-economic development of regions and the state as a whole.

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SOCIAL FINANCE TAXONOMY IN TRANSITION TOWARDS A MORE SUSTAINABLE ECONOMY

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Abstract. *The successful development of a sustainable economy and society in together with the Sustainable Development Goals (SDG-2030) requires comprehensive and coordinated efforts of governments, businesses and civil society in order to establish unified and clear rules and regulations for economic activity. In order to reach this goal the European Union begun the development of EU sustainability taxonomy, which is to ensure an equal understanding of the content of activities of enterprises, projects and investments that meet sustainability criteria. So as to realize the potential of the market for social investments and loans, unification of approaches for understanding the main concepts of the social financing process is necessary.*

The purpose of the study is to develop proposals for the classification of subjects and objects of the subsystem of social finance consistent with sustainability taxonomy. The research applies methods of induction and deduction, scientific abstraction of theoretical generalization and comparative analysis while studying definitions, best practices of social investment and for developing the classification of social impact investments and social enterprises. The article provides coherent analysis of the formation of social entrepreneurship and finance in Ukraine. Based on the results of the study, the most relevant classification features of social enterprises and investments were developed and recommendations were made for integrating social finance taxonomy into sustainability taxonomy. The results of the research are of both theoretical and practical value.

Keywords: *social finance, social impact investing, taxonomy.*

Introduction

The world is changing as swiftly as it has never before and moving in the direction of creating the economy and society on the principles of sustainable development.

The adoption of the coordinated Program of Action by 2030 in 2015 at the 70th session of the UN General Assembly, which identifies 17 goals of sustainable development of economy and society (SDG-2030), was the impetus for further approval of the sustainable development imperative. The achievement of these goals requires coordinated efforts of Governments, businesses and civil society to establish unified and clear rules and regulations for conducting fruitful economic activity. In order to reach this goal the European Union adopted the Action Plan for Sustainable Development Financing and began developing EU sustainability taxonomy (European Commission, 2018). Its purpose is to ensure equal understanding of the content of companies activities, projects and investments that meet the criteria of sustainability. It gives opportunity to investors and creditors to have a clear idea of the investment strategies choice adequate to determine sustainable investments. Such measures lead to further transformation of the financial system together with the requirements of sustainable development and provide better financing for sustainability projects and companies.

However, the publications over the last three years have shown a gradual shift in trend. The essence of this trend is that more and more academics and practitioners (Wilson, 2016; Dagers & Nicholls, 2016; OXFAM, 2017; PRI, 2018) are paying attention to the rapid development of such a component of sustainable finance as social finance. Social impact investment market is rapidly growing in size and prevalence in various areas of activity (PRI, 2018; Eurosif, 2018). It is argued that it is impact investment, which is best suited to the needs of SDG-2030 (Eurosif, 2017). This allows us to express supposition that the strategies of investing in a positive impact just turn into mainstream (PRI, 2018), while strategies for responsible and sustainable investing are already regarded as traditional - "must do".

The purpose of the study is to develop proposals for the classification of subjects and objects of the subsystem of social finance so as to be consistent with sustainability taxonomy. The study applies methods of induction and deduction, scientific abstraction of theoretical generalization and comparative analysis while studying definitions, best practices of social investment and for developing the classification of social impact investments and social enterprises. The paper is structured as follows. The first section provides review of basic theoretical approaches to understanding the essence of the fundamental concepts. The second section observes the author's conceptual approach to social finance taxonomy and proposes the classification of social impact investments and social enterprises. The third section examines the state of social entrepreneurship and its financing in Ukraine.

The Concept of Social Finance - A Critical Appraisal

The term “social finance” is generally used in the context of the provision of funds by organizations targeted at solving socially significant problems by financial market participants. In simplified terms, social finance is understood as an allocation of capital aimed at obtaining social and environmental returns, as well as financial returns (Nicholls et al., 2015). According to a research from Charity Bank “social finance is an approach to lending or investing that deliberately looks to create social benefits ... Social lenders and social investors can be distinguished by social issues they take into account in their investment or loan decisions” (Charity Bank, 2017). Private banking institutions specialize in social banking whose general mission is defined in following way: “providing financial and banking services aimed at creating a positive contribution for developing all the people’s potential today and in future” (Institute for social banking, 2018). As F. Relano emphasizes, their main goal is “not to maximize profits but to strengthen a positive impact on society” (Relano, 2015). Apparently, social finance incorporates a list of socially-oriented financial activities such as social investment and social banking.

Despite the fact that positive investment has become mainstream, there is still no unified concept for social financing (Evenet & Richter, 2011). The study of academic and practice-oriented publications covering the problem revealed that the most common approach is to recognize the terms "impact investment", "social investment" or "social impact investment" as similar concepts (Evenett, & Richter, 2011; OECD, 2015, Eurosif, 2018) and interpret them in the same way as “social finance” implying provision of capital to organizations with the explicit expectation of measurable social as well as financial returns (OECD, 2015; Big Society Capital, 2016; GIIN, 2017). The Global Sustainable Investment Alliance (GSIA, 2016) broadens the concept and defines “impact investing as targeted investments, typically made in private markets, aimed at solving social or environmental problems. Community investing, whereby capital is specifically directed to traditionally underserved individuals or communities, is included in this category, as is finance that is provided to businesses with an explicit social or environmental purpose” (GSIA, 2016). There is a similar definition in the materials provided by the Center for Social and Sustainable Products and it looks as follows: investing in impact seeks to find market solutions to overcome problems that may affect society and the environment (CSSP, 2014).

According to Bridges Ventures (Bridges Ventures, 2015) and Wilson K.E. (Wilson, 2016) social impact investments can be implemented in different countries, sectors and asset classes. Moreover, it is emphasized that social investments, especially in the environmental field, can provide a sufficient level

of profitability (GIIN, 2018). Several types of investors frequently provide diverse forms of capital (Wilson, 2016; GIIN, 2017). Social investment provides such capital as loans, underwriting, or equity.

A. Nicholls, R. Paton, & J. Emerson (Nicholls et al., 2015) interpret the meaning of "social finance" in a broader context than its prevailing understanding as social investment, and considers the social investment market to be a part of the social finance market. The authors proceed from the following considerations: on the one hand, it is hybrid or blended finance, which combines philanthropic motives and commercial interest, capital of the public and private sectors, equity and debt capital, structured according to different methods and sources, etc.; on the other hand, social finance is more focused on beneficiaries than on owners, and the creation of blended value (environmental / social and economic ones) is a criterion for providing capital to recipient companies.

Despite the fact that the motives for social impact investments are the creation of both social and environmental impact, together with financial returns, it is obvious that the notions of social investment and the impact investment should be distinguished. Thus, the impact investment is believed to come from the desire of investors to maintain their capital and receive financial returns along with the creation of positive effects, while social investments are based first of all on intentions to gain positive impact ("Impact first" approach) (OXFAM, 2017; Bridges Fund Management, 2015). A similar view of the essence of social investment is expressed by J. Dagers & A. Nicholls, who point out that the criterion for differentiating investment strategies on impact investing and social investing is that impact investing focuses on the behavior and motivation of investors, while social investing is more targeted at capital recipients, who are primarily motivated to create social or environmental impacts (Dagers & Nicholls, 2016). At the same time, a number of publications suggest that only social enterprises and social sector organizations (SSOs) should be classified as social finance in order to maximize their potential for social benefits (Evenett & Richter, 2011; Dagers & Nicholls, 2016) and those who solve the social problems of bottom-of-the-pyramid populations (Wilson, 2016) from emerging markets.

Impact investments can be made by various methods, for example, through social models that create blended value and are small in size, by using a traditional model aligned with the theory of change (PRI, 2018; Wilson, 2016). Otherwise, they can focus on large or medium-sized companies that create products or services in accordance with sustainable development, and thus provide benefits for society and the environment. Therefore, there is an urgent necessity to systematize and classify different approaches to social finance and impact investments in order to stimulate positive changes in the economics and society.

A study of the conceptual approach of social finance taxonomy for sustainable development

Taxonomy as a component of systematics involves the definition and grouping of certain features of objects and phenomena. In this context, social finance taxonomy requires the development of a classification of both the objects of the financing process, mainly social investments, and entities such as enterprises and organizations that fall under the indications of social entrepreneurship. This gives opportunity for a clear interpretation of all components of the social finance system and facilitates investors' decision making process concerning their investment preferences and values. According European Commission's Action Plan "Financing Sustainable Growth" establishing a common language requires appropriation of the EU classification by market participants through its integration into process guidelines and assessment (product and process) standards (European Commission, 2018).

Impact investment covers a wide range of social issues, aspects, industries, areas and challenges both in developed and developing markets, which are divided into two categories.

1. Sustainable development projects, such as access to drinking water, renewable energy, food, agriculture and forestry, etc. This category is heavily focused on developing markets.
2. Social integration, for example, affordable housing, health care, education, finance, financing of social enterprises, etc. (UNDP, 2016; PRI, 2018).

A recent study (Bridges Fund Management, 2015; PRI, 2018) reveals that the aggregate impact investments are conventionally divided into two approaches, which differ in certain ways: the first one is the approach of "mainstream (thematic) impact investment", which is carried out in various spheres of activity on the subject of sustainable development in order to obtain financial return on capital, along with the creation of a positive social / environmental impact; the second one is the approach of "social (impact) investment", which focuses primarily on the creation of positive social / environmental impacts, and only in the second turn on receiving financial income or capital return (Impact First Approach).

As a rule, when taking the first direction for projects, the strategy of thematic impact investing in sustainable development, which is aimed at obtaining financial returns at or above the market level together with a positive social and / or environmental impact, is generally chosen. When choosing finance projects related to social integration, an investment strategy that aims primarily at obtaining a positive social and / or environmental outcome, even at the expense of financial returns (Impact First Approach) is mostly used. The term "social

investment” is frequently applied to indicate this area of investment. It is most often used in European investment practice.

The analysis of publications (Daggers & Nicholls, 2016; OECD, 2015; UNDP, 2016) gave opportunity to highlight common and peculiar features of two approaches to impact investment (Table 1). A common feature for all impact investment is focusing on the long-term investment horizon, creating measurable social and environmental impacts, covering all classes of assets, and others. The distinction between investment approaches includes the following key features: investor motivation (focusing on financial return or positive impact), financing philosophy (results-based financing, outcomes-based approaches, market-based solutions) and benefits regarding expected level of financial return (at the market level, below or above it) and others.

Table 1 Common and peculiar features of impact investing strategies (summarized by the authors based on Daggers & Nicholls, 2016; Evenett & Richter, 2011; OECD, 2015; UNDP, 2016)

<i>Impact investing as a broad approach</i>	
Mainstream impact investment	Social impact investment
<i>Thematic Investing</i>	<i>Impact first Investing</i>
<i>Common features</i>	
1) Explicit expectation of social or environmental impact of investments. 2) Investors are expected to generate social or environmental impacts along with financial returns. 3) Investments are to generate returns that range from below market to risk adjusted market rate. 4) Investors are committed to measuring and reporting on social and environmental impacts. 5) Long-term investment horizon. 6) Investments are made in all types of assets.	
<i>Peculiar features</i>	
1) The thematic impact investments target businesses such as listed equity firms and large privately-owned companies that can have impact at scale and primarily expect to obtain financial return. 2) Investments are to generate returns which range from market to above market rate. 3) They are more attractive to institutional investors and mainstream investors. 4) Market-based solutions, results-based financing.	1) Investment objects are mainly social sector organizations, whose missions are primarily indicated as the creation of social or environmental impacts, regarding financial return only in the second turn. 2) Investments are to generate return of capital or returns that range from below market to market rate. 3) They are more attractive to socially oriented institutions of the financial sector of the economy, which position themselves as social finance. 4) Results-based financing, outcomes-based approaches.

In general, investors differ in their preferences concerning goals and missions, which determines their behavior in the financial market, including the choice of investment strategies. Basing on our research, we proposed a more detailed classification of impact investments according to the common key features that reveal their essence (Table 2). Other characteristics may also be selected to distinguish particular types of impact investments.

Table 2 Classification of impact investments (summarized by the authors based on Dagers & Nicholls, 2016; Evenett & Richter, 2011; OECD, 2015; UNDP, 2016)

№	Classification principle	Types of investments
1.	According to type of assets	Investments cover all classes of investment assets (cash, public equity, fixed income assets, private equity and venture capital funds, etc.)
2.	According to the target direction	Investments targeted at creating social value; ecological value or blended value
3.	According to investing method	Direct and indirect investments
4.	According to legal status of recipient companies	Investments in public, private companies and social sector organizations operating on a commercial basis
4.	According to expectations regarding results	Social and / or environmental impact together with financial returns or priority receiving of social / environmental impact (“Impact first” approach)
5	According to expectations regarding the level of financial return	Capital return higher than market level, at the market level, lower than market level
6.	According to basis of market development	Investments can be made both in developed and emerging markets
7.	According to a possibility of measuring the social / environmental impact	The social and / or environmental effect can be measured directly, that is, what is measurable; the social and / or environmental effect has the nature of impact, and can not be measured directly
8.	According to financial instruments and products	Both traditional (equity, bonds), and specially created hybrid products with characteristics of several tools (charity bonds, debt with the characteristics of equity capital, first losses capital, etc.)

Recipients of social investments are various socially oriented companies, including social enterprises and organizations. The peculiarity of social enterprises can be called the social and / or environmental focus of the mission, which is oriented on solving various social problems. Social enterprises cause social change through market mechanisms. For investment purposes the whole

number of such companies can be classified according to the following features (Table 3).

Table 3 Classification of Social Enterprises (summarized by the authors based on Nicholls et al., 2015; OECD, 2015; UNDP, 2016)

Classification principle	Types of social enterprises
According to direction of investment in positive impact	Enterprises contributing to social integration; those which contribute to solving problems of sustainable development
According to nature of activity	Traditional activities for solving social problems (health care, education, affordable housing, etc.); marginal activities (promoting rehabilitation and socialization of former prisoners, people with special needs, etc.)
According to the stages of the life cycle	Early stage; stage of growth, stage of maturity
According to risk level in achieving investment goals and obtaining financial returns	High, average, low risk level
According to the organizational form adapted for the mission	Social Business, social hybrids (e.g., Benefit corporations (USA), Community Interest Companies (UKs)), market-oriented social organizations (e.g., trading charity)

Each of the chosen classification groups requires its investment approaches and has its own circle of investors, who can also be classified according to the distinguished features. Thus, investors who are motivated to receive financial returns at or above the market value while receiving social and / or environmental benefits are targeted at investing in corporations that run a sustainable, socially viable business and are at the stage of maturity. Correspondingly, such investors are beneficiaries of a variety of socially oriented investment funds involved in sustainable development (for example, Generation IM's Climate Solutions Fund, Triodos Renewables Europe Fund). A part of socially motivated investors who want to invest primarily in creating positive impact will be participants of a variety of social enterprise funds (for example, the Bridges Ventures Social Entrepreneurs Fund, DoH - Social Enterprise Investment Fund (SEIF)). Investors with high expectations of positive impact and low expectations of financial returns can be socially motivated especially by members of social investment funds (for example, the Bridges Ventures Social Impact Bond Fund). Investors ready for high risks and having high financial return expectations are focused on investing in corporations at early stages of development, respectively, selecting venture capital philanthropy funds (for example, Bridges Ventures Sustainable Growth Fund).

Furthermore, the financing of the activities of socially-oriented companies is carried out by a variety of investors who are also oriented towards creating a positive impact, for instance, foundations, angel investors, venture philanthropists, social venture funds, social banks, etc. They can obtain a new alternative investment class with a large potential for growth.

For further development of the social finance taxonomy it is necessary to provide an expanded classification of criteria and attributes for which companies, projects and investments must meet the definition of social (environmental) ones by analogy with the typology of the thematic impacts investments (PRI, 2018). To form such a classification system it is expedient to apply the features of the above investment groups and enterprises.

Social entrepreneurship and impact investing in Ukraine

The emergence of social entrepreneurship in Ukraine has a short history (since the beginning of the 2000s) and very little experience in both functioning and financing. Only over the last five years owing to the active international support of international organizations and projects, the activity of social entrepreneurs and volunteers has intensified, and the term "social entrepreneurship" has entered an academic discourse. The main obstacle is considered to be legal uncertainty of the concept of "social entrepreneurship" and lack of its regulatory and legislative regulation. Besides, as a consequence of the post-Soviet past, Ukrainians have almost lost charity mentality and their philanthropy skills atrophied and have not yet restored as a components of the cultural code of the nation. According to surveys (Corestone Group & GFK Ukraine, 2017), philanthropy in the context of organizations is most often attributed to the support of religious organizations (19%), charity associations and other organizations (8%). Among funding sources for charitable organizations, private donations amount to 39%, donations from international donors provide 33% and donations from businesses count for 17%. In addition, 83% of the charitable organizations have more than one source of funding. Most of them receive donations from private individuals (57%), business donations (37%) and donor funds (37%) (Corestone Group & GFK Ukraine, 2017).

However, in society there is still no comprehension of the nature and possibilities of a social entrepreneurship tool in addressing urgent needs of society and environment and the achievement of the SDG. Thus, according to the survey conducted by respondents (Gusak, 2016), the vast majority of active social enterprises (the sample covered 55 entities) is created for solving social problems (about 70%), such as improving the quality of life of vulnerable groups, developing local communities and providing healthy lifestyle. Environmental goals are not prioritized (less than 30%) and are aimed mostly at

recycling garbage and toxic waste, economical use of resources and development of green tourism. The corresponding surveys revealed that 50% of respondents were the only source of funding for their commercial activities, less than 50% of enterprises received grants, about 25% of the start-up capital had the founder's funds, and 20% of social enterprises had access to credit resources. In order to fulfill their social mission, enterprises allocate from 5 to 100% of net profit, from 20 to 100%, is directed to reinvestment and from 10 to 40% of net profit is used for other purposes (Gusak, 2016).

Financing of social enterprises by financial institutions has not been widely spread, only few certain programs of support from international funds and organizations are known, in particular, the Western NIS Enterprise Fund (WNISEF) Social Investment Program. It is aimed at supporting private enterprises and individual entrepreneurs in order to achieve social and environmental impact in Ukraine through the creation of a mechanism for affordable lending in cooperation with banking institutions (Oschadbank, CredoBank). In particular, in 2016 the loans issued at low interest rates counted for the amount of 69857 USD (5% - 10%) and in 2017 they amounted to 392424 USD. Financed companies have already invested 11220 thousand UAH or 48.98% of the total loans received in social projects (WNISEF, 2017). According to experts, the main drawback for impact-investors in Ukraine is having virtually zero or even negative profitability of socially-transformative projects (Grebennikov, 2017). The reasons that hinder the development of social entrepreneurship and the impact of investment are certain to be lack of legal regulation and incentive programs, including tax; insignificant activity of state bodies and local communities; low awareness of the general public about the essence and possibilities of social entrepreneurship; low standard of living and citizens' inertia, etc.

Conclusion

Recent years are characterized by the fact that sustainable development is considered to be not a threat as it used to be, but a business opportunity. Taking into account the factors of sustainable development, corporate business models are formed and management decisions are made, and social impact investing strategies are gradually being transformed from hype to mainstream. In order to achieve the goals of sustainable development and implementation of the social finance market potential, unification of approaches to understand the basic concepts of the social investment process is required.

According to the study results, the most relevant classification features were identified as follows: 1) social investments are differentiated by type of assets, target orientation, investment method, expectations of priority and level

of results and financial returns, financial instruments and products; 2) social enterprises are classified according to the life cycle, the organizational-legal form, the mission, the risks of its implementation, etc. Possible ways of perfecting the social finance taxonomy, such as Impact Investing Market Map (PRI, 2018), are considered. The creation of a classification of financial instruments, in particular hybrid ones, with a description of their capabilities to meet the problems of sustainable development on its different issues and needs of social enterprises requires separate study.

An assessment of the experience of social entrepreneurship establishment and the impact investments in Ukraine revealed a low level of their development due to a number of reasons.

Summary

The successful development of a sustainable economy and society in together with the Sustainable Development Goals (SDG-2030) requires comprehensive and coordinated efforts of governments, businesses and civil society in order to establish unified and clear rules and regulations for economic activity. In order to reach this goal the European Union begun the development of EU sustainability taxonomy, which is to ensure an equal understanding of the content of activities of enterprises, projects and investments that meet sustainability criteria. Besides, it gives opportunity to investors and creditors to have a clear idea of the investment strategies choice adequate to determine sustainable investment, which, in its turn, results in better financing for sustainable development. Transformation of the financial system in accordance with the requirements of sustainable development affects such an important component as social finance (investment and lending), which has its own characteristics, due to the specifics of each country.

The purpose of the study is to develop proposals for the classification of subjects and objects of the subsystem of social finance so as to be consistent with sustainability taxonomy. Taxonomy as a component of systematics involves the definition and grouping of certain features of objects and phenomena. A common feature for all impact investment is focusing on the long-term investment horizon, creating measurable social and environmental impacts, covering all classes of assets, and others. The distinction between investment approaches includes the following key features: investor motivation (focusing on financial return or positive impact), financing philosophy (results-based financing, outcomes-based approaches, market-based solutions) and benefits regarding expected level of financial return (at the market level, below or above it) and others.

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An assessment of the experience of social entrepreneurship establishment and the impact investments in Ukraine revealed a low level of their development due to a number of reasons. The reasons are certain to be lack of legal regulation and incentive programs, including tax; insignificant activity of state bodies and local communities; low awareness of the general public about the essence and possibilities of social entrepreneurship; low standard of living and citizens' inertia, etc.

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LATVIJAS GLOBĀLĀS KONKURĒTSPĒJAS IZMAIŅU IZPĒTE 2009. – 2019.GADĀ

Research on Changes in the Global Competitiveness Latvia in 2009-2019

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Abstract. *In the era of globalization the term competitiveness has become of essential importance. Each country is showing its interest in it because the results of national economic processes depend on its successful alignment with the international market. The aim of this research is to define the changes in the Latvia's Competitiveness Index in comparison with the Baltic States during the period 2009-2019. To achieve this aim the following methodology was used: scientific inductive and deductive methods, the monographic and the data based method. The research is based on the results of the assessment of the „Global Competitiveness Index” introduced by the World Economic Forum. Regardless of the methodological drawbacks and changes, the GCI states the status of Estonia as an economic leader among the Baltic States. The tendency seen in the last years shows the levelling of the competitiveness of the Baltic States that can have a positive impact on the development of the region in the further period.*

Keywords: *Baltic States, ompetitiveness, Global Competitiveness Index*

Ievads

Introduction

Globalizācijas laikmetā, vārds *konkurētspēja* iegūst arvien būtiskāku nozīmi. Interese par to nav sveša nevienā valstī, jo nacionālās ekonomikas darbības rezultāti ir atkarīgi no tās sekmīgas iekļaušanās starptautiskajā tirgū. Tā rezultātā ir attīstījusies industrija, kas mēģina novērtēt un salīdzināt atsevišķu valstu konkurētspēju. Ir izveidoti konkurētspējas indeksi – kompleksi indikatori, kas aprēķināti izmantojot noteiktus kritērijus un to mērījumus atsevišķās ekonomikās. Tie ļauj ierindot pētījumā iekļauto valsti noteiktā vietā, salīdzinot ar pārējām, un novērtēt tās attīstību noteiktā laika periodā. Atkarībā no ziņojumu rezultātiem un izmantotajiem rādītājiem vietu sadalījums ir saprotams ne tikai ekonomikas jomas speciālistiem, bet arī ar to mazāk saistītiem interesentiem. Tas ir iemesls, kāpēc

šādi reitingi ir guvuši plašu interesi, līdz ar to arī atspoguļojumu masu informācijas līdzekļos.

Lai arī reālo indeksu ietekmi ir grūti novērtēt, populārākie no tiem jebkurā gadījumā rada interesi – tos citē valdības ziņojumos, prezentācijās un masu mēdijos. Sniegumu analizē valsts iekšienē, pamatojoties uz rezultātiem vērtē politiku darbu.

Lietotājiem nereti ir vājš priekšstats par to, ko indekss reāli nozīmē, kāda ir tā aprēķināšanas metodika un kā ir interpretējami rezultāti.

Pētījuma mērķis ir noteikt Latvijas konkurētspējas indeksa izmaiņas Baltijas valstu kontekstā periodā no 2009. līdz 2019. gadam.

Mērķa sasniegšanai izvirzīti šādi uzdevumi:

1. Noteikt konkurētspējas koncepcijas definējumu zinātniskajā literatūrā;
2. Izpētīt viena no zināmākajiem indeksiem “*Globālās konkurētspējas indekss*” (Global Competitiveness Index) aprēķināšanas metodiku;
3. Analizēt Baltijas konkurētspējas indeksa izmaiņas periodā no 2009. līdz 2019. gadam.

Pētījumu metodes. Augstāk formulēto uzdevumu risināšanai izmantotas metodes: monogrāfiskā, zinātniskās indukcijas un dedukcijas metodes, datu grafiskā metode.

Globālās konkurētspējas indeksa aprēķināšanas metodika

The methodology of the computation of the global competitiveness index

Konkurētspējas koncepcija dažbrīd rada diskomfortu, pat nopēlumu daudzu ekonomistu vidū. Būtiskākais iemesls ir konkurētspējas biežais salīdzinājums ar sacensībām, kurā tiek salīdzināti atsevišķi dalībnieki. Šāda salīdzināšana paredz, ka ir ieguvēji un zaudētāji. Konkurētspēja tiek uzlūkota kā sporta sacensības, dalībniekiem sacenšoties ekonomikas disciplīnā. Šāds viedoklis par konkurētspēju ir populārs uzņēmēju vidū. Nespēja konkurēt rada zaudējumus vai pat bankrotu. Šo uzskatu virza arī masu informācijas līdzekļi.

Konkurētspējas nozīme dažādiem cilvēkiem atšķiras. Ir svarīgi noteikt konkurētspējas dažādos līmeņus:

1. darbinieku līmenī;
2. uzņēmumu līmenī;
3. nozares līmenī;
4. nacionālās tautsaimniecības līmenī.

Katrā analīzes līmenī ir dažādi pasākumi konkurētspējas uzlabošanai. Tie atšķiras, bet rezultātā nosaka pašreizējos un nākotnes ekonomiskos panākumus un labklājības pieaugumu atsevišķām nozarēm vai tautām. Akadēmiskajā literatūrā termins *nacionālā konkurētspēja*, tiek izmantots trīs veidos: ražīguma mēraukla, relatīvo izmaksu rādītājs un tirgus daļas īpašās „stratēģiskās” nozarēs.

Eiropas konkurētspējas ziņojums 2011 konkurētspēju definē šādi. "Konkurētspējīga ir tāda tautsaimniecība, kura ilgtspējīgi paaugstina dzīves līmeni un nodrošina iespēju strādāt tiem cilvēkiem, kuri to vēlas. Konkurētspējas saknes ir institucionālās un mikroekonomiskās politikas kārtība, kas nodrošina apstākļus, kādos var rasties un attīstīties uzņēmumi un tiek atalgots individuālais radošums un sasniegumi. Citi faktori, kas atbalsta konkurētspēju, ir makroekonomiskā politika, kas veicina drošu un stabilu ekonomisko vidi un pāreju uz zema oglekļa un resursu efektīvu tautsaimniecību. Visbeidzot, konkurētspēja nozīmē ražīguma paaugstināšanos, jo tas ir vienīgais veids, kā panākt ilgstošu ienākumu (uz vienu iedzīvotāju) kāpumu, kas savukārt paaugstina dzīves līmeni (European Competitiveness Report, 2011).

Jēdziens "konkurētspēja" ekonomikā tiek izmantots plašā nozīmē. Sākotnēji to lieto, lai raksturotu valsts konkurētspēju makroekonomiskā līmenī. Šajā gadījumā aktuāli ir tādi rādītāji kā reālais valūtas kurss un valsts ārējās tirdzniecības situācija. Pašlaik konkurētspēju pamato ar strukturālajiem faktoriem, kas nosaka atsevišķas tautsaimniecības attīstību vidējā un ilgā laika posmā. M. Porters WEF definē, ka „pasaules ekonomika nav „nulles spēle” – vienas valsts panākumi nav jānodrošina uz citas valsts rēķina. Citiem vārdiem sakot, konkurētspēja nenozīmē valsts daļu produktu un pakalpojumu tirgū (Ovalli, 2014). Tāpat ir jāsaprot, ka konkurētspējas zudumu nevajag izmantot kā argumentu, lai pamatotu iejaukšanos tautsaimniecībā, kritizējot (īstermiņa) tirgus apstākļus. Kā piemērus var minēt rūpniecisko politiku, „konkurējošās devalvācijas” un dažādās subsīdijas. Tomēr, lai izprastu iekšzemes ražīgumu un tā noteicošos faktorus, informatīva ir kritēriju salīdzināšana ar citām valstīm – tā daudzkārt ir šajā ziņojumā izmantotā metodoloģiskā pieeja. Rezultātā svarīgākais uzdevums tautsaimniecības attīstībai ir veidot apstākļus ilgtspējīgai izaugsmei.

Mūsdienās valda uzskats, ka labklājību determinē ekonomikas produktivitāte, ko nosaka saražoto produktu vērtība uz vienu patērēto resursu vienību. Produktivitāte ļauj ekonomikai nodrošināt augstu atalgojuma līmeni, saistībā ar to arī augstu dzīves līmeni. Stabila makroekonomiskā situācija rada iespējas labklājības izaugsmei, bet patēriņa labumi īstenībā tiek radīti mikroekonomikas jeb uzņēmumu līmenī, ja uzņēmumi spēj radīt produktus, izmantojot efektīvas metodes. Pamatojoties uz šo konceptu, Pasaules ekonomikas foruma (WEF) eksperti izstrādā "Globālās konkurētspējas indeksu" (GCI).

2004. gadā ieviestais (GCI) apvieno mikro - un makrovidi raksturojošos rādītājus, jo paši autori (Xavier Sala-I-Martin (Columbia University) un Elsa Artadi (Harvard University)) atzīst, ka abas vides ir neatraujami saistītas, līdz ar to (GCI) ietver abas vides raksturojošus indikatorus. (GCI) veido 12 pīlāri jeb faktori, kas rezultātā arī nosaka valsts globālo konkurētspēju. Šie faktori tika iedalīti trīs grupās. Kopš 2018. g. ir mainījies šo pīlāru grupējums. (1. tabula) Ekonomiskā politika var tieši ietekmēt daudzus šos faktorus, bet rezultāti

ražīguma vai labklājības ziņā ir tirgus procesu beigu rezultāts, kurā iesaistīti daudzu uzņēmumu un indivīdu lēmumi un darbības.

Makroekonomiskie konkurētspējas faktori ietver divas atšķirīgas sastāvdaļas. Pirmkārt, tie raksturo institucionālo kvalitāti, otrkārt, tie aptver makroekonomiskās politikas kvalitāti. Institucionālā kvalitāte nodrošina kritisku kontekstu indivīdu spējai iesaistīties tautsaimniecībā un gūt radīto vērtību. Institucionālā kvalitāte nosaka arī kontekstu, kur atrodas valsts likumdošana, kas ietekmē visas konkurētspējas dimensijas.

Mikroekonomiskās politikas īstenošanas rezultātiem ir būtiska ietekme uz uzņēmējdarbības vidi īstermiņā. Atsevišķos gadījumos mikroekonomikas faktori (ražošanas faktoru tirgi, darbaspēka prasmes un izglītības sistēma, demogrāfiskās izmaiņas, pieprasījums produktu tirgū) pārsniedz makroekonomikas pamatfaktoru ietekmi. Makroekonomiskās politikas īstenošanas rezultāti un pārskatāmība nākotnes periodiem ietekmē uzņēmumu vēlmi veikt ilgtermiņa investīcijas, līdz ar to noteikt tautsaimniecības attīstību un tās konkurētspēju ilgākā termiņā (Bondareva & Tomčík, 2015).

1.tabula. *GCI aprēķināšanas pīlāru grupējuma izmaiņas (Ekonomikas ministrija, 2018)*
 Table 1 *The computation of the changes in GCI pillar groups (Ekonomikas ministrija, 2018)*

2004 - 2018	2018 - 2019
Pamatprasības	Labvēlīgie nosacījumi
1.pīlārs: Institucionālais ietvars	1.pīlārs: Institucionālais ietvars (1)
2.pīlārs: Infrastruktūra	2.pīlārs: Infrastruktūra (2)
3.pīlārs: Makroekonomiskā vide	3.pīlārs: Tehnoloģiskā sagatavotība (9)
4.pīlārs: Veselības stāvoklis un pamatizglītība	4.pīlārs: Makroekonomiskā vide (3)
Efektivitātes pastiprinātāji	Cilvēkkapitāls
5.pīlārs: Augstākā izglītība un apmācība	5.pīlārs: Veselība (4)
6.pīlārs: Produktu tirgus efektivitāte	6.pīlārs: Izglītība un prasmes (5)
7.pīlārs: Darba tirgus efektivitāte	Tirgi
8.pīlārs: Finanšu tirgus attīstības līmenis	7.pīlārs: Produktu tirgus efektivitāte (6)
9.pīlārs: Tehnoloģiskā sagatavotība	8.pīlārs: Darba tirgus efektivitāte (7)
10.pīlārs: Tirgus lielums	9.pīlārs: Finanšu tirgus attīstības līmenis (8)
Inovācijas un izsmalcinātības līmenis	10.pīlārs: Tirgus lielums (10)
11.pīlārs: Uzņēmējdarbības attīstības līmenis	Inovāciju ekosistēma
12.pīlārs: Inovācijas	11.pīlārs: Uzņēmējdarbības attīstības līmenis (11)
	12.pīlārs: Inovāciju aktivitāte (12)

Nozīmīgākās GCI metodoloģijas izmaiņas attiecas uz datu iegūvi un izmantošanu indeksa aprēķināšanā. (2.tabula)

2.tabula. *GCI aprēķināšanas metodoloģijas salīdzinājums (Ekonomikas ministrija, 2018)*

Table 2 *The comparison of the GCI computation methodology (Ekonomikas ministrija, 2018)*

2004 - 2018	2018 - 2019
114 rādītāji (kritēriji)	106 rādītāji (kritēriji), 67% jauni rādītāji
Aptaujas dati sastāda 70% no kopējā rādītāju skaita	Aptaujas dati sastāda 30% no kopējā rādītāju skaita
Katra pīlāra devums kopējā indeksā no 5-15%	Katra pīlāra devums kopējā indeksā ir vienāds (8,33%)
Konkurētspējas faktoru nozīme (svars) ir atkarīgs no valsts attīstības pakāpes	Visi konkurētspējas faktori ir vienādi svarīgi visām valstīm neatkarīgi no tās attīstības pakāpes

Būtiskākais datu izmantošanā ir akcenta maiņa no uzņēmēju aptauju datiem uz publiski pieejamiem statistikas avotiem.

Par aptauju datiem jāatzīmē:

- *Uzņēmumu vadītāju informētība.* Lai dotu pilnvērtīgas atbildes, pēc kurām valsts tiks salīdzināta ar citām, respondentiem jābūt labi informētiem par vietējo situāciju.
- *Vai jautājumi un apgalvojumi ir pietiekami skaidri noformulēti un vai dažādās valstīs tie tiek saprasti vienādi?*
- *Atbildes ietekmēs arī tāds fakts kā tautas mentalitāte un kultūra.*

Ņemot vērā šos minētos punktus, jābūt uzmanīgiem, interpretējot aptaujas rezultātus. Faktiski konkurētspējas indeksu nosaka tas, ko valsts uzņēmēji domā par konkurētspēju, nevis kāda tā ir saskaņā ar statistiku (Vanags & Leduskrasta, 2005).

Baltijas valstu globālās konkurētspējas izmaiņas laika periodā no 2009. līdz 2019.gadam

The changes of the baltic states' global competitiveness in 2009-2019

Konkurētspējas paaugstināšana ir svarīgs tautsaimniecības uzdevums vispārējās globalizācijas laikmetā. Konkurētspējas analīze ļauj novērtēt dažādu valsts konkurētspējas priekšnosacījumus salīdzinājumā ar citām valstīm un labāk noteikt nepieciešamo reformu virzienus un arī izvirzīt prioritātes. Analizēt valstu konkurētspējas izmaiņas, izmantojot Pasaules ekonomikas foruma ziņojuma rezultātus, var vairākos aspektos. Turpinājumā, raksturojot Latvijas, Lietuvas un Igaunijas konkurētspējas izmaiņas, tiks analizēta valstu izmaiņu dinamika kopējā konkurētspējas reitingā.

Globālās konkurētspējas ziņojums 2009.–2010. gadam, ar ko plašāka sabiedrība tika iepazīstināta 2009. gada septembra sākumā, ir tapis pasaules

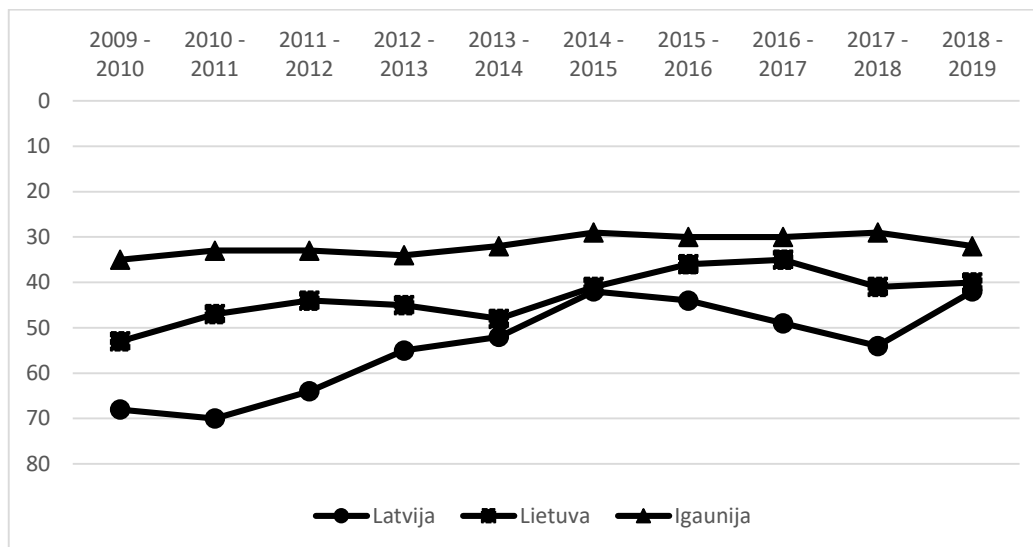
sabiedrībai ļoti sarežģītā brīdī – globālās ekonomiskās krīzes laikā, ko pasaulē ievērojamākie eksperti ir novērtējuši kā visdziļāko krīzi kopš lielās depresijas laikiem (Zadorožnaja, 2010).

“Spēcīga pasaules ekonomiku savstarpējā atkarība šo krīzi padara par patiesi globālu ekonomisku krīzi visās nozīmēs. Valstu līderi šobrīd cenšas tikt galā ar jaunajiem ekonomiskajiem izaicinājumiem, sagatavojot savas ekonomikas, lai tās spētu funkcionēt nākotnes ekonomiskajā ainavā, kam būs raksturīga pieaugoša nenoteiktība. Sarežģītajā globālajā ekonomiskajā vidē svarīgāk nekā jebkad agrāk būs ielikt drošus pamatus, kas balstīs ekonomisko izaugsmi un attīstību,” atzīmē Pasaules Ekonomikas foruma dibinātājs un izpilddirektors Klauss Švābs (Zadorožnaja, 2010).

Baltijas valstis laika periodā no 2009. līdz 2017. gadam ir panākušas konkurētspējas indeksa pieaugumu, tomēr izmaiņu dinamika ir atšķirīga. Ja Igauniju var raksturot kā neapstrīdamu (GCI) līderi Baltijas valstu starpā, kurai šajā laikā indekss ir pakāpeniski pieaudzis, tad Lietuvā var vērot stagnācijas periodu (2011. – 2014.), bet Latvijas indekss ir gan samazinājies (2014. – 2016.), gan stagnējis (2015. – 2017.). Ja 2014. – 2015. gadā Lietuvas (4,51) un Latvijas (4,50) attīstības indeksi ir līdzīgi, tad tos veidojošo faktoru grupu vērtējums uzrāda nozīmīgu diferenciaciju. Ja Latvijai nedaudz augstāks vērtējums ir faktoru grupās “pamata prasības” un “efektivitātes pastiprinātāji” (5,14 un 4,60 pret 5,08 un 4,54), tad Lietuva ievērojami apsteidz Latviju “Inovācijas faktoru” grupā (3,97 pret 3,68). Ietvert GCI analīzi par 2018. g. nav korekti atšķirīgās metodoloģijas dēļ.

Analizējot valstu atrašanās vietu kopējā konkurētspējas reitingā (1.attēls), vērojama mazliet atšķirīga izmaiņu dinamika. Konkurētspējas indeksa pieaugums nenozīmē valsts konkurētspējas uzlabošanu kopējā reitingā. Piemēram, (GCI) pastāvīgs pieaugums Igaunijai atsevišķos periodos nozīmējis vai nu nemainīgu vietu saglabāšanu, vai pat atkāpšanos kopējā valstu reitingā (2010. – 2013., 2014. – 2017.). Lietuvas (GCI) stagnācijas periods (2011. – 2014.), tai nozīmējis dažu vietu zaudējumu kopējā valstu konkurētspējas reitingā. Latvijas pozīciju dinamika reitingā atšķiras no kaimiņvalstīm. Neskatoties uz (GCI) pieaugumu tā vienīgā (2009. – 2011.) piedzīvo kritumu valstu konkurētspējas reitingā, ko galvenokārt nosaka negatīvās makroekonomiskās izmaiņas valstī.

Laikā (2012. – 2015.) Latvija salīdzinoši strauji uzlabo pozīcijas kopējā konkurētspējas reitingā, bet šī tendence (2014. – 2017.) ir mainījusies uz pretējo, šajā periodā zaudējot 12 vietas kopējā valstu reitingā. Līdz ar to pozitīvi vērtējams Latvijas konkurētspējas kāpums 2018. g. ziņojumā (no 54 uz 42 vietu). Jāatzīmē, ka pielietojot metodoloģiju, līdzīga pozīcija (40 vieta) Latvijai būtu arī 2017. g. ziņojumā, Igaunijai un Latvijai tajā pašā laikā būtiski nemainot pozīciju.



1.attēls. *Baltijas valstu vieta kopējā konkurētspējas reitingā 2009. – 2019.gadā (autoru veidots pamatojoties uz World economic forum (2009.-2018))*

Figure 1 *The Baltic States' Ranks in the Global Competitiveness rating in 2009-2019 (by authors, based on World economic forum (2009.-2018))*

Indeksa uzlabojumi nedrīkst mazināt uzmanību uzņēmējdarbības vides uzlabošanā un ekonomiskās stabilitātes nodrošināšanā, jo rādītāji, kuri nav uzlabojušies vai pēdējos periodos pat pasliktinājušies, norāda uz ļoti nopietniem problēmjaudājumiem, kuru risināšana ir vitāli svarīga valsts ekonomikas ilgtspējai.

Secinājumi un priekšlikumi *Conclusions and Proposals*

1. Jēdzienu *nacionālā konkurētspēja* var pielietot salīdzinot valstu tautsaimniecības trīs virzienos – kā ražīguma mērauklu, relatīvo izmaksu rādītāju un tirgus daļu īpašās, „stratēģiskās” nozarēs.
2. Stabila makroekonomiskā situācija rada iespējas labklājības izaugsmei, bet patērīna labumi īstenībā tiek radīti mikroekonomikas jeb uzņēmumu līmenī, ja uzņēmumi spēj radīt produktus, izmantojot efektīvas metodes.
3. Neskatoties uz metodoloģiskajiem trūkumiem un izmaiņām, (GCI) apliecina Igaunijas kā ekonomiskā līdera statusu Baltijas valstu vidū. Pēdējo gadu tendence ir Baltijas valstu konkurētspējas izlīdzināšanās, kas var atstāt pozitīvu ietekmi reģiona attīstībā turpmākajā periodā.
4. Līdz ar (GCI) pozitīvi vērtējams Latvijas konkurētspējas kāpums 2018. g. ziņojumā (no 54 uz 42 vietu). Jāatzīmē, ka pielietojot metodoloģiju, līdzīga pozīcija (40. vieta) Latvijai būtu arī 2017. g. ziņojumā, Igaunijai un Latvijai tajā pašā laikā būtiski pozīciju nemainot.

5. Latvijas pozīciju konkurētspējas reitingā pierāda, ka tautsaimniecības konkurētspējas palielināšana ir nosakāma par valdības prioritāti un to būtu jāievēro valsts pārvaldei kopumā. Veidojot ekonomisko politiku jāpievērš uzmanību atsevišķu (GCI) indikatoru izmaiņu dinamikai, līdz ar to šis darbs nav tikai kāda viena administratīvā resora uzdevums.

Summary

The Global Competitiveness Index (GCI) introduced in the World Economic Forum in 2004 is one of the most widely known assessment models of global competitiveness. It had shortcomings related to the methodology of data acquisition, the most important of which was related to the dominant proportion of subjective information, because 2/3 of the information used in the calculation of the GCI is survey data of businessmen. In the last report of 2018, this proportion changed to the opposite. In the context of the Baltic States methodological changes were provided only by Latvia, while the changes in the calculation methodology had no significant effects on the rating position of Estonia and Lithuania.

Despite methodological shortcomings and changes the GCI confirms the status of Estonia as the economic leader among the Baltic States. The tendency of the last few years is the levelling of the competitiveness of the Baltic States, which may have positive impact on the development of the region in the future period.

The position of Latvia in the competitiveness rating proves that the increase of the competitiveness of the economy can be set as the priority for the government and should be respected by the public administration in general. Latvia has no institutions that address the problems of competitiveness, with the help of which the government could assess the advantages and disadvantages of its economy. When developing the economic policy, attention should be paid to the dynamics of changes in individual GCI indicators, so this work is not just the task of one administrative department.

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THEORETICAL ASPECTS OF TRANSFORMATIONAL LEADERSHIP

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Abstract. Leadership is one of the important topics in today's economic science. The topicality of the research is based on economic development requirements. Leadership influences important processes and development in the company. The paper contains a theoretical analysis of the term „transformational leadership” aspects presented in scientific literature and a determination of transformational leadership structure and research results. In the paper, the author researches four dimensions of transformational leadership. The research is based on an analysis of the specific literature and scientific publications, research papers, studies, survey results and other sources of information. Research methods: the monographic or descriptive method for research of the transformational leadership concept, the interview method. The aim of the paper is to research the conception and theoretical aspects of transformational leadership in contemporary economic science in order to develop suggestions for a company's leaders. Tasks of the paper: to find out the main aspects of the term „transformational leadership”; to make interviews with a company's leaders in order to clarify transformational leadership influence on interactions between the leaders and their followers; to develop conclusions and suggestions. The author concludes that main aspect of transformational leadership is symbiosis between the leader and the followers - transformational leaders transform the personal values of their followers to support the vision and goals of the organization.

Keywords: business, company, innovation, leadership, organization, transformational leadership, transform.

Introduction

Every company has a mission, vision, and goals that are not just about the ability of the manager, but also about the leadership skills. Leadership helps to develop and implement a business concept. Leadership stimulates, drives the business to success.

Leaders' most important job is to cultivate creativity. Their mandate is to increase the success rate of innovation rather than improve the efficiency of the operation (Ming, 2018). Leaders can help employees adopt a learning mindset by communicating the importance of learning and by rewarding people not only for their performance but for the learning needed to get there. Leaders can also stress the value of learning by reacting positively to ideas that may be mediocre in themselves but could be springboards to better ones (Gino, 2018).

Uninterrupted transformations are taking place in the contemporary economy and business. The Cambridge dictionary explains the meaning of „transformational” in English – an ability to produce a significant change of improvement in a situation. For example, the company’s chief executive described the transaction as a „transformational step” in implementing a new corporate strategy (Cambridge Dictionary, 2019).

Determining the nature of leadership influence on the development of a company takes important part of the scientific interests of many scientists all over the world. Leadership is one of the important topics in today's economic science. The topicality of the research is based on economic development requirements. Leadership influences important processes and development in the company. Leadership is divided into different directions; one of it is transformational leadership. In literature, different researchers focus on theoretical research on transformational leadership. The research is based on an analysis of the specific literature and scientific publications, research papers, studies, survey results and other sources of information.

The paper contains a theoretical analysis of the term „transformational leadership” aspects available in scientific literature and a determination of transformational leadership structure and research results. Research methods: the monographic or descriptive method for research of the transformational leadership concept, the interview method. The aim of the paper is to research the conception and theoretical aspects of transformational leadership in contemporary economic science in order to develop proposals for a company’s leaders. The author of the paper is trying to provide new insights into why and under what circumstances transformational leadership enhances the employees, including job performance and organizational citizenship behaviours directed towards the organization. Tasks of the paper: to find out the main aspects of the term „transformational leadership”; to make interviews with a company’s leaders in order to clarify transformational leadership influence on interactions between the leaders and their followers; to develop conclusions and suggestions.

Main aspects of leaders and followers in contemporary economics

The word “to transform” as a term means to change the appearance or character of something completely or someone, especially so that the thing or person is improved (Cambridge Dictionary, 2019). Transformational leaders transform the personal values of their followers to support the vision and goals of the organization by fostering an environment where relationships can be formed and by establishing a climate of trust in which visions can be shared (Stone, Russell, & Patterson, 2004). Leaders following transformational leadership styles and techniques work to transform their followers, creating a climate in the

organizations where commonly accepted and recognized values are equally shared. As a result of such an effect on followers, transformational leadership has rapidly become the approach of choice for much of the research and application of leadership theory. In many ways, transformational leadership has captured the imagination of scholars, of noted practitioners, and of students of leadership (Bass & Riggio, 2006).

Transformational leadership refers to an approach by which leaders motivate their followers to identify themselves with organizational goals and interests and to perform beyond expectations. Transformational leadership plays a critical role in causing changes necessary for effective management. As suggested by Kim (Kim, 2014), “transformational leaders have the ability to transform organizations through their vision for the future, and by clarifying their vision, they can empower the employees to take responsibility for achieving that vision.” These leaders typically display four different behaviours: idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Bass, 1985, 1990). Transformational leadership is one of the more effective leadership styles for encouraging positive in-role and extra-role behaviours in employees (MacKenzie, Podsakoff, & Rich, 2001).

Transformational leaders engage and motivate others to increase expectations and performance (Bass, 1985), which can include their service performance. Although transformational leadership has been linked to employee performance in service jobs and the service literature has also theorized and discussed the possible link between transformational leadership and service recovery performance (Lin, 2010), research has yet to examine this relationship.

Transformational leaders raise followers’ self-expectations, providing a vision and a sense of mission, helping the followers emphasize rational solutions and to challenge themselves constantly (Cho & Dansereau, 2010). A meta-analysis of transformational leadership showed that transformational leadership motivates employees to achieve performance aligned with organizational goals (Judge & Piccolo, 2004).

Transformational leadership means providing inspiration towards constant change through idealized influence, inspirational motivation, intellectual stimulation and individual consideration (Avolio & Bass, 2004). Because the four dimensions of transformational leadership are consistently found to be highly interrelated, they are typically regarded as and combined into a higher order transformational leadership construct (Judge & Piccolo, 2004). Transformational leadership is a style of leadership geared towards change and towards improving individual and collective performance (Bass & Bass, 2008).

Analysing the literature on the term „transformational leadership”, the author of the paper concludes that transformational leadership plays an important role in causing changes necessary for effective management and development of

the company. Transformation leadership as a result of the impact on followers, has become the choice for a lot of researchers. Understanding of the concept "transformational leadership" differs, and it is reflected in the research studies of various authors. There is no universal and precise definition.

Content and structure of transformational leadership

Burns defines transformational leadership as a symbiosis of the leader and the followers, in which the leader and his/her followers are in a complementary relationship - complementing each other, and both leaders and their followers achieve higher levels of motivation and morality. Initially, the different goals become common, which is precisely the consequence of such leadership. (Dubkevičs, 2011)

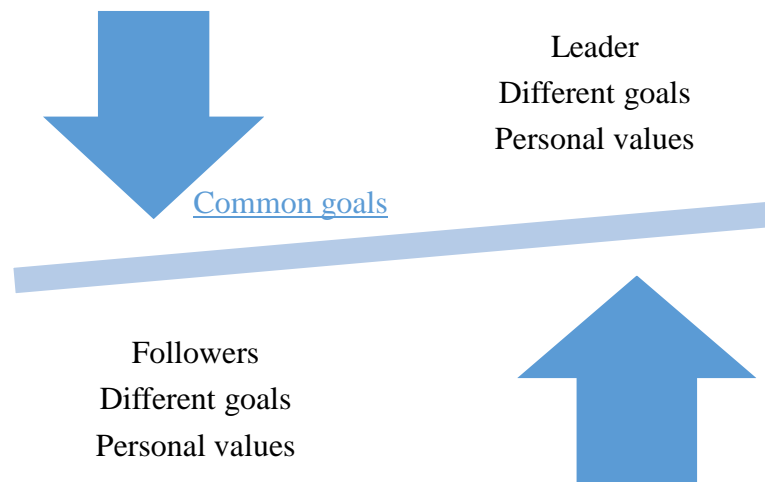


Figure 1 Transformational leadership - symbiosis between the leader and the followers
(compiled by the author based on Burns theory (Burns, 1978))

According to Burns, transforming leadership is a process in which 'leaders and their followers raise each other at higher levels of morality and motivation.' It is assumed that followers break their egoism for the sake of a common cause, take long - term goals into account, and develop the ability to perceive the important. According to Bennis, effective leaders make three fusions: coordinate, create and empower. Leaders transform organizations by coordinating human and other resources, building an organizational culture that promotes the free expression of ideas and allows others to benefit the organization. Bennis separates leadership from the concept of governance, he says, "Leaders are the people who do the right things; managers are the people who do things right (Kovejs, 2008). Burns also distinguishes between leaders and "power wielders". Leaders in some way satisfy the motives of their followers, whereas power-wielders are intent only

on realizing their own purposes, whether or not these are shared by the people over whom they exert their power (London, 2015).

Transformational leadership consists of four core dimensions: idealized influence (attributes and behaviours) describes a manager who is an exemplary role model for followers, sets high standards of conduct, and is able to articulate the vision of the organization in an effort to win the trust of the followers. The second dimension, inspirational motivation, reflects a leader's clear articulation of a compelling vision through words, symbols, and imagery (Bass, 1985) to inspire followers to act. The third dimension, intellectual stimulation, reflects the extent to which a leader solicits the employees' perspective on problems and considers a wide variety of opinions in making decisions (Bass, 1985). Finally, leaders engaging in individualized consideration - the fourth dimension of transformational leadership - attend to the individual differences in the needs of their employees and seek to coach or mentor them in an effort to help them reach their full potential (Avolio, Bass, & Jung, 1999).

The author of the paper made research on and interviewed a few managers from the micro-small and medium-sized enterprise (SMEs) category in Latgale region (companies wanted to stay anonymous) in different fields about transformational leaders. The purpose of the interviews was to find out - have the companies introduced the four - factor model of transformational leadership and which element was mainly used in their daily work. The question methodology was based on Prachi Juneja's model of transformational leadership. (Juneja, 2019) Interviews were done in November 2018. The author chose managers by their availability and different spheres of activity. Type of enterprise activity: first company represents water tourism, employs 4 people; second company represents catering business, employs 16 people; third company represents retail business, employs 34 people. The author of the paper interviewed chairmen's of companies boards. All companies have simple management structure – employees are subordinate to manager.

Table 1 Analysis of transformational leadership factors (compiled by the author, based on answers of interviewees)

Question	Company 1	Company 2	Company 3
Inspirational Motivation			
Is there a vision, mission and set of values in your company? What exactly?	The vision of our company is the provision of quality leisure services for all visitors. Promoting a sporty and active lifestyle.	There is no specific vision. But I started my business with the idea - if others can, I can do better!	Yes, of course, but not specifically defined. Our focus is on product quality.

Are there any promotional activities for your team members?	Informal activities outside working hours, mostly athletic.	Yes. Usually it is praise and gratitude for work on a daily basis. Also financial motivation.	Yes, out of work. Premiums for a good job.
Is your vision of work in the company convincing when you work with your employees?	Yes, of course, I know what needs to be done, prepare for a specific job, but I always ask the staff for their opinion about work.	Yes, I have a specific vision.	A business manager should always be convinced of what s/he is doing.
Do you challenge your employees?	I expect the employee to take the initiative to see the problems and find solutions independently.	Usually, work and customers are challenging every day.	It should be asked to my employees. But I think I challenge them.
Do you work enthusiastically and optimistically to promote team spirit and commitment?	Yes, I always try to be positive.	Yes, we try to work in a team.	Of course, I am an optimist by nature. Collegial relations are very good, so team spirit is strong.
Intellectual Stimulation			
Do you encourage your employees to be innovative and creative?	Employee ideas are heard, but I rationally evaluate if it is possible to realize creative ideas.	Workers are aware of the outcome of the work, but s/he chooses how s/he does and for how long time. I think they are allowed to be creative and innovative.	My employees are already creative.
Are the new ideas discussed / criticized publicly?	No, under no circumstances. When the idea is expressed publicly, but I am not satisfied, I always answer that I have to think and evaluate.	Yes, if ideas relate to work, improving the result.	Ideas are discussed but criticized under no circumstances.
Do you focus on problems without paying attention to the guilty person?	The problems and mistakes I perceive as joint, which will be tackled by common forces.	Usually, yes. There is no time in my company to find the guilty person. If a problematic situation arises, it must be resolved immediately.	All problems are common and are dealt with together.
Idealized Influence			
Do you act as a role model in your company?	Of course, I take the initiative for any job. I am always punctual and polite.	Trying. Generally, I do not dictate tasks, I show an example how work needs to be done.	I hope I am a model. I'm trying to be like that.
Do you always gain confidence	Full confidence and always get impossible,	So far, yes.	I am trying to be a trust person to my

and respect from your employees by your actions?	but I try to build my relationships with employees to bring mutual trust, friendship and comfort closer together.		subordinates to have mutual understanding.
Do you use your power to influence your organization's overall goals?	I understand that it depends on me whether the company will function and be able to live. This will make it possible to catch up with the company's goals.	Perhaps sometimes. Power is not directed against employees.	The use of power depends on the situation.
Individualized Consideration			
Do you act as a mentor for your employees and reward them for creativity and innovation?	I tell everything to my employees what I know about the specific nature of the job, so I transfer knowledge. The awards have not been made yet, as I believe that this is not a motivating factor for a small team. Informal events are better organized, where joint collective work is appreciated.	Yes. Employees are not dictated by obligations, but rather by explaining the purpose of the company. The employee is always rewarded with gratitude and financial support.	As my employees are already creative, we learn from each other. I reward more for achievements than for creativity.
Do you know the talents and knowledge of your employees?	Yes, I have close contact with employees.	Yes of course. Therefore, the employee is offered the appropriate duties, even if those duties do not correspond to the job description.	Of course, I have good contact with my employees, I know a lot about them.
Are your employees empowered to make decisions and always have the support they need to make their decisions?	It depends on the situation and degree of responsibility of the decision. If an employee has taken the initiative and has made a decision, after evaluation I try to provide support.	Usually yes. Employees know what the outcome of the job should be, but how they will achieve, it is a relatively free choice.	It depends on the kind of decision. But support I'm giving always.

From the answers, the author made a conclusion that transformational leadership is positively related to job performance. The first dimension of transformational leadership is inspirational motivation - all companies have a vision, not specifically defined, but leaders know future development directions; mostly promotional activities are out of work time; leaders are giving financial

support; all leaders are convinced of a job with employees; all leaders challenge employees; all leaders are optimistic and they keep team spirit strong. The second dimension of transformational leadership is intellectual stimulation - not all leaders encourage employees to be innovative and creative, main difference - one motivates, others do not; new ideas under no circumstances are criticized in public. The third dimension of transformational leadership is idealized influence - all leaders are trying to act as role models in the company; leaders definitely are trying to build relationships with employees to bring mutual trust and respect; use of power to influence the organization's goals is not directed to employees, and it depends on situation. The fourth dimension of transformational leadership is individualized consideration - action as a mentor for employees is used in every company; employees are not always rewarded with gratitude and financial support; leaders know the talents and knowledge of the employees; they have good relationship and contact; employees are not always empowered to make decisions but they have the support from the leader. Based on the research, the author concludes that companies have introduced the four factor- model of transformational leadership and all the elements are used in daily work.

Conclusions

The results of the research shows that the issue of transformational leadership is a common topic in literature and that it can be topical and interesting for future research in science. Understanding of the concept "transformational leadership" differs, and it is reflected in the research studies of various authors. There is no universal and precise definition. Analysing the literature on the term „transformational leadership”, the author of the paper concludes that transformational leadership plays an important role in causing changes necessary for effective management and development of the company.

The main aspect of transformational leadership is symbiosis between the leader and followers - transformational leaders transform the personal values of the followers to support the vision and goals of the organization. From the interviews, the author made a conclusion that transformational leadership is positively related to job performance. The four dimensions of transformational leadership - inspirational motivation, intellectual stimulation, idealized influence, individualized consideration are very important factors in action between the leaders and their employees/followers. Inspirational motivation - companies have a vision, not specifically defined, but leaders know future development directions. All leaders are optimistic and they keep team spirit strong. Intellectual stimulation - not all leaders encourage their employees to be innovative and creative. Main difference - one motivates, others do not. Idealized influence - all leaders are trying to act as role models in the company. Leaders are definitely

trying to build relationships with their employees to bring mutual trust and respect. Individualized consideration - action as a mentor for employees is used in every company. From the research, the author concludes that companies have introduced the four-factor model of transformational leadership and all the elements are used in daily work.

The author of the paper recommends to leaders – creativity of employees should be encouraged for the issues occurred in the company/organization, and individual differences of employees should be respected.

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VENTSPILS NOVADA DARBA TIRGUS PROBLĒMAS UN PRIEKŠLIKUMI SITUĀCIJAS UZLABOŠANAI

Problems of the Ventspils Region Labour Market and Proposals for Situation Improvement

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Abstract. *There are several studies carried out on the problems of the Ventspils region labour market, but due to rapid changes in the economic situation, the results of these studies no longer accurately reflect the current situation. The aim of the paper is to present the research for identification and analysing of specific problems in the Ventspils region labour market and propose solutions for situation improvement. The research has examined the relationship between labour market change, labour market conditions and employers' expectations in Ventspils region. The research is based on both secondary data analysis and primary data analysis obtained in a quantitative (questionnaire survey of entrepreneurs – employers) way and a qualitative way (interviews with representatives of the non-governmental sector). The analysis also showed that the main problem of the labour market related to lack of a qualified, skilled and motivated labour force. It is very important to identify opportunities for increasing qualifications and re-qualification in cooperation with educational institutions and the State Employment Agency. The problem was also the employment of persons before retirement and persons with disabilities. Therefore, there are necessary new, more effective mechanisms of involvement of these groups in the labour market, which are based on cooperation with NGOs, continuing education possibilities and social entrepreneurship. The role of the municipality is very important in this process.*

Keywords: *labour market problems, qualified labour force, effective mechanisms for increasing of employment, social entrepreneurship*

Ievads

Introduction

Darba tirgus stāvoklis valstī un tā attīstības iespējas raksturo vairāku radītāju kopums:

- ekonomiski aktīvo iedzīvotāju skaits, kas nosaka kopējo darbaspēka piedāvājumu,

- tautsaimniecībā nodarbināto skaits un to sadalījums pa nozarēm un atsevišķiem valsts reģioniem,
- darba meklētāju un bezdarbnieku skaits,
- iedzīvotāju migrācija u.c. (Purmalis, 2011).

Darba tirgus galvenā problēma ir darbaspēka pieprasījuma un darbaspēka piedāvājuma atšķirības gan kvantitatīvos (piem., reģionā nav pietiekami daudz medmāsu), gan kvalitatīvos lielumos (piem., reģionā ir pietiekami daudz medmāsu, bet to kvalifikācija vai prasmes neatbilst darba devēja prasībām).

Darba tirgus ir atkarīgs no vairākiem faktoriem, tai skaitā tautsaimniecības attīstības tendences un mūžizglītības iespējām.

Ventspils novada darba tirgus problēmas un jautājumi ir aplūkoti vairākos pētījumos, taču sakarā ar straujajām ekonomikas situācijas izmaiņām iepriekš veikto pētījumu rezultāti vairs precīzi neatspoguļo pašreizējo darba tirgus situāciju, kas nepieciešama efektīvai konkrētu aktivitāšu īstenošanai bezdarba mazināšanai un situācijas uzlabošanai. Pētījuma mērķis ir identificēt un analizēt Ventspils pilsētas un novada darba tirgus specifiskās problēmas un sniegt priekšlikumus situācijas uzlabošanai – aktivitāšu nodarbinātības veicināšanai.

Pētījumā izmantota gan sekundāro datu analīze (Ventspils pilsētas un Ventspils novada rīcībpolitikas izpēte, analizējot stratēģiskos dokumentus nodarbinātības kontekstā, Nodarbinātības Valsts aģentūras Ventspils filiāles apkopotā statistika), gan primāro datu analīze, veicot kvalitatīvās intervijas un kvantitatīvo aptauju. Nodarbinātības situācijas analīzei izmantotas statistisko datu metodes – aprakstošā statistika, salīdzināšana, grupēšana, vidējo lielumu aprēķināšana.

Primārie dati tika iegūti:

- a) izmantojot kvantitatīvu pētījumu metodi: veicot uzņēmēju – darba devēju aptauju lielākajos Ventspils pilsētas un novada uzņēmumos;
- b) izmantojot kvalitatīvu pētījumu metodi: veicot padziļinātas intervijas ar NVO ekspertiem, tika analizētas iespējas nodarbināt cilvēkus nevalstiskajā sektorā un, iespējams, sociālajā uzņēmējdarbībā.

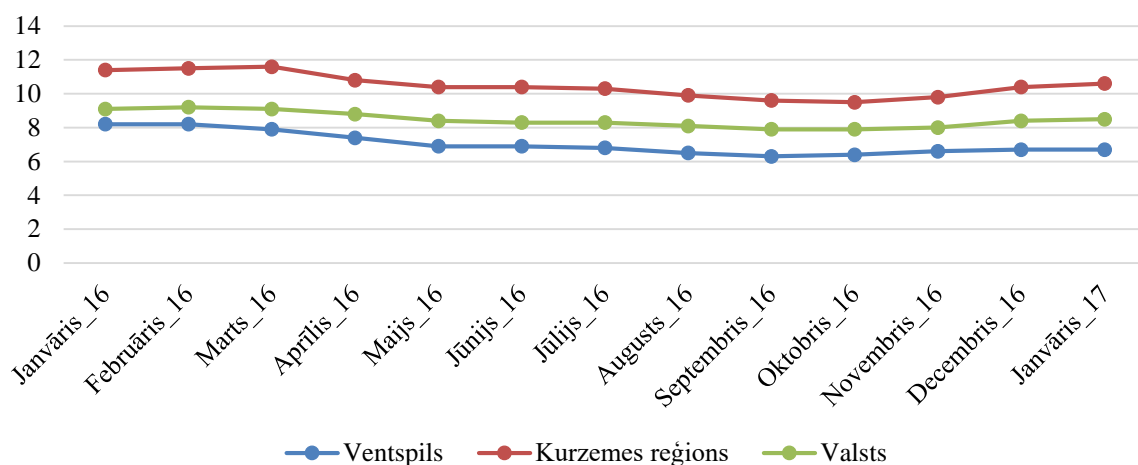
Ventspils novada darba tirgus raksturojums un stratēģisko dokumentu analīze

Analysis of Ventspils region's labour market and strategic documents

Ventspils pilsētas un novada ekonomikas attīstības procesā darba tirgus struktūra dinamiski mainās ne tikai kvantitatīvi, bet arī kvalitatīvi, radot disproporcijas starp darbaspēka piedāvājumu un pieprasījumu, kas secīgi izraisa darbaspēka pieprasījuma un piedāvājuma problēmas un ir viena no attiecīgo pašvaldību stratēģisko dokumentu stratēģijas neatņemamām sastāvdaļām.

Saskaņā ar Pilsonības un migrācijas lietu pārvaldes (PMLP) datiem, 2016.gada janvārī, Ventspils pilsētā bija 39 861 deklarēto iedzīvotāju, no kuriem 54,3% - sievietes, 45,7% - vīrieši. Salīdzinot ar 2015.gada 1.janvāri, iedzīvotāju skaits samazinājies par 412 iedzīvotājiem jeb par 1.0%. Darbspējas vecuma iedzīvotāju skaits sastādīja 25 139 iedzīvotāji jeb 63,1%, līdz darbspējas vecumam ir 5 660 iedzīvotāji jeb 14,2%, bet virs darbspējas vecuma ir 9 062 iedzīvotāji jeb 22,7%. Salīdzinot ar 2015.gada 1.janvāri, iedzīvotāju skaits darbspējas vecumā ir samazinājies par 534 iedzīvotājiem (PMLP, 2017). Ventspils novadā, saskaņā ar PMLP datiem, 2016.gada 1.janvārī, bija 12361 deklarēto iedzīvotāju. Salīdzinot ar 2015.gada 1.janvāri, iedzīvotāju skaits samazinājies par 529 iedzīvotājiem (PMLP, 2017). Iedzīvotāju galvenās vecumu grupas (pēc 2014.gada datiem) ir šādas: darbspējas vecuma cilvēki sastāda 66%, līdz darbspējas vecumam – 15%, pēc darbspējas vecuma – 19% iedzīvotāju.

Saskaņā ar Nodarbinātības valsts aģentūras (NVA) datiem reģistrētā bezdarba līmenis Ventspils NVA filiālē (Ventspils pilsēta un novads) 2017. gada 31.janvārī ir 6,7% no ekonomiski aktīvajiem iedzīvotājiem jeb 1489 personas, kas ir zemāks nekā Kurzemes reģionā (8,5%) un valstī kopumā (10,6%) (NVA, 2018) (skat. 1.attēlu)



1.attēls. *Ventspils bezdarbnieku skaits (%) salīdzinājumā ar Kurzemes reģionu un valsti kopumā (autoru veidots, balstoties uz NVA, 2018)*

Figure 1 *Unemployment rates in Ventspils region, Kurzeme region and the country as a whole (developed by authors based on NVA, 2018)*

Visaugstākais bezdarbnieku īpatsvars ir: starp iedzīvotājiem ar profesionālo vidējo izglītību un starp pirmspensijas vecuma personām (vecuma grupās 55-59 gadi un 50-54 gadi). Lielākai daļai bezdarbnieku bezdarba ilgums sastāda līdz 6 mēnešiem. Ventspilī salīdzinot ar valsti kopumā ir mazāk ilgstošie bezdarbnieki (vairāk par 3 gadiem - 3% no visiem bezdarbniekiem, no gada līdz 3 gadiem – 14%). Lielākā daļa no problēmgrupu bezdarbniekiem sastāda ilgstošie bezdarbnieki un bezdarbnieki pirmspensijas vecumā. Saskaņā ar NVA sniegto

informāciju Ventspils filiālē uz 2017. gada februārī skaitliski pieprasītākās profesiju vakances ir – zivju apstrādātājs, palīgstrādnieks un apsargs (NVA, 2018).

Ventspils pilsētas Dome (VPD) un Ventspils novada pašvaldība (VNP) savos stratēģiskajos dokumentos, kā arī rīcības plānos un programmās rūpes par bezdarba samazināšanu ir akcentējusi kā vienu no galvenajām funkcijām [1:13 un 4:14] (Ventspils novada dome, 2014a, Ventspils pilsētas dome, 2014a). Tāpēc arī pētījuma „Ventspils pilsētas un novada iedzīvotāju bezdarba iemesli un priekšlikumi situācijas uzlabošanai” izstrādē ņemti vērā par bezdarbu un nodarbinātību noteiktais atbalsts un regulējums attiecīgo ilgtermiņa, vidējā termiņa un pašreiz spēkā esošajos stratēģiskajos, plānošanas, kontroles u.c. dokumentos.

Ventspils pilsētas ilgtspējīgas attīstības stratēģija līdz 2030.gadam un Ventspils novada (turpmāk – Novads) ilgtspējīgas attīstības stratēģija līdz 2030.gadam ir pamats citu attiecīgo VPD un VNP un to institūciju attīstības plānošanas dokumentu izstrādei, tajā skaitā, arī darba tirgus problēmu risināšanai. (Ventspils novada dome, 2014b; Ventspils pilsētas dome 2014b). Ventspils pilsētas un Ventspils novada attīstības plānu, projektu un citu pētījumu apskats ļauj secināt, ka pilsētas un novada galvenais stratēģiskais mērķis ir līdzsvarota un ilgtspējīga pilsētas un novada attīstība, kas nodrošina mūsdienu paaudzes vajadzības, neradot grūtības nākamām paaudzēm nodrošināt savas vajadzības. Nodarbinātības jomā – tā ir nodarbinātības līmeņa paaugstināšana un bezdarba līmeņa samazināšana līdz dabiskā bezdarba līmenim (Ventspils novada dome 2014a; Ventspils pilsētas dome, 2014a).

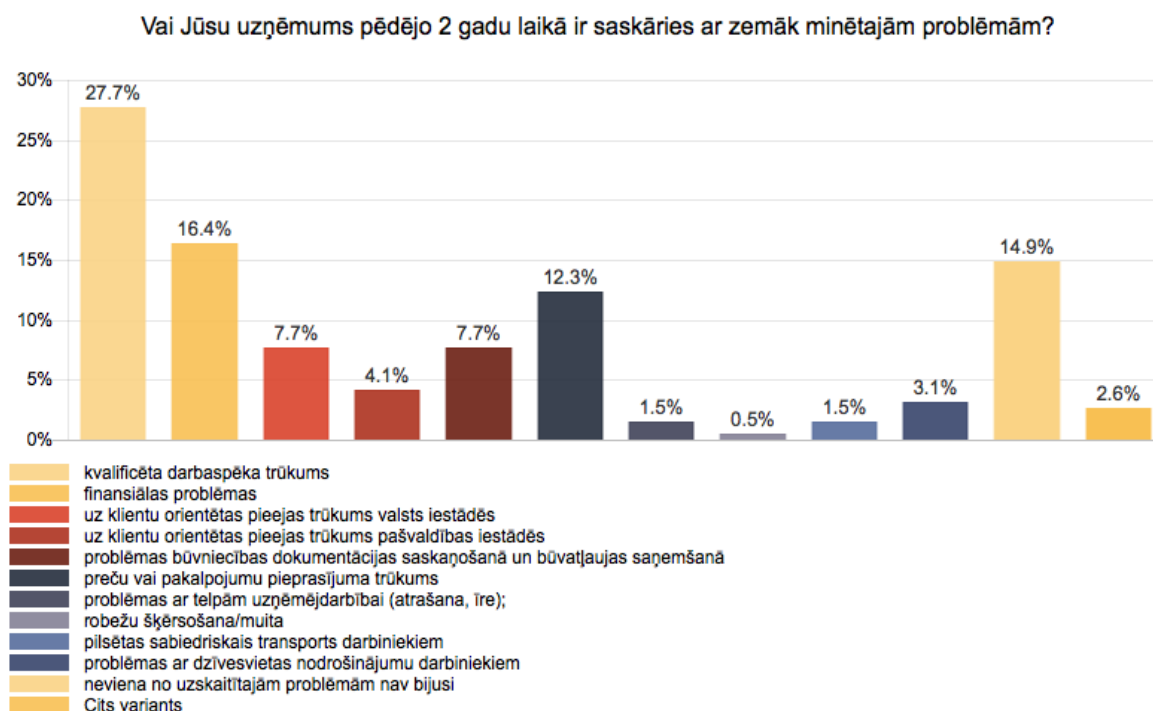
Ventspils novada darba dēvēju viedoklis par darba tirgus problēmām un to cēloņiem

Ventspils region labour market problems and their causes – employers' opinion

Ventspils darba tirgus pieprasījumu izpētei, tika veikta Ventspils reģiona darba devēju aptauja, lai analizētu Ventspils pilsētas un novada darba tirgus problēmas un vajadzības, un noteiktu darba tirgus pieprasījumu ilgtermiņā. Apaujas rezultāti tika izmantoti priekšlikumu izstrādei darba tirgus situācijas uzlabošanai Ventspils pilsētā un novadā. Pētījums paredzēja kvantitatīvo datu iegūvi par Ventspils pilsētā un novadā reģistrētajiem uzņēmumiem.

Izlase veidota, izmantojot pētījuma Pasūtītāja (Ventspils pilsētas domes) iesniegto datu bāzi - 187 uzņēmumi (166 pilsētas uzņēmēji un 21 novada uzņēmējs). Kopumā dati iegūti par 101 respondentu no kopējās izlases. Vērtējot izlases lieluma attiecības pret kopējo uzņēmēju populāciju, secināms, ka apkopoto atbilžu skaits spēj reprezentēt ģenerālo kopu ar kļūdas robežu 7 un ticamību 95%.

Iegūtie dati analizēti, veicot aprakstošo, kā arī secinošo statistiku. Secinošās statistikas apstrādei izmantota SPSS datu apstrādes programma.



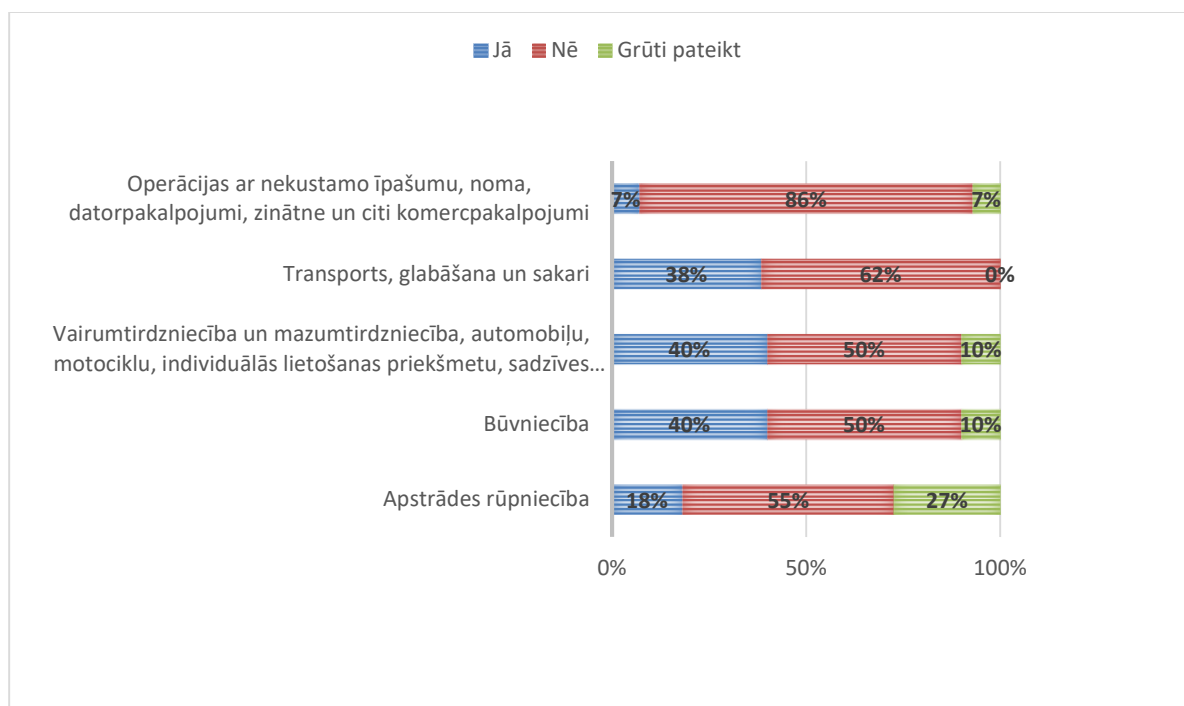
2.attēls. **Būtiskākās problēmas uzņēmējdarbības jomā pēdējo 2 gadu laikā**
(autoru veidots, balstoties uz pētījuma datiem, 2018.)

Figure 2 **Major problems in entrepreneurship within the last two years**
(developed by authors, based on research data, 2018)

Jautājumā par būtiskākajām problēmām uzņēmējdarbības jomā pēdējo 2 gadu laikā, visbiežāk uzņēmēji min kvalificēta darbaspēka problēmu (27,7%), kam seko finansiālās problēmas (16,4%) un preču un pakalpojumu pieprasījuma trūkums (12,3%). Tomēr būtiski atzīmēt, ka salīdzinoši liela daļa (14,9%) ir atzīmējuši, ka nav saskārušies ar nevienu no jautājumā minētajām problēmām (skat. 2.attēlu). Kā citi varianti ir minēti šādi faktori: neprognozējama nodokļu sistēma un pastāvīgo iedzīvotāju trūkums.

Neskatoties uz to, ka būtiskākā problēma ir kvalificēta darbaspēka trūkums, lielākai daļai aptaujāto uzņēmēju (67,3%) pēdējo 2 gadu laikā nav bijušas darbaspēka trūkuma problēmas, kas nozīmē neaizpildītas darbavietas ilgāk par 3 mēnešiem (skat. 2.attēlu). Šī tendence ir vērtējama ļoti pozitīvi un daļēji nozīmē, ka uzņēmēji salīdzinoši ātri aizpilda vakances, nodrošinot darba vietas. Neaizpildītas darba vietas ilgāk par 3 mēnešiem ir bijušas 24,8% no aptaujātiem uzņēmējiem. No tiem uzņēmējiem, kuri ar šo problēmu bija saskārušies (24,8%), lielākā daļa norāda, ka tas bija saistīts ar specifiskām amata prasmēm un zināšanām (52,3%). Šo atbildi var saistīt ar jautājumu par būtiskākajām

uzņēmējdarbības problēmām, kur lielākā daļa norādīja – kvalificēta darba spēka trūkums. Tādējādi varam secināt, ka problēma nav tik daudz meklējama darbaspēka pieejamībā, jo lielākai daļai nav neizpildītu vakanču ilgāk par 3 mēnešiem, kā arī lielākai daļai darbinieku skaits nav samazinājies pēdējo 2 gadu laikā, kā darbaspēka kvalifikācijā un motivācijā (minējuši 18,2 uzņēmēji). 18,2 % no aptaujātajiem uzņēmējiem minējuši darba algas fonda nepietiekamību jaunu darbinieku pieņemšanai darbā un tieši tāda pati daļa motivācijas trūkumu (18,2%).



3.attēls. Uzņēmumu darbaspēka trūkuma problēmas pēdējo 2 gadu laikā, salīdzinot uzņēmumus pēc uzņēmējdarbības nozares (balstoties uz pētījuma datiem, 2018.)
 Figure 3 Problem of labour shortage in different business sectors within the last two years (developed by authors based on research data, 2018.)

Lai arī statistiski nozīmīgas atšķirības starp dažādu uzņēmējdarbību nozaru pārstāvjiem jautājumā par darbaspēka trūkumu nepastāv, tomēr, lai gūtu iespējami skaidrāku izpratni par darba spēka problēmām, šis jautājums tika apskatīts uzņēmējdarbības nozaru griezumā (skat. 3.attēlu). Kā redzams 3. attēlā lielākais darbinieku trūkums aptaujāto uzņēmumu nozarēs ir vērojams, būvniecībā (40%), vairumtirdzniecības un mazumtirdzniecības nozarē (40%), kā arī transporta, glabāšanas un sakaru nozarē (38%).

Vairāk kā puse respondentu, sniedzot atbildi uz jautājumu par darbaspēka trūkuma ietekmējošiem faktoriem, kā biežāko problēmu minējuši specifiskām amata prasmēm un zināšanām neatbilstošus kandidātus (52%), nākamie divi biežāk minētie faktori ir darbinieku motivācija (18%) un darba algas fonda

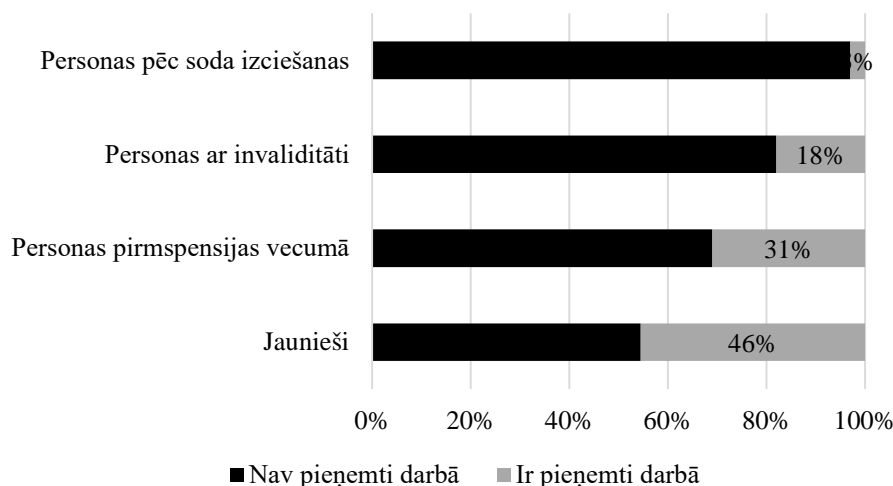
nepietiekamība (18%).

Viena no nozīmīgākajām problēmām, kas ir saistīta ar nodarbinātību, ir sociāli mazāk aizsargāto grupu iekļaušanu darba tirgū. Pētījuma ietvaros uzņēmējiem tika lūgts norādīt, vai pēdējo 2 gadu laikā viņu uzņēmumā ir pieņemti darbinieki kādā no sociāli neaizsargātajām grupām.

Kā redzams 4.attēlā, darba devēji savos uzņēmumos vismazāk iesaista personas pēc soda izciešanas. No aptaujātajiem respondentiem tikai 3 uzņēmumi norādīja, ka pēdējo 2 gadu laikā ir pieņēmuši darbā personas pēc soda izciešanas.

Nākamā retāk norādītā sociāli neaizsargātā grupa, kuru darbinieki ir pieņēmuši darbā pēdējo divu gadu laikā, ir personas ar invaliditāti. Minētās grupas pārstāvjus darbā ir pieņēmuši 18% uzņēmumu.

Salīdzinoši aktīvāk uzņēmēji savos uzņēmumos pieņem darbā jauniešus – gandrīz puse (46%) no aptaujātajiem uzņēmumiem ir norādījuši, ka pēdējo divu gadu laikā ir pieņēmuši darbā jauniešus.



4.attēls. Uzņēmumos pieņemtie darbinieki no sociāli neaizsargātām grupām pēdējo 2 gadu laikā (autoru veidots, balstoties uz pētījuma datiem, 2018.)

Figure 4 Employment of individuals from socially vulnerable groups within the last two years (developed by authors based on research data, 2018)

Pētījuma datu analīze liecina, ka kopumā situācija nodarbinātības jomā Ventspils pilsētas un novada uzņēmēju vidū ir vērtējama pozitīvi – lielākai daļai uzņēmēju darbinieku skaits pēdējo 2 gadu laikā ir palicis nemainīgs vai palielinājies, kā arī lielākajai daļai aptaujāto uzņēmēju pēdējo 2 gadu laikā nav bijušas darbaspēka trūkuma problēmas, t.i. neizpildītas darba vietas ilgāk par 3 mēnešiem. Tomēr, jāvērs uzmanība, ka visbiežāk darbinieku skaits ir samazinājies lielo uzņēmumu grupā, kuru darbinieku skaits pārsniedz 250 cilvēkus, kā arī lielie uzņēmēji biežāk min kvalificēta darbaspēka trūkuma problēmu, tādejādi varam secināt, ka tas skar lielāku skaitu darbinieku.

Par lielu iespēju jāuzskata tālākizglītības pasākumi, lai paaugstinātu darbaspēka kvalifikāciju, kas atbilst uzņēmēju izvirzītajām prasībām. Sadarbībā ar Nodarbinātības valsts aģentūras Ventspils filiāli un Ventspils augstskolas Mūžizglītības centru jāizvērtē, kuru profesiju apguve un kādu profesionālo prasmju apmācība nepieciešama darba tirgū un kuri apmācību kursi varētu tikt nodrošināti ar Domes atbalstu. Kā uzrāda pētījums, darba devēji nav apmierināti ar tā darbaspēka kvalifikāciju, profesionālo sagatavotību un kompetenču līmeni, kas reģistrēti kā bezdarbnieki un ko NVA piedāvā vakanču aizpildīšanai.

Nevalstisko organizāciju sektors kā sociālās uzņēmējdarbības attīstības potenciāls

Non - governmental sector as potential for social entrepreneurship

Nevalstiskā sektora izpēte ir svarīga no sociālās uzņēmējdarbības attīstības perspektīvas, jo daļa organizāciju veic saimniecisko darbību un nodarbina personālu. Būtisks ir jautājums, cik daudz NVO plāno kļūt par sociāliem uzņēmumiem, kuri radīs jaunas darba vietas un nodarbinās sociāli neaizsargātās iedzīvotāju grupas (Caune, Neilande, Krieviņa-Sutora, & Pīpiķe, 2016).

Saistībā ar pētījuma mērķi - ir izvērtēt darba tirgus attīstības tendences, no nevalstiskajām organizācijām ekspertu intervijām tika izvēlētas tās, kuras varētu izveidot sociālos uzņēmumus un nodarbināt sociāli ievainojamākās sabiedrības grupas. Ekspertu intervijām tika izraudzīti 4 pieredzējuši savas nozares profesionāļi, kuri pārstāvēja 4 ilgstoši un profesionāli darbojošās nevalstiskās organizācijas. Visas nozares ekspertes uzsver pašvaldības lomu, sociālās uzņēmējdarbības veicināšanai, kas var izmantot savu administratīvo kapacitāti un budžetu dažādu aktivitāšu īstenošanai. Vietējai pašvaldībai ir būtiska nozīme sociālo uzņēmumu attīstības un izveides veicināšanā, kā arī atbalsta mehānismu izveidē (Latvijas Pašvaldību savienība, 2016). Lai gan tas ir ļoti ambiciozs un sarežģīts uzdevums, pašvaldībai ir rūpīgi jāapsver šīs atbildības uzņemšanās. Vai sociālā uzņēmējdarbība kļūs svarīgāka un spēcīgāka nacionālā līmenī, gūs impulsu attīstībai sociālās ekonomikas nozarē, lielā mērā ir atkarīgs no vietējo varas iestāžu attieksmes un rīcības

Neraugoties uz Ventspils pilsētā un novadā lielu daudzumu reģistrēto nevalstisko organizāciju skaitu, kā darba tirgus dalībniekus var atzīmēt pavisam nedaudz organizāciju. Sociālā uzņēmējdarbība ir tikai sākuma stadijā, šobrīd kā iespējamās dalībnieku var uzskatīt aktīvākās nevalstiskās organizācijas “*Žēlsirdības māja*”, “*Cimdiņš*”, “*Spēkuguns*”, “*Atvērtās durvis*”, “*Spārni*”, “*Paspārne*”. Ikviens no šīm organizācijām sadarbojas ar Ventspils Domes un sadarbību vērtē visnotaļ pozitīvi. Ventspils Domei jāapsver ne tikai pakalpojumu pirkšana un finansiāla atbalsta sniegšana nevalstiskajam sektoram, bet arī jāizvērtē, kuras NVO ir mērķa grupa ar potenciālu attīstīties kā sociālajiem

uzņēmumiem, un tāpēc mērķtiecīgi jāplāno citi sociālo uzņēmējdarbību attīstošie mehānismi.

Secinājumi un priekšlikumi

Conclusions and proposals

1. Ventspils pilsētas attīstības programmas 2014.-2020.gadam sadaļā E-3-2 rīcības plānam nodarbinātības veicināšanai būtu nepieciešama īstenošanas pārbaude un aktualizācija, it īpaši uzdevumā, kas attiecas uz pieprasījuma atbilstošu profesionālu speciālistu sagatavošanu. Secinājums balstīts uz uzņēmēju aptaujas rezultātiem, kur kā nozīmīga problēma ir atzīmēta kvalificēta, darba tirgus prasībām atbilstoša darbaspēka trūkums. Pētījums uzrāda, ka uzņēmēji un nevalstiskā sektora dalībnieki, kas nodarbojas ar saimniecisko darbību, sadarbību ar Domi novērtē visnotaļ pozitīvi, tomēr nepieciešams izstrādāt konkrētu rīcības plānu, kurā ir vienoti mērķi un kritēriji bezdarba mazināšanai un dažādu sociālo grupu integrēšanai darba tirgū.
2. Visaugstākais bezdarbnieku īpatsvars ir starp iedzīvotājiem ar profesionālo vidējo izglītību un starp pirmspensijas vecuma personām (vecuma grupās 55-59 gadi un 50-54 gadi). Lielākā daļa no problēmu grupu bezdarbniekiem sastāda ilgstošie bezdarbnieki, bezdarbnieki pirmspensijas vecumā un bezdarbnieki ar invaliditāti. Attiecībā uz sociāli neaizsargāto grupu nodarbinātību, analizējot uzņēmumos pieņemto personu ar invaliditāti skaitu (40), salīdzinājumā ar Nodarbinātības valsts aģentūras Ventspils filiāles apkopoto statistiku uz 2017. gada 31. janvāri, secināms, ka uzņēmumos pieņemto minētās grupas darbinieku skaits proporcionāli pret NVA uzrādīto statistiku šajā grupā ir salīdzinoši zems. NVA statistika apliecina, ka minētā grupa ir trešā lielākā bezdarbnieku problēmu grupa Ventspils novadā. Attiecībā uz sociāli neaizsargāto grupu nodarbinātību, analizējot uzņēmumos pieņemto personu skaitu no sociāli neaizsargātām grupām var secināt, ka nepieciešami pārdomāti un rezultatīvāki pasākumi pirmspensijas un personu ar invaliditāti iesaistei darba tirgū.
3. Pētījuma rezultātā var secināt, ka Ventspils pilsētas un novada uzņēmēji kā būtisku problēmu uzskata – kvalificēta, specifiskām amata prasēm un zināšanām atbilstoša darbaspēja trūkumu. Datu analīze liecina, nodarbinātības problēmas nav tik daudz meklējamas darbaspēka pieejamībā - lielākai daļai nav neaizpildītu vakancu ilgāk par 3 mēnešiem, kā arī lielākai daļai darbinieku skaits nav samazinājies pēdējo 2 gadu laikā – bet problēma ir darbaspēka kvalifikācijā un motivācijā. Būtisks ir novērojums – jo uzņēmums nodarbina lielāku skaitu darbinieku, jo vairāk saskaras ar kvalificēta darbaspēka trūkumu.

4. Vietējai pašvaldībai ir būtiska nozīme sociālo uzņēmumu attīstības un izveides veicināšanā, kā arī atbalsta mehānismu izveidē. Pašvaldībai ir jāieplāno atbalsta mehānismi sociālās uzņēmējdarbības attīstībai, lai sekmētu iekļauties darba tirgū sociāli ievainojamām iedzīvotāju grupām un tiktu mazināts nabadzības risks.
5. Dome veiksmīgi sadarbojas ar nodibinājumu “Ventspils Augsto tehnoloģiju parks”, kas nodrošina infrastruktūru un atbalsta pakalpojumus augsto tehnoloģiju nozaru uzņēmumu attīstībai un kura telpās darbojas pilsētas biznesa inkubators un ideju studija (pirms-inkubators) ar mērķi palīdzēt biznesa ideju autoriem definēt savu ideju. Domei jāizvērtē, kā VATP pieredzi un kompetences varētu izmantot kā starta pozīciju jauniem sociālajiem uzņēmumiem.
6. Ņemot vērā, ka kopumā aptaujas jautājumos gan par nodarbinātību uzņēmumā, gan attiecībā uz Ventspils uzņēmējdarbības vidi, dominē atbildes, kas saistītas ar kvalificēta darbaspēka/darbaspēka ar atbilstošām prasmēm un zināšanām trūkumu, turpmākos pētījumos svarīgi būtu noskaidrot, darbaspēka atbilstību darba tirgus prasībām Ventspilī, kā arī kādas prasmes un zināšanas uzņēmējiem ir nepieciešamas. Būtiski būtu apzināt iespējas pārkvalifikācijai un kvalifikācijas paaugstināšanai, sadarbībā ar izglītības institūcijām, Nodarbinātības valsts aģentūru un nevalstisko sektoru.
7. Priekšlikums – veikt kvalitatīvo pētījumu (iespējams fokusgrupu vai padziļināto interviju veidā), noskaidrojot lielo un vidējo Ventspils uzņēmēju viedokli par šādiem jautājumiem:
 - Esošo darbinieku kvalifikācijas atbilstība amatam
 - Nepieciešamās zināšanas un prasmes/kvalifikācija darbiniekiem
 - Darbaspēka pieprasījums nākotnē – profesijas, darbinieku skaits, pamatojums pieprasījumam.
 - Potenciālās sadarbības iespējas darbinieku pārkvalifikācijai un kvalifikācijas paaugstināšanai
 - Pirmspensijas vecuma personu un personu ar invaliditāti nodarbinātība – iemesli nenodarbināšanai, problēmas, iespējamie risinājumi.

Summary

The major problem of the labour market is quantitative and qualitative differences between labour demand and supply. The aim of the paper is to present the research for identification and analysing of specific problems in the Ventspils region labour market and propose solutions for situation improvement. The research is based on both secondary data analysis (analysis of statistical data and policy documents) and primary

data analysis obtained in a quantitative survey (questionnaire survey of entrepreneurs – employers) and a qualitative survey (interviews with representatives of the non-governmental sector).

The highest unemployment rate was between persons with professional education and persons of pre-retirement age (age groups 55 – 59 years and 50 – 54 years). The highest proportion of unemployment was observed for the long – term unemployed, persons of pre-retirement age and persons with disabilities.

The survey of entrepreneurs showed that the main problems of the labour market related to lack of a qualified, skilled and motivate labour force. An analysis of employment of persons from socially vulnerable groups has showed that there are necessary well-considered and result - oriented measures for involvement into employment of persons at pre-retirement age and persons with disabilities. One of the mechanisms is social entrepreneurship. In this process, an important role is played by the non-governmental sector and support measures from the municipality. Considering the results of the research (factors of lack of qualified and skilled employees both at the enterprise level and at the regional level), in further researches, it is important to find out the workforce compliance with employers' demands and also skills and knowledge necessary for employers. The important role for skills and knowledge development take lifelong learning and workplace learning. Therefore, there are necessary to promote links between vocational education, training and skills development and effective partnerships between governments, employers' and workers' organizations, and training institutions.

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MENTORINGA NEPIECIEŠAMĪBA RĒZEKNES NOVADA UZNĒMUMU ATTĪSTĪBAI

Necessity of Mentoring for the Development of Enterprises in Rezekne Municipality

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Abstract. *The quality of the entrepreneurial environment is one of the preconditions for the competitiveness of the national economy of Latvia – the better conditions the government can create for entrepreneurs, the more investments are expected to be made in the national economy, which, in its turn, creates new jobs and raises the standard of living for the population. Mentoring is one of the most effective ways of transferring successful experience to enterprises by sharing knowledge, practical experience and contacts. In entrepreneurship, mentoring is mainly used to promote the growth of new and inexperienced enterprises. Cooperation between a mentor and a mentee creates opportunities for the growth and development of the mentee. The paper is based on the implementation results for the research grant "Mentoring Opportunities for Entrepreneurship Development in Rezekne Municipality". The research aim is to examine the necessity of mentoring for the development of enterprises in Rezekne municipality. The research found that the difference between the numbers of registered and liquidated enterprises was insignificant. A survey of entrepreneurs revealed that the key factors that contributed to starting up a business were an opportunity to provide for the family, an opportunity to be independent and an opportunity to earn higher income. Upon starting up a business, potential mentors faced a lack of information/advice. Mentees, however, admitted that a lack of relevant experience and entrepreneurial ability was one of the most significant barriers to entrepreneurship development. The authors believe that mutual communication between potential mentors and mentees could avoid a lack of information/advice the mentees face, and sharing experience could contribute to the entrepreneurial ability of the mentees. The research employed the following methods: monographic and descriptive, analysis and synthesis, statistical analysis and a sociological method – a survey of entrepreneurs. The research was done based on research papers, data of the Central Statistical Bureau of Latvia and other information sources.*

Keywords: *entrepreneurship mentee, mentor, mentoring.*

Ievads *Introduction*

Uzņēmējdarbības vides kvalitāte ir viens no priekšnosacījumiem Latvijas tautsaimniecības konkurētspējīgai attīstībai – jo labākus apstākļus valsts spēj radīt uzņēmējiem, jo lielākas investīcijas var sagaidīt tautsaimniecībā, kas savukārt nozīmē jaunu darba vietu rašanos un labklājību iedzīvotājiem (Ekonomikas ministrija, 2018). Valsts sekretāru sanāksmē izsludinātā Uzņēmējdarbības vides pilnveidošanas pasākumu plāna (UVUPP) projektā (Plāna projekts..., 2018) izvirzīts mērķis: uzņēmējiem pievilcīga uzņēmējdarbības vide: pieejami un saprotami pakalpojumi, mazāks administratīvais slogs. UVUPP veido 12 uzņēmējdarbības videi būtiskas sadaļas jeb rīcības virzieni, kas ietver 47 pasākumus ar izpildes termiņu līdz 3 gadi.

Mūsdienās par nozīmīgākajiem faktoriem uzņēmējdarbības attīstībai reģionos kļūst konkurētspēja un prasme ātri reaģēt uz pārmaiņām. Kā liecina Eiropas valstu prakse, uzņēmēju pieredzes pārnese jeb mentoringa komercdarbībā ir viens no efektīvākajiem veidiem, kā veicināt jaunu komersantu skaita pieaugumu un izaugsmi (Rivža, 2006). Mentoringa daudzās pasaules valstīs ir atzīts kā progresīvs biznesa izaugsmes instruments. Tā unikālā vērtība ir veiksmīgas pieredzes pārnese uzņēmumu vidū, aktīva dalīšanās zināšanās, pieredzē un kontaktos, kā arī atvērtas biznesa sadarbības kultūras veidošana. Galvenokārt to izmanto jaunu un mazāk pieredzējušu uzņēmumu attīstības sekmēšanai (Biznesa mentoru tīkla...). Tomēr jāatzīst, ka „mentoringa nav veiksmes atslēdzīna vai visu problēmu atrisinājums, bet iespēja uzzināt pieredzējušu uzņēmēju viedokli un padomu” (Asere, 2011).

Autores uzskata, ka, neskatoties uz mentoringa attīstību Latvijā, Rēzeknes novadā mentoringa tiek īstenots nepietiekoši un mentoringa uzņēmējdarbībā varētu būt viens no veidiem kā Rēzeknes novadā veicināt jaunu uzņēmēju skaita pieaugumu.

Pētījuma mērķis: izpētīt mentoringa nepieciešamību Rēzeknes novada uzņēmumu attīstībai.

Pētījuma uzdevumi:

1. Izpētīt mentoringa un uzņēmējdarbības attīstību vienojošos teorētiskos aspektus;
2. Izvērtēt uzņēmumu reģistrēšanas un likvidēšanas dinamiku Latvijā un Rēzeknes novadā;
3. Izvērtēt Rēzeknes novada mentoru un pieredzes pārņēmēju aptaujas rezultātus.

Pielietotās pētījuma metodes: monogrāfiski aprakstošā metode, analīze, sintēze, statistikas metode, socioloģiskā pētījuma metode – uzņēmēju aptaujas.

Pētījums veikts pamatojoties uz zinātnieku publikācijām, Centrālās Statistikas pārvaldes (CSP) un citiem informācijas avotiem.

Mentoringu un uzņēmējdarbības attīstību vienojošie teorētiskie aspekti *Theoretical aspects linking mentoring and entrepreneurship*

Mentoringu uzņēmējdarbībā ir sistemātiski veidotas attiecības, kas balstītas uz ilglaicīgu un brīvprātīgu atbalstu starp veiksmīgu uzņēmēju, kurš dalās savās zināšanās, pieredzē un uzskatos, un otru uzņēmēju, kurš ir gatavs un vēlas gūt pieredzi no šīs apmaiņas un bagātināt savu profesionalitāti (Konstantinova, 2007). Mentoringu ir būtībā darba attiecības starp diviem cilvēkiem, kas parasti izveidojas starp vecāku, daudz pieredzējušāku personu (mentoru) un jaunāku, mazāk kvalificētu personu (pieredzes pārņēmēju), tādējādi palīdzot pieredzes pārņēmējam pielāgoties uzņēmējdarbības videi, tam sniedzot padomus un norādījumus tā, lai pieredzes pārņēmējs iekļaujas organizācijā, virzās pa karjeras kāpnēm un izaug profesionālā un personiskā ziņā (Gisbert-Trejo, Landeta, Albizu, & Fernández-Ferrín, 2019). Mentoringu ir darba attiecības starp personu ar lielu pieredzi un zināšanām, un daudz jaunāku personu, kurai nepieciešama palīdzība, norādījumi un atbalsts, vērsta uz šīs personas karjeras, personisko un profesionālo attīstību (Fowler & O’Gorman, 2005). Aktivitātes mentoringā īsteno mentors un pieredzes pārņēmējs. Mentors – uzņēmējdarbībā pieredzējis, zināšanas uzkrājis uzņēmējs vai vadītājs, vai nozares speciālists, kas bez atlīdzības un no labas gribas velta savu laiku, pieredzi un ieteikumus, lai palīdzētu jaunajam uzņēmējam orientēties biznesa vidē un attīstīt savu darbību, palīdzot sasniegt viņa nospraustos mērķus. Pieredzes pārņēmējs – jaunais vai topošais uzņēmējs, kurš ar mentora atbalstu vēlas sākt vai attīstīt savu uzņēmumu, iepriekš definējot sadarbības ietvaros nepieciešamo atbalstu (Latvijas Investīciju..., 2009; Biznesa mentoru tīkla...). Mentoringu ir ilglaicīgas mentora un pieredzes pārņēmēja attiecības, kas apmierina vajadzību pēc attīstības, palīdz attīstīt pilnu potenciālu un dod labumu visām iesaistītajām pusēm. Mentori individuāli strādā ar uzņēmumu, lai izvērtētu biznesa darbību, problēmas vai attīstības potenciāla iespējas, dotu praktiskus padomus un ieteikumus biznesa attīstīšanai un konkrētai rīcībai (Norvēģijas finanšu..., 2014).

Zinātnieki pētījuši dažādus mentoringa kvalitāti ietekmējošos faktoros. Pētnieces (Leck & Orser, 2013) uzskata, ka uzticība identificējama kā efektīva mentoringa attiecību būtiska sastāvdaļa un mentoringa programmās būtu jāiekļauj aktivitātes, kas palīdz veidot un veicināt uzticību starp mentoru un pieredzes pārņēmēju. Pētījuma autores (Leck & Orser, 2013) pauž viedokli, ka „sieviešu skaits augstos amatos ir vēl aizvien salīdzinoši mazs. Mentoringu plaši izmanto kā mehānismu, kas palīdz sievietēm kāpt pa karjeras kāpnēm. Ja trūkst sieviešu dzimuma mentoru, tas bieži nozīmē to, ka pieredzes pārņēmējam sievietēm ir

vīriešu dzimuma mentori. Tāpēc ir ārkārtīgi svarīgi, ka vīriešu dzimuma mentori uzticas pieredzes pārņēmējam sievietēm tādā pat apmērā kā pieredzes pārņēmējiem vīriešiem un sniedz tiem visiem vienādas iespējas kāpt pa karjeras kāpnēm”. Atkarībā no pieredzes pārņēmēja un mentora dzimuma pastāv atšķirības mentoringa īstenošanā. Pētnieki (Fowler, Gudmundsson, & O’Gorman, 2007) ir atklājuši dažas ļoti svarīgas likumsakarības saistībā ar dzimumu un mentoringa funkcijām. Kas attiecas uz pieredzes pārņēmējiem, tad sieviešu dzimuma mentores sniedza personisku un emocionālu atbalstu vairāk, nekā to darīja vīriešu dzimuma mentori; sieviešu dzimuma mentores veicināja pieredzes pārņēmēju karjeras attīstību vairāk nekā vīriešu dzimuma mentori, veicināja sieviešu dzimuma pieredzes pārņēmēju karjeras attīstību vairāk nekā vīriešu dzimuma pieredzes pārņēmēju karjeras attīstību; kā arī veica sieviešu dzimuma pieredzes pārņēmēju lomu modelēšanu labāk nekā vīriešu dzimuma pieredzes pārņēmēju lomu modelēšanu. Taču, kas attiecas uz mentoriem, tad nekādu lielu atšķirību starp funkcijām, ko tie nodrošināja gan sieviešu, gan vīriešu dzimuma pieredzes pārņēmējiem, nebija. Skatot apmierinātību ar mentoringu caur dzimuma prizmu, pētnieki (Ortiz-Walters, Eddleston, & Simione, 2010) uzskata, ka tie vīriešu dzimuma pieredzes pārņēmēji, kuri spēja dziļi iejusties savā karjeras lomā, bija vairāk apmierināti ar tiem mentoriem, kuri atbalstīja to karjeras attīstību. Un otrādi, sieviešu dzimuma pieredzes pārņēmējas, kuras mēdza mērīt savus karjeras panākumus, balstoties uz sociāli emocionāliem kritērijiem, jutās vairāk apmierinātas ar tiem mentoriem, kuri sniedza psihosociālu atbalstu. Pētot ideāla mentora prototipu, pētnieki (Bailey, Voyles, Finkelstein, & Matarazzo, 2016) norāda, ka jautāti par savu ideālo mentoru, aptaujātie uzsvēra tā sniegto atbalstu, starppersonālo “siltumu” un ētisko godīgumu. Nosauktie ideāla mentora prototipi atšķīrās atkarībā no aptaujāto tautības un dzimuma, un arī atkarībā no tā, kā jautājums tika uzdots. Pētnieki (Gisbert-Trejo et al., 2019) identificējuši 29 mentoru raksturojošas īpašības (vecums, dzimums, darba pieredze, motivācija būt par mentoru u.c.). Prakse liecina (O’Bannon, 2018), ka nepastāv statistiski nozīmīgas atšķirības klientu apmierinātībā atkarībā no tā, kāda dzimuma mentors strādāja pie uzņēmēja. Mazajos uzņēmumos, pieredzes pārņēmēji pirmām kārtām vēlējas tādu mentoru, kas tajos ieklausās un precīzi novērtē to attīstības līmeni. Viņi vēlējas mentoru, kas ir izpalīdzīgs un sniedz labus padomus, izrādot cieņu.

Autores secina, ka mentoringa ir zināšanu pārneses process, kuru īsteno pieredzējuši mentori un pieredzes pārņēmēji, un nav būtisks mentora dzimums. Uzņēmējdarbībā mentoringa attiecību pamatā ir mentora zināšanas un pieredze, kas ļauj pieredzes pārņēmējam izvērtēt viņa rīcībā esošās iespējas, resursus un veicināt to izmantošanu konkrētas problēmas risinājumam vai mērķa sasniegšanai.

Globālā mērogā, uzņēmējdarbībai ir liela nozīme darbavietu radīšanā. Ja uzņēmēji darbojas veiksmīgi, ekonomika plaukst. Taču uzņēmējiem ir

nepieciešama atbalsta sistēma, kas attīsta to potenciālu un arī vidi, kas ir piemērota ilgtspējīgai uzņēmējdarbībai. Viena no galvenajām aktivitātēm, no kā uzņēmēji gūst labumu, ir mentorings. Taču izpratne par mentoringu, kādu labumu no tā var gūt un tā svarīgumu vairumā attīstības valstu ir nepietiekama (Wachira, 2018). Mentora un pieredzes pārņēmēja spēcīgās savstarpējās attiecības rada drošu vidi pieredzes pārņēmēja augšanai un attīstībai (Sullivan, 2000). Ar mentoringa palīdzību topošie profesionāļi ne tikai iegūst pieredzi un zināšanas, kas nepieciešamas darbiniekiem, bet arī paaugstina varbūtību, ka mazie uzņēmumi gūs panākumus. Piesaistot mentoru, varbūtība, ka uzņēmumi gūs panākumus pieaug vismaz piecas reizes. Jāatzīmē, ka trīs galvenās problēmas, saistībā ar ko uzņēmēji lūdza palīdzību saviem piesaistītajiem mentoriem bija sekojošas: cilvēkresursi (61%); izaugsme/biznesa paplašināšana (59%) un atbalsts uzņēmējdarbības uzsākšanai (53%) (O'Bannon, 2018).

Autores piekrīt iepriekšminētajiem apgalvojumiem un uzskata, ka mentorings ir viens no efektīvākajiem veidiem, kā veicināt jaunu uzņēmēju skaita pieaugumu un izaugsmi. Pieredzējušiem uzņēmējiem sniedzot atbalstu iesācējiem uzņēmējdarbībā, kopumā tiek paplašināta uzņēmējdarbība un sekmēta tās attīstība. Mentorings sniedz pozitīvu ieguldījumu valsts tautsaimniecības attīstībā, jo veidojas jauni uzņēmumi, samazinās bezdarbnieku skaits un paaugstinās uzņēmumu konkurētspēja.

Pētījuma metodoloģija *Research methodology*

Uzņēmumu reģistrēšanas un likvidēšanas dinamikas izpētei Latvijā un Rēzeknes novadā 2013.-2018.gadā autores izmantoja Lursoft statistiku.

Pētījuma ietvaros tika veiktas uzņēmēju – mentoru un pieredzes pārņēmēju aptaujas, ar mērķi apkopot informāciju, datus par uzņēmējiem, kuri vēlētos piedalīties biznesa mentoru tīkla aktivitātēs Rēzeknes novadā.

Aptaujas anketas tika izplatītas elektroniski, personīgi uzrunājot Rēzeknes novada uzņēmumu vadītājus, veicot telefonintervijas, kā arī anketas tika publicētas Rēzeknes novada pašvaldības sociālā tīkla Facebook lapā. Tika izplatītas divu veidu aptaujas anketas, uzrunājot kā esošos uzņēmējus, kas būtu gatavi kļūt par mentoriem, tā arī topošos uzņēmējus, kuri vēlētos mācīties un iedvesmoties no pieredzējušiem uzņēmējiem.

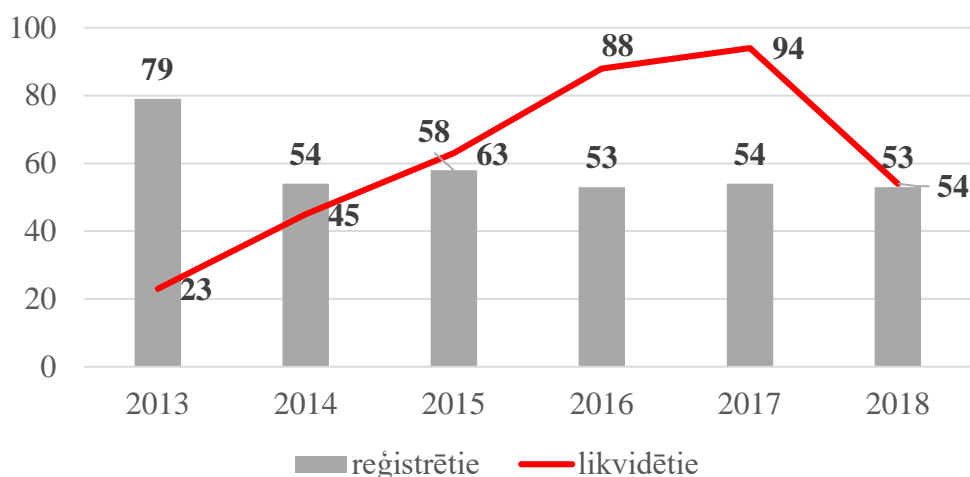
Pētījuma realizēšanas laiks: 2018. gada novembris – 2019.gada janvāris. Pētījuma datu apstrādei izmantotas sociālo zinātņu statistikas paketes SPSS (Statistical Package for the Social Science) un Microsoft Excel analīzes rīki.

Pētījuma rezultāti Research results

Iedzīvotāju ekonomisko aktivitāti atspoguļo uzņēmumu reģistrēšanas un likvidēšanas dinamika. Laika periodā no 2013.gada līdz 2018.gadam 2016.-2018.gadā likvidēto uzņēmumu skaits pārsniedz reģistrēto uzņēmumu skaitu. Likvidēto uzņēmumu skaits reģistrēto uzņēmumu skaitu 2016.gadā pārsniedza par 1022 uzņēmumiem, 2017.gadā par 6270 uzņēmumiem un 2018.gadā par 10086 uzņēmumiem (Lursoft, 2019a).

Tiek prognozēts, ka tendence saglabāsies. Uzņēmumu skaita samazināšanās saistīta ar neaktīvo uzņēmumu likvidāciju, kam iemesls ir neveiksmīga uzņēmējdarbība, biznesa izmaksu pieaugums vienlaikus ar iedzīvotāju pirktspējas pārmaiņām un valstī dzīvojošo skaita sarukumu. No Rīgas attālākajos reģionos par būtiskāko tiek minēts tirgus sarukums un patērētāju mazā pirktspēja. Proti, ja patērētāju skaits Latvijā kopumā sarūk, tad arī loģiski, ka tirgotājiem pieaug konkurence un kāds jau to nespēj izturēt (Ķirsons, 2018).

Kopš 2015. gada Rēzeknes novadā likvidēto uzņēmumu skaits, līdzīgi kā Latvijā kopumā, pārsniedz reģistrēto uzņēmumu skaitu (1.attēls).



1.attēls. **Reģistrēto un likvidēto uzņēmumu skaits Rēzeknes novadā 2013.-2018.gadā**
(autoru izveidots pēc Lursoft, 2019b)

Figure 1 **Number of registered and liquidated enterprises in Rezekne municipality in the period 2013-2018** (authors' construction based on Lursoft, 2019b)

Rēzeknes novadā negatīvā starpība starp reģistrēto un likvidēto uzņēmumu skaitu, salīdzinot ar Latvijā kopumā reģistrēto un likvidēto uzņēmumu skaitu, 2018.gadā samazinājās. 2018.gadā likvidēto uzņēmumu skaits tikai par 1 uzņēmumu pārsniedza reģistrēto uzņēmumu skaitu.

Analizējot iemeslus, kāpēc pēdējos gados Latvijā, tostarp arī Rēzeknes novadā, ievērojami palielinājies likvidēto uzņēmumu skaits, jāvērs uzmanību uz

faktu, ka pēdējos gados atbildīgie reģistri aktīvi likvidē uzņēmumus, kuri ilgstoši pastāv bez valdes vai arī vairākus gadus nav iesnieguši finanšu pārskatus. Tāpēc pastāvošais process būtu jāuztver kā uzņēmējdarbības vides sakārtošana, bez iemesla uztraukumiem par strauju biznesa situācijas pasliktināšanos Latvijā, kā rezultātā pēkšņi tiktu likvidēti uzņēmumi (Rēzeknes novads, 2018).

Lursoft dati uz 2019.gada janvāri liecina, ka Rēzeknes novadā jebkad reģistrēti 2875 uzņēmumi, no tiem likvidēti 1204 uzņēmumi un par aktīviem uzņēmumiem jeb reģistrētiem un nelikvidētiem uzņēmumiem uzskatāms 1671 uzņēmums jeb 58,12% no kopējā reģistrēto uzņēmumu skaita (Lursoft, 2019c).

Pēdējo desmit gadu laikā Rēzeknes novadā reģistrēti 602 jauni uzņēmumi, bet likvidēti 464, kas nozīmē, ka faktiski uzņēmumu skaits novadā kopš 2008. gada palielinājies par 138..... Būtisks pārsvars starp Rēzeknes novada uzņēmumiem ir zemnieku saimniecībām, kas veido 55,34% no visiem Rēzeknes novadā reģistrētajiem uzņēmumiem, 32,19% – sabiedrības ar ierobežotu atbildību (Rēzeknes novads, 2018).

Pētījuma ietvaros veiktās uzņēmēju – mentoru un pieredzes pārņēmēju aptaujas aktivitāte Rēzeknes novadā bija neliela. Tika saņemtas 11 esošo uzņēmēju anketas (mentori) un 19 topošo vai jauno uzņēmēju anketas (pieredzes pārņēmēji).

Rēzeknes novada uzņēmēju – mentoru respondentu struktūrā lielāko īpatsvaru sastādīja lauksaimniecības, mežsaimniecības un zivsaimniecības, un vairumtirdzniecības un mazumtirdzniecības; automobiļu un motociklu remonta uzņēmumi (27,3%). Raksturojot pašreizējo uzņēmējdarbības virzienu 36,4% respondentu atzīmēja, ka iepriekš darbojušies citā, tādas pašas pamatdarbības nozares uzņēmumā. 90,9% respondentu atzīmēja, ka viņiem bez uzņēmējdarbības ir cita darba pieredze, uzņēmuma darbības ilgums: 6 – 10 gadi (45,5%), vidējais darbinieku skaits: 0 – 5 darbinieki (72,7%). Aptaujā vairāk respondenti bija vīrieši (81,8%), lielāko īpatsvaru sastādīja vecuma grupa 41 – 45 gadi (36,4%) ar bakalaura grādu vai otrā līmeņa profesionālo augstāko izglītību (36,4%) dabas zinātnēs (36,5%).

Rēzeknes novada uzņēmēju – pieredzes pārņēmēju respondentu struktūrā lielāko īpatsvaru sastādīja lauksaimniecības, mežsaimniecības un zivsaimniecības, un izmitināšanas un ēdināšanas pakalpojumu uzņēmumi (21,1%). 42,1% respondentu, raksturojot uzņēmējdarbības pieredzi norādīja, ka uzņēmums ir izveides procesā, Aptaujā relatīvi vairāk respondenti bija sievietes (52,6%), lielāko īpatsvaru sastādīja vecuma grupa 26 – 30 gadi (31,6%) ar bakalaura grādu vai otrā līmeņa profesionālo augstāko izglītību (42,1%) sociālajās zinātnēs (36,5%).

Pieredzes pārņēmēju atbildēs uz aptaujas jautājumu „*Kas Jums būtu svarīgi izvēloties mentoru*” dominēja atbildes uzņēmējdarbības pamatdarbības nozare, kas atbilst manai (28,6%) un nostrādāto gadu skaits uzņēmējdarbībā (23,8%).

Mentora vecums, dzimums un ieņemamais amats šajā gadījumā netika atzīti kā būtiskākie faktori mentoringā uzņēmējdarbībā.

Aptaujas jautājuma „Kas Jūs pamudināja uzsākt savu uzņēmējdarbību” mērķis bija noskaidrot uzņēmējdarbības uzsākšanas iemeslus. Dotajam jautājumam tika piedāvāti atbilžu varianti, no kuriem varēja izvēlēties vairākas atbildes, kā arī respondentiem bija iespēja sniegt savu atbildi (skat. 1.tabulu).

1.tabulas dati liecina, ka visvairāk respondentu, kā potenciālie mentori un pieredzes pārņēmeji, atzīmēja, ka tā ir iespēja uzturēt ģimeni, iespēja būt neatkarīgam, kā arī iespēja gūt lielākus ienākumus. Mentori, izvēloties atbildi „citi” norādīja: vēlēšanās plānot savu laiku pašam un apņēma strādāt un pelnīt citiem.

1.tabula. Faktori, kuri pamudināja uzsākt savu uzņēmējdarbību, % (autoru izveidota)
Table 1 Factors that contributed to starting up a business, % (authors' construction)

Faktori	Mentori (n=11)	Pieredzes pārņēmeji (n=19)
Iespēja darīt darbu, kas patīk	14,3	13,6
Iespēja būt neatkarīgam	19	18,2
Iespēja gūt lielākus ienākumus	14,3	13,6
Iespēja sevi realizēt	11,9	11,4
Iespēja uzturēt ģimeni	21,4	20,5
Iespēja paplašināt paziņu loku	7,1	6,8
Iespēja darīt darbu sabiedrības labā	4,8	4,5
Iespēja sajūst risku	2,4	2,3
Cits	4,8	9,1
Kopā	100,0	100,0

Nākošajā aptaujas jautājumā potenciālajiem mentoriem un pieredzes pārņēmejiem bija jāizvērtē īpašības, kas, pēc viņu domām, palīdz gūt panākumus uzņēmējdarbībā un vadībā. Dotajam jautājumam tika piedāvāti atbilžu varianti, no kuriem varēja izvēlēties vairākas atbildes, kā arī respondentiem bija iespēja sniegt savu atbildi (skat. 2.tabulu).

2.tabulas dati liecina, ka visvairāk respondentu, kā potenciālie mentori, tā arī pieredzes pārņēmeji, kā svarīgākās īpašības uzsvēra mērķtiecību un neatlaidību. Potenciālie mentori atzīmēja arī strādīgumu, darba mīlestību un zināšanas un izglītību. Savukārt pieredzes pārņēmeju vērtējumā par vienlīdz svarīgām īpašībām tika atzītas strādīgums, darba mīlestība un atbildības un pienākuma sajūta. Mentori, izvēloties atbildi „citas” norādīja: valodu zināšanas, optimismu un darbinieku vadību. Savukārt pieredzes pārņēmeji atzīmēja, ka jāiegulda darbā sirdi, nepieciešama veiksmē jeb būt īstajā laikā īstajā vietā, kontakti un tikai zināšanas un pieredze.

2.tabula. *Īpašības, kas palīdz gūt panākumus uzņēmējdarbībā un vadībā*
(autoru izveidota)

Table 2 *Personality traits helping to succeed in business and management*
(authors' construction)

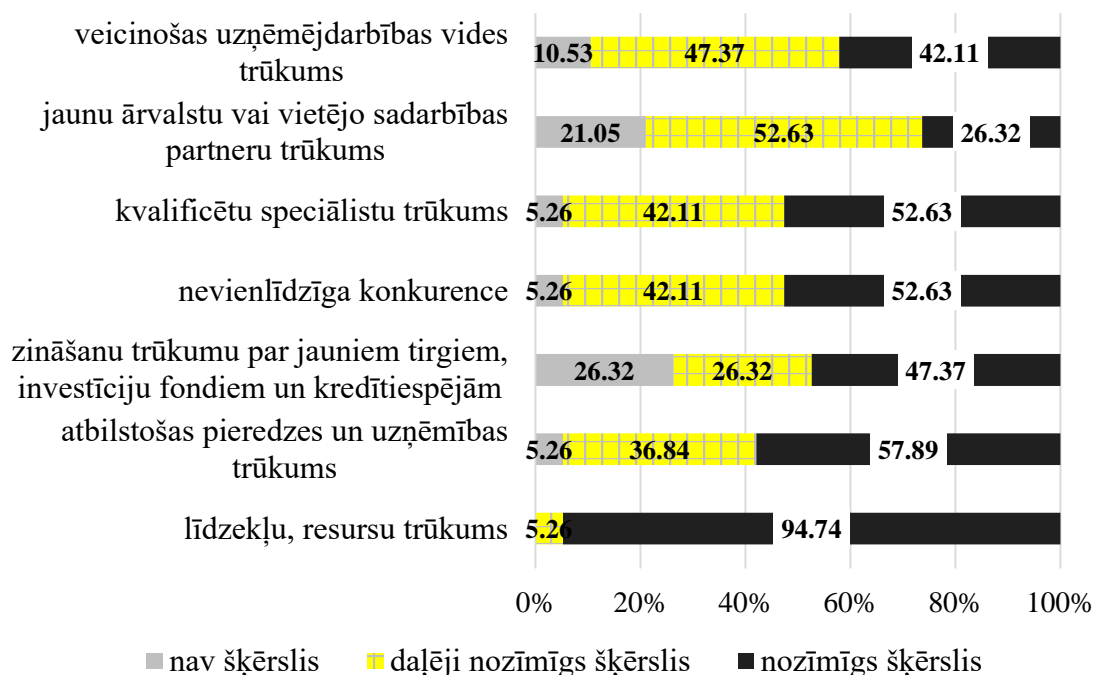
Īpašība	Mentori (n=11)	Pieredzes pārņēmēji (n=19)
Mērķtiecība un neatlaidība	24,4	21,4
Komunikabilitāte un saskarsmes spējas	9,8	12,5
Zināšanas un izglītība	14,6	12,5
Strādīgums, darba mīlestība	19,5	16,1
Atbildības un pienākuma sajūta	4,9	16,1
Elastība, pielāgošanās spējas	9,8	5,4
Tieksme riskēt	7,3	8,9
Cita	9,8	7,1
Kopā:	100,0	100,0

Potenciālie mentori, vērtējot grūtības un problēmas ar kurām viņi saskārušies uzsākot savu uzņēmējdarbību, kā būtiskāko atzīmēja kapitāla un finanšu līdzekļu trūkumu (31,3%) un informācijas/padomu trūkumu (18,8%). Vienādu novērtējumu (9,4%) ieguva kontaktu un sadarbības trūkums, grūtības savienot ģimenes dzīvi un darbu, darbaspēka piesaistes problēmas un problēmas ar produkta realizēšanu.

Globālās konkurētspējas ziņojumi 2015.-2017.gadā (Schwab, 2015; 2016; 2017), liecina, ka Latvijā uzņēmējdarbībai ir divi būtiskākie šķēršļi: nodokļu likmes un neefektīvā valdības birokrātija. Jāatzīmē, ka šo faktoru negatīvais novērtējums 2017.gadā, salīdzinot ar 2015.gadu, palielinājās. Nodokļu likmes kā negatīvā faktora pieaugums veidoja 2,8%, bet neefektīva valdības birokrātija – 3,7%. Piekļuve finansējumam kā trešais būtiskākais uzņēmējdarbības šķērslis bija 2015.gadā, ko 2016.-2017.gadā nomainīja nodokļu likumdošana. “Baltic International Bank Latvijas barometra” 2018.gada marta pētījuma rezultāti apstiprina iepriekšminētos šķēršļus uzņēmējdarbībai attīstībai. Latvijas iedzīvotāji par galvenajiem šķēršļiem, kas kavē uzņēmuma ilgtspēju uzskata augstos nodokļus (62%), mainīgos likumus (t.sk. nodokļus) un lielo birokrātijas slogu (51%) (Baltic International Bank..., 2018). Savukārt Swedbank 2018.gada pavasarī veiktā pētījuma rezultāti par Latvijas iedzīvotāju biznesa uzsākšanas plāniem liecina, ka, galvenie šķēršļi, kas kavē uzņēmējdarbības uzsākšanu, pēc Latvijas iedzīvotāju domām: sākumkapitāla nepietiekamība (56%), nepiemērota ekonomiskā situācija (40%) un zināšanu trūkums (25%). Kapitāla pieejamība vēl joprojām tiek uzskatīta par būtisku šķērslis (Swedbank, 2018).

Pieredzes pārņēmēji, vērtējot aptaujas anketā piedāvātos šķēršļus uzņēmējdarbības attīstībai tos vērtēja kā „nav šķērslis”, „daļēji nozīmīgs šķērslis” un „nozīmīgs šķērslis” (skat. 3.attēlu).

Vērtējot uzņēmējdarbības attīstībā nozīmīgākos šķēršļus pēc pieredzes pārņēmēju domām, kā visnozīmīgākie tika atzīti līdzekļu, resursu trūkums un atbilstošas pieredzes un uzņēmības trūkums. Vērtējot galveno uzņēmējdarbības šķērslī “līdzekļu, resursu trūkums”, autores uzskata, ka mentora padomi būtu lietderīgi arī šajā jomā, jo iespējas piesaistīt finansējumu uzņēmējdarbībai, ir samērā plašas, un mentors var ieteikt labākos veidus finansējuma avotu izvēlē un finansējuma izveidē. Netiek arī izslēgta varbūtība, ka mentora – pieredzes pārņēmēja attiecību noslēgumā mentors var kļūt par pieredzes pārņēmēja sadarbības partneri vai investoru.



2.attēls. Nozīmīgāko šķēršļu uzņēmējdarbības attīstībā novērtējums Rēzeknes novadā, pieredzes pārņēmēju aptauja, n=19 (autoru izveidots)

Figure 2 Percentage breakdown of ratings of the most significant barriers to entrepreneurship development in Rēzekne municipality, a survey of mentees, n=19 (authors' construction)

Autores uzskata, ka Rēzeknes novadā mentoringa uzņēmējdarbībā sekmētu mazāk pieredzējušu uzņēmumu attīstību. Abpusēja komunikācija starp potenciālajiem mentoriem un pieredzes pārņēmējiem novērstu informācijas/padomu trūkumu, paplašinātu potenciālo sadarbības partneru loku, veicinot privātā uzņēmuma konkurētspēju un dalīšanās ar pieredzi vairotu uzņēmību.

Secinājumi **Conclusions**

Mentoring ir viens no efektīvākajiem veidiem, kā veiksmīgu pieredzi pārnest uzņēmumu vidū, aktīvi daloties ar zināšanām, pieredzi un kontaktiem. Mentoringu uzņēmējdarbībā galvenokārt izmanto jaunu un mazāk pieredzējušu uzņēmumu attīstības sekmēšanai.

Rēzeknes novadā negatīvā starpība starp reģistrēto un likvidēto uzņēmumu skaitu, salīdzinot ar Latvijā kopumā reģistrēto un likvidēto uzņēmumu skaitu, ir nelielas. 2018.gadā likvidēto uzņēmumu skaits tikai par 1 uzņēmumu pārsniedza reģistrēto uzņēmumu skaitu.

Uzņēmējdarbības uzsākšanu galvenie rosinošie faktori kā potenciālo mentoru, tā arī pieredzes pārņēmēju skatījumā: iespēja uzturēt ģimeni, iespēja būt neatkarīgam, kā arī iespēja gūt lielākus ienākumus. Izvērtējot īpašības, kas palīdz gūt panākumus uzņēmējdarbībā un vadībā, kā potenciālie mentori, tā arī pieredzes pārņēmēji, kā svarīgākās īpašības uzsvēra mērķtiecību un neatlaidību. Potenciālie mentori atzīmēja arī strādīgumu, darba mīlestību un zināšanas un izglītību. Savukārt pieredzes pārņēmēju vērtējumā par vienlīdz svarīgām īpašībām tika atzītas strādīgums, darba mīlestība, atbildības un pienākuma sajūta.

Potenciālie mentori, vērtējot grūtības un problēmas ar kurām viņi saskārušies uzsākot savu uzņēmējdarbību, kā būtiskāko atzīmēja kapitāla un finanšu līdzekļu trūkumu, un informācijas/padomu trūkumu. Vienādu novērtējumu ieguva kontaktu un sadarbības trūkums, grūtības savienot ģimenes dzīvi un darbu, darbaspēka piesaistes problēmas un problēmas ar produkta realizēšanu. Pieredzes pārņēmēji, vērtējot uzņēmējdarbības attīstībā nozīmīgākos šķēršļus, kā visnozīmīgākos atzina līdzekļu, resursu trūkumu un atbilstošas pieredzes un uzņēmības trūkumu.

Rēzeknes novadā mentoringu uzņēmējdarbībā sekmētu mazāk pieredzējušu uzņēmumu attīstību. Abpusēja komunikācija starp potenciālajiem mentoriem un pieredzes pārņēmējiem novērstu informācijas/padomu trūkumu un dalīšanās ar pieredzi vairotu uzņēmību.

Summary

The quality of the entrepreneurial environment is one of the preconditions for the competitiveness of the national economy of Latvia – the better conditions the government can create for entrepreneurs, the more investments are expected to be made in the national economy, which, in its turn, creates new jobs and raises the standard of living for the population. Mentoring is one of the most effective ways of transferring successful experience to enterprises by sharing knowledge, practical experience and contacts. In entrepreneurship, mentoring is mainly used to promote the growth of new

and inexperienced enterprises. Cooperation between a mentor and a mentee creates opportunities for the growth and development of the mentee. The paper is based on the implementation results for the research grant "Mentoring Opportunities for Entrepreneurship Development in Rezekne Municipality". The research aim is to examine the necessity of mentoring for the development of enterprises in Rezekne municipality.

The difference between the numbers of registered and liquidated enterprises in Rezekne municipality, compared with those in Latvia as a whole, was insignificant. In 2018, the number of liquidated enterprises exceeded that of registered enterprises by only one unit.

The key factors that contributed to starting up a business from the perspectives of both potential mentors and mentees were as follows: an opportunity to provide for the family, an opportunity to be independent and an opportunity to earn higher income. Both the potential mentors and mentees stressed purposefulness and persistence as the most important traits that help to succeed in entrepreneurship and management. The potential mentors also noted diligence, love for work, knowledge and education. The mentees, however, rated diligence, love for work and the sense of responsibility and duty equally.

The most significant hardships and problems the potential mentors faced upon starting up a business were a lack of capital and funds and a lack of information/advice. A lack of contacts and cooperation, the difficulty in combining the family life with work, the difficulty in attracting a workforce and problems with sales were rated equally. The mentees admitted that a lack of funds and resources and a lack of relevant experience and entrepreneurial ability were the most significant barriers to entrepreneurship development.

In Rezekne municipality, mentoring in entrepreneurship could contribute to the development of inexperienced enterprises. Mutual communication between potential mentors and mentees could avoid a lack of information/advice the mentees face, and sharing experience could contribute to the entrepreneurial ability of the mentees.



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**FINANSES, GRĀMATVEDĪBA UN
NODOKĻU ADMINISTRĒŠANA**
*Finance, Accounting and Tax
Administration*

WORKING CAPITAL AS AN ENTERPRISE VALUE ASSESSMENT TOOL

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Abstract. *The valuation of an entity in off-exchange transactions involves the use of different techniques. Nevertheless, none of them guarantees the most accurate result. Therefore, it is very difficult to choose one evaluation method. Both investors, corporate managers, financial professionals, portfolio managers, and securities analysts should have a basic understanding of the process of evaluating companies. To that end, professionals recommend evaluating a company's financial reports to detect its financial position and solvency. According to the methods of financial analysis, working capital is one of the solvency ratios, which describes the value of resources that remain after the company's current liabilities have been bared. The research study is aimed at determining the impact of changes in working capital on the valuation of a company. In order to achieve the aim and confirm or deny the hypothesis, the methodological basis for the research study was developed, necessary information was collected, calculations were performed using data from companies listed on Nasdaq OMX Riga, and the obtained results were analysed. Literature review and economic and statistical analysis, including the SPSS method for assessing the effects of working capital and stock price, were used in the research.*

Keywords: *current assets, current liabilities, evaluation methods, working capital.*

Introduction

When purchasing stocks or shares of companies, determining their value is crucial. If a joint stock company is listed on a stock exchange, participants of a securities market determine the price. Listed stock prices can be found in stock exchange bulletins. However, if a joint stock company is not listed on a stock exchange, then the stocks or shares do not have such a fixed price, and a buyer and a seller must determine the price by other methods to be able to execute their transaction. The valuation of the stocks of private companies is required for stocks to be donated and bequeathed, companies to be merged, when stocks are received instead of cash, stocks are presented as collateral for credit, and new stocks are issued. There is a similar situation for limited liability companies when shares thereof are valued.

A choice of an evaluation method is the major problem in valuing stocks or shares. There are several approaches available: price-earnings ratio method; return on capital employed method; fair value method; dividend basis method; yield-basis method; and asset-backing method (Swayamjit, 2016) providing different results, none of which is actually perfect. Therefore, it is vital to use other, sufficiently simple methods for determining the value of a company and the value of its stocks or shares in the event of off-exchange transactions. As potential investors often have access to the financial reports of companies only, it is useful to use ratios that can be derived from the balance sheet, profit or loss account or other components of that report. When assessing the financial standing of a company, working capital is among the key indicators of its operational activity, which can be easily calculated using the balance sheet data. According to financial analysts, positive working capital (the difference between current assets and current liabilities) can be regarded as the basis for the development of the company because, assuming that all current liabilities are settled, the residual value represents the resources that can be used to expand the company's business (Stolowy & Ding, 2017). Hence, it should also affect the company's valuation.

Therefore, the research study is aimed at determining the impact of changes in working capital on the valuation of a company. To achieve that aim, the research study uses monographic research methods for literature review, statistical methods for data collection and analysis, as well as calculations made with SPSS programs using information from the financial reports of the companies listed on the official list of Nasdaq OMX Riga.

Literature review

'Working capital' is an arithmetic difference between two balance sheet aggregated accounts: current assets and current liabilities (Sagner, 2014). "The word 'working capital' seems relatively simple to comprehend. Nevertheless, quantification of working capital for an enterprise or assessment of it for lending purposes is as complex as anything else in the financial domain (Gupta & Gupta, 2015).

Working capital, its structure, and management by applying the enterprise data have been extensively studied in many countries around the world. H.K. Baker, S. Kumar, S. Colombage, and H.P. Singh have studied working capital management (WCM) practices adopted by Indian firms listed on the National Stock Exchange (NSE), and they concluded that a majority of respondents indicated that their firms had a comprehensive policy for WCM, but it tended to be informal and compared with other research areas of corporate finance WCM was a relatively neglected topic." (Baker, Kumar, Colombage, & Singh, 2017).

The interconnections between working capital and other indicators have been studied such as a correlation between cash flow and working capital (Afrifa, 2016) or the influence of working capital level on SME profitability. For instance, the study of 160 London stock exchange SMEs over a six-year period (2005-2010) led to the conclusion that the results confirmed the existence of a working capital level, which maximised the profitability of an enterprise. Deviations from the optimal level reduce the profitability of an enterprise. Hence, WCM is an important element for firms (Afrifa & Padachi, 2016). Shaista Wasiuzzaman indicates, “Unlike cash holdings, working capital’s relationship with firm value has not been studied as extensively” (Wasiuzzaman, 2015). Shaista Wasiuzzaman has researched the data of 192 companies in Malaysia over a period of eight years (from the year 2000 to 2007) resulting in her finding that “the studies so far on working capital valuation confirm two things. Firstly, working capital does influence firm value significantly, and secondly, financing constraints play an important part in this relationship. However, the studies are still limited, and further empirical evidence is needed to support these findings” (Wasiuzzaman, 2015). The effect of working capital management strategies on stock price changes and the cash value added have also been studied by Abbas Ali Pouraghajan, Yousef Taghipouryan, and Samira Bavandi in 59 companies listed in the Tehran Stock Exchange during 1999-2011. They concluded, “An aggressive strategy positively and directly influences stock price changes; therefore, bold policies will lower the ratio of net working capital followed by reduced liquidity. In this case, the firm should take the risk of untimely payment of due debt. This is followed by the increased likelihood of bankruptcy and reduced credit, which eventually can increase stock price falling. It was also determined that businesses can positively and significantly influence stock price changes in companies listed in the TSE by adopting moderate policies which are the balanced utilization of assets and current debts and take a reasonable risk. On the other hand, working capital management strategies do not influence the CVA (Cash Value Added)” (Pouraghajan, Taghipouryan, & Bavandi, 2015).

Having been inspired by the study on stock prices in the Tehran Stock Exchange, the authors shall include an assessment of the correlation between working capital and stock prices of the companies listed on the Nasdaq OMX Riga in this article.

Methodology

The methodology of the research relates to the aim set and the tasks to be accomplished, that is, to analyse the research published in scientific literature on working capital and its correlation with the stock price or share price, to set the research hypothesis, to collect the data necessary for its examination, to make

calculations, and to evaluate the obtained results by making conclusions and developing recommendations for future research. The general scheme of the methodology is given in Figure 1.

The scientific literature review showed that the range of research in the field of working capital is quite wide. Often, the significance of working capital management is emphasised, and the impact of different work capital management strategies on stock prices is assessed by means of regression equations (Pouraghajan, Taghipouran, & Bavandi, 2015). However, such calculations require internal company information that is not available to an external investor. Without aggravating the complexity of the general question unduly whether the working capital can be used for valuing company stocks, the authors have chosen to verify the correctness of the underlying assertion by formulating the following hypothesis in this research study: changes in working capital are closely related to the changes of companies' stock prices on Nasdaq OMX Riga in a specific period.

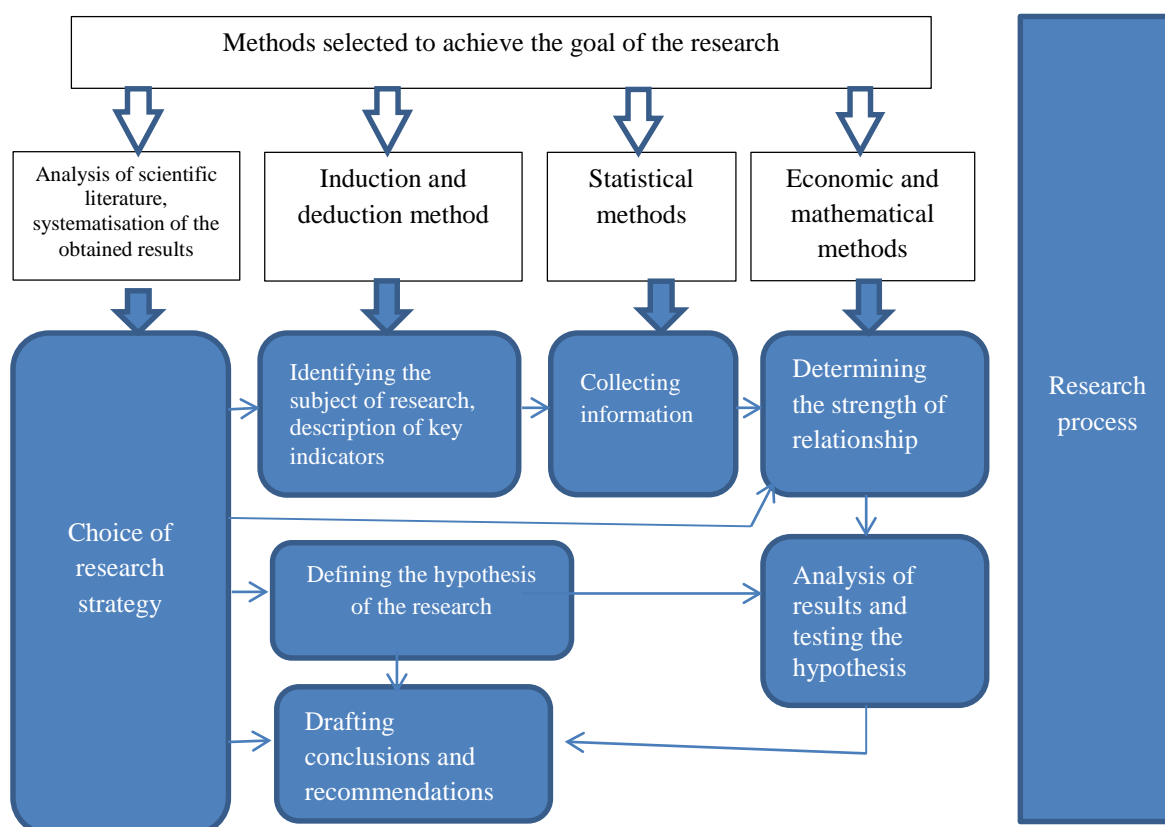


Figure 1 Research methodology (author-created)

To test the hypothesis, the authors selected 15 Latvian and Estonian joint stock companies listed on the official list of Nasdaq OMX Riga. The currency used in the financial reports burdened the use of data from Lithuanian joint stock

companies. Only after the changeover to the euro, the financial statements of Lithuanian companies on the official list (starting in 2015) are available in this currency, although the authors chose the period from 2011 to 2017 as the research period. Therefore, the Lithuanian joint stock companies were not included in the cohort. Since the official list included 33 listed companies, the research cohort constituted 45% of the general population, thus allowing to evaluate the results obtained with sufficient reliability.

For calculations, the following data were selected from each company's annual financial reports: current assets, current liabilities, total liabilities, equity, retained profit, and weighted average stock price. In order to compare the results of the calculations for various joint stock companies, they were divided into 5 groups: four groups according to the industry and the basic activity, while the fifth group included all the other companies. The companies included in the cohort, their scope and changes in stock prices on a year-by-year basis are summarised in Table 1.

*Table 1 Stock price changes of the companies listed on Nasdaq OMX Riga (EUR)
(author-created based on the Financial reports of 15 listed companies of Nasdaq OMX Riga
(2011-2017))*

No	Company	Industry	2011	2012	2013	2014	2015	2016	2017	\bar{y}
1.	Arco Vara	Real estate development	3.79	1.82	1.49	1.11	0.99	1.20	1.38	1.68
2.	Merco Ehitus	Real estate development	7.49	6.04	6.96	7.33	8.47	8.44	9.27	6.71
3.	Pro Kapital	Real estate development	1.70	2.15	2.27	2.50	2.34	2.11	2.00	2.15
4.	Grindeks	Pharmacy	8.22	6.67	8.23	7.90	6.07	4.62	7.11	6.96
5.	Olainfarm	Pharmacy	3.49	4.42	7.06	5.93	7.11	8.51	8.05	6.37
6.	Harju Elekter	Production of engineering and telecom systems	2.87	2.55	2.69	2.69	2.82	2.67	3.94	2.89
7.	SAF Tehnika	Production of engineering and telecom systems	3.25	3.25	1.85	1.91	2.73	3.42	5.72	3.16
8.	Nordecon	Construction and engineering	1.16	1.02	1.13	1.02	1.05	1.14	1.30	1.12

9.	Tallinna Kaubamaja	Wholesale and resale of goods	5.77	5.59	5.67	5.15	6.07	7.25	9.23	6.39
10.	Silvano Fashion	Production of women's lingerie	3.12	3.00	2.71	1.94	1.36	2.17	2.71	2.43
11.	Baltika	Clothing retail	0.81	0.43	0.74	0.49	0.36	0.29	0.29	0.49
12.	PR Foods	Production of fish products	0.84	0.69	0.68	0.70	0.55	0.37	0.60	0.63
13.	Tallink Grupp	Maritime transportation	0.71	0.66	0.94	0.74	0.68	0.83	0.91	0.78
14.	Ekspress Grupp	Media and publishing	1.32	1.04	1.13	1.03	1.28	1.27	1.30	1.20
15.	Tallinna Vesi	Water supply and wastewater collection and treatment services	7.76	7.91	10.42	12.91	13.88	14.12	11.81	11.26

From the data obtained, working capital was calculated as the difference between current assets and current liabilities. Graphical analysis was carried out to obtain an initial view of trends in working capital and stock price changes. The resulting images (See Figure 2 for example) indicated a possible correlation between the two variables.

The standard deviation was calculated to characterize the data sets (Wackerly, Mendenhall, & Sheaffer, 2008):

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}} \tag{1}$$

Where σ – standard deviation,
 x – variable value,
 \bar{x} – mean value of the variable,
 n – number of cases.

Since the mean values of working capital and stock prices are very different and the interpretation of standard deviations is cumbersome, it is useful to calculate the coefficient of variation V , thus expressing the percentage of dispersion.

$$V = \frac{\sigma}{x} * 100 \tag{2}$$

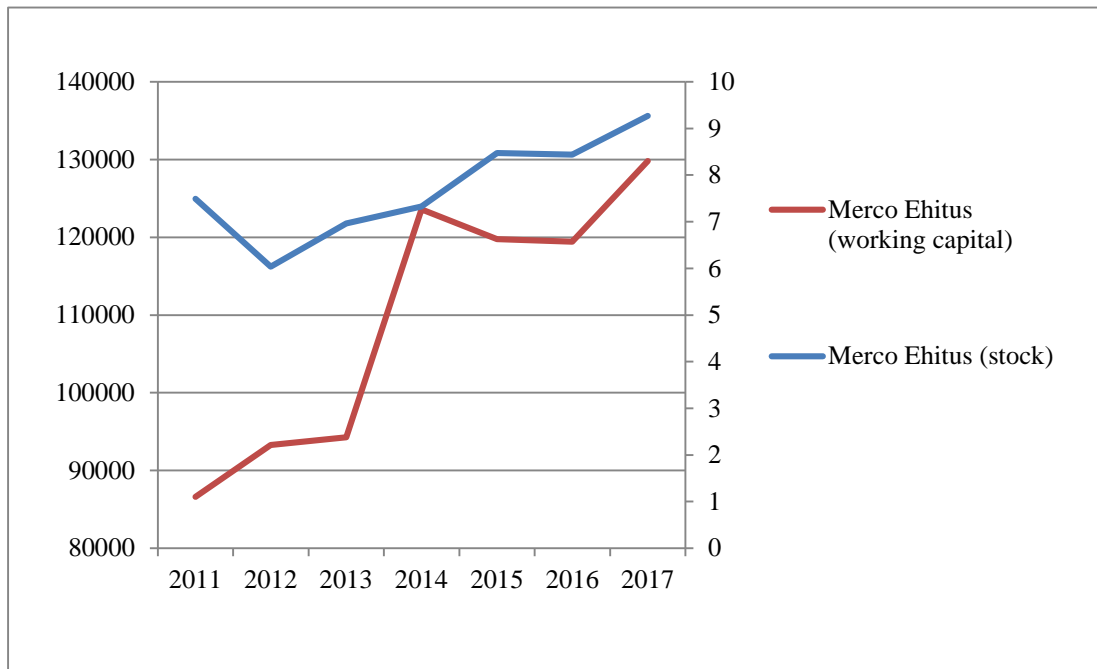


Figure 2 Trends of working capital and stock price changes of JSC Merco Ehitus
 (author-created based on the Financial reports of 15 listed companies of Nasdaq OMX Riga (2011-2017))

Pair correlation was used to measure the strength of relationship assuming that the correlation between a factorial value (working capital) and a final value (stock price) is linear. Using the SPSS program, Pearson’s correlation coefficient was calculated (Wackerly, Mendenhall, & Sheaffer, 2008):

$$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}} \quad , \quad (3)$$

Where r – correlation coefficient,
 y – dependent variable,
 x – independent variable,
 \bar{y} – mean of the dependent variable,
 \bar{x} – mean of the dependent variable.

The correlation coefficient indicates a strong relationship if its absolute value is between 0.7 and 0.9, while if r is above 0.5 and below 0.69, then the factorial and final traits are closely related. A lower coefficient value indicates a weak or insignificant strength of the relationship.

Research Results

Initially, the strength of the relationship was determined by means of correlation analysis regarding stock prices and calculated working capital. Among 15 joint stock companies studied using the probability of error of 0.05, a strong relationship was identified only in three cases, whereas a medium strong relationship was observed for two joint stock companies, which totaled approximately 33%. Correlation coefficients were compared as per industry groups, which generally did not point to similar correlation trends among joint stock companies operating in one industry. For example, out of the three real estate developer companies, only one company (JSC Pro Kapital) achieved a high strength of relationship value of -0.828, while the correlation coefficients of the other two were insignificant. In this case, the negative correlation coefficient indicates to different directions of the trend of the variables, id est, the stock price increases (see Table 2), but the value of working capital decreases in the reviewed period in general. Only the correlation coefficient of all the joint stock companies (Harju Elekter, SAF Tehnika, Nordecon) producing different telecommunication and electrical engineering systems pointed at a strong correlation or a medium strong correlation in one case. Thus, no unambiguous and general conclusion can be drawn regarding the direct impact of changes in working capital on the stock price.

Having expanded the conditions of the proposed hypothesis, calculations of the correlation coefficient were performed for three more pairs of variables to assess whether the stock price changes depend on the amount of liabilities, the amount of equity, and the amount of retained profit. The results showed that a strong or moderate relationship existed between the stock prices and total liabilities in 47% of cases that could be explained by the fact that the use of borrowed capital to finance economic activity increased the profitability of equity. An analysis of stock price correlation with equity or retained profit yielded similar results, namely, for five joint stock companies, the absolute value of the correlation coefficient exceeded 0.5; moreover, it was very similar in both pair correlation calculations in four cases. These results are not unexpected, as retained profit is a constituent of the equity; hence it influences its changes significantly. All the calculation results are summarised in Table 2, where the coloured correlation coefficients show a significant or strong relationship between the variables. One must note that for JSC Nordecon moderate strength of the relationship between stock price changes was found with all the four variables, while for the other four companies it was insignificant in all the cases, whereas three high correlation coefficients were found for three joint-stock companies. In two cases, two R-values were significant, but for five companies only one of the four coefficients was significant.

Table 2 Stock price correlation with working capital, total liabilities, and retained profit
(author-created based on the Financial reports of 15 listed companies of Nasdaq OMX Riga (2011-2017))

No	Company	Industry	Working capital	Liabilities	Equity	Retained Profit
1.	Arco Vara	Real estate development	0.299	0.054	0.848	0.862
2.	Merco Ehitus	Real estate development	-0.053	-0.037	-0.540	-0.450
3.	Pro Kapital	Real estate development	-0.828	-0.895	0.170	0.297
4.	Grindeks	Pharmacy	0.086	-0.578	0.236	-0.085
5.	Olainfarm	Pharmacy	0.513	0.212	0.402	0.240
6.	Harju Elekter	Prod. of engineering and telecom systems	0.837	0.775	0.072	0.946
7.	SAF Tehnika	Prod. of engineering and telecom systems	0.751	0.337	0.813	0.800
8.	Nordecon	Construction and engineering	0.588	0.611	-0.667	-0.538
9.	Tallinna Kaubamaja	Wholesale and resale of goods	-0.275	-0.598	-0.049	-0.571
10.	Silvano Fashion	Production of women`s lingerie	0.031	0.264	0.238	-0.455
11.	Baltika	Clothing retail	-0.057	0.337	0.363	-0.248
12.	PRFoods	Production of fish products	-0.133	0.484	0.480	-0.199
13.	Tallink Grupp	Maritime transportation	-0.389	0.595	-0.315	-0.136
14.	Ekspress Grupp	Media and publishing	-0.207	-0.361	-0.367	-0.230
15.	Tallinna Vesi	Water supply and wastewater collection	-0.212	-0.934	0.664	0.664

After analysing the standard deviations of the studied variable sets, it is concluded that the variation coefficient values that indicate the percentage of the dispersion are easier to interpret. If the variation coefficient does not exceed 33%, then the set is homogeneous, and finding a corresponding function of the trend and the relationship between the final feature and the factorial feature is easier. In order to verify the correctness of this statement, the variation coefficients for those five joint stock companies whose correlation between stock price and working capital reached a significant level were compared. The data shows that for only two joint stock companies (Pro Kapital, Olainfarm) the dispersion of both variable cohort sets is in line with the above-mentioned condition (see Table 3). However,

JSC Harju Elekter with the highest correlation coefficient of 0.837 has a working capital dispersion of 64%, while the dispersion of stock price is only 16%.

Table 3 Stock price and working capital correlation and variability indicators (author-created based on the Financial reports of 15 listed companies of Nasdaq OMX Riga (2011-2017))

No	Company	Industry	Working capital		Share price		Correlation
			Standard deviation	Coefficient of variation (%)	Standard deviation	Coefficient of variation (%)	
1.	Pro Kapital	Real estate development	39653	15	0.2580	12	-0.828
2.	Olainfarm	Pharmacy	6686	22	1.8581	29	0.513
3.	Harju Elekter	Production of engineering and telecom systems	8626	64	0.4747	16	0.837
4.	SAF Tehnika	Production of engineering and telecom systems	890	1	1.2974	41	0.751
5.	Nordecon	Construction and engineering	3665	77	0.9945	89	0.588

Nordecon's variation indexes for working capital and stock price are very high, that is 77% and 89% respectively, but the correlation coefficient shows a moderately strong relationship of 0.588. This is likely to indicate that the correlation between stock prices and working capital values of the companies listed on the Riga Stock Exchange is non-linear. Hence, the set hypothesis must be rejected, as only one-third of the cases studied provided positive results. An expanded study is needed to determine what other factors affect stock prices. The conclusions of other scientists pointed at that, such as "The concept of working capital as a hindrance to financial performance is a complete change in attitude from earlier conventional wisdom. However, working capital has never actually contributed to a company's profits or losses: instead, it just sits on the balance sheet awaiting disposition." (Sagner, 2014.).

Conclusions

While looking for easy-to-use approaches to stock pricing where they are not listed on the stock exchange and based on the results of research published in the scientific literature, the authors chose to underpin working capital as a baseline and a readily quantifiable indicator from the financial statements and to assess the possible correlation between working capital and stock price changes. The hypothesis of the strong relationship between those two variables was tested.

Having assumed that the correlation was linear and calculated the correlation coefficient according to the data of 15 companies listed on the official list of Nasdaq OMX Riga from 2011 to 2017, it was found that the correlation between working capital and stock price could be considered strong or noticeable in 33% of cases, while in other cases, the strength of relationship was insignificant. Similar results were also obtained for stock price changes as a final feature of a variable versus total liabilities, equity, and retained profit. Thus, the initially proposed hypothesis has not been confirmed.

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LATVIJAS AKCIJU TIRGUS KĀ INVESTĪCIJU OBJEKTA NOVĒRTĒJUMS

Evaluation of the Latvian Stock Market as an Investment Object

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Abstract. Development of the securities market in Latvia compared with the countries of Western Europe, Scandinavia, and North America has started much later and has been slow; therefore, the interest of individuals and companies to actively participate in the capital market can be assessed as low. The stock market that is considered as one of the types of the securities market is an unstructured environment where every investor has to decide on how to invest. The potential investor interested in stocks as an investment object can buy shares of the companies and potentially earn money despite the fact that investments in stocks are considered as a very high-risk investment. The research aim: to evaluate the Latvian stock market as one of the investment objects. The scope of the research determines the topics covered: investment opportunities in the stocks of the regulated Latvian stock exchange. The research findings point out that the performance of the Nasdaq Riga stock exchange despite its relatively small number of the issuers of shares is effective. The author concludes that use of the investment accounts is not sufficiently promoted for private individuals, consequently, the culture of savings lags behind in Latvia. In order to educate the private investors and promote decision-making on the purchase of shares, it would be advisable for the Nasdaq Riga to provide the investors with concise information on the shares of the companies and their characteristics. The quantitative and qualitative methods of economics research, including the method of comparative analysis and synthesis, as well as statistical and graphical analysis methods are used in the research.
Keywords: investments, Latvia, market, stock, valuation.

Ievads

Introduction

Akciju tirgus ir nestrukturēta vide, kurā katram ieguldītājam ir jāizdomā, kā investēt (Sprinģis, 2016). Finanšu pasaulē investīcijas akcijās tiek uzskatītas par ļoti augsta riska ieguldījumu (Pelane, 2015). Ieguldot naudu finanšu aktīvos iesaka ieguldījumos novirzīt līdzekļus, pēc kuriem nerodas tūlītēja nepieciešamība (Apinis, 2015). Ierosina pirkt akcijas tad, kad citi tās masveidā grib pārdot, ieguldīt akcijās ne vairāk kā 5% līdz 10% no saviem uzkrājumiem, ieguldīt tikai tajos uzņēmumos, kuru darbības joma zināma un ieguldīt tikai ar ilgtermiņa (10 gadu) skatījumu (Grišins, 2018). Ar potenciālo ieguldījumu summām nevajadzētu pārspīlēt. Labākā stratēģija būtu uzsākt tirdzniecību ar

dažiem simtiem vai 1000 Euro, kas laikā, kamēr pierod pie tirdzniecības niansēm, ļautu samazināt iespējamo zaudējumu apmērus (Apinis, 2015). Ieteicams ieguldīt ne mazāk kā 2 – 3 tūkstošus eiro (Pavlovs, 2015).

Ārvalstu zinātnieku akciju tirgus pētījumu rezultātu (Prosad, Kapoor, & Sengupta, 2015; Zhang, 2017; Tsagkanos, 2017; Sivaramakrishnan, Srivastava, & Rastogi, 2017; Zaremba & Shemer, 2018; Zhong, 2018) analīze liecina, ka dominē akciju tirgus attīstības un ietekmējošo faktoru izpēte (akciju likviditāte, investoru uzvedības modeļi, finanšu pratība, riski u.c.). Latvijas vērtspapīru tirgus, t.sk. akciju tirgus pētījumi aptver lauksaimniecības uzņēmumu iespēju izpēti piesaistīt kapitālu Latvijas akciju tirgū (Ķesteris – Mālkalns, 2007), Latvijas vērtspapīru tirgus tendenču un problēmu izpēti (Šnepste, 2011), Baltijas akciju tirgus attīstības scenāriju izpēti (Žuka, 2009) un Baltijas valstu uzņēmumu finanšu rezultātu ticamības ietekmes uz akcijas ienesīgumu novērtēšanu (Grigorjeva, 2008). Latvijā vērtspapīru tirgus attīstība, salīdzinot ar Rietumeiropas, Skandināvijas un Ziemeļamerikas valstīm, ir sākusies krietni vēlāk un noritējusi visai lēni, tādēļ iedzīvotāju un uzņēmumu interesi aktīvi iesaistīties kapitāla tirgū kopumā var vērtēt kā zemu (Rozenfelds, 2018). Autore uzskata, ka aktivitāti akciju tirgu varētu paaugstināt esošo un potenciālo investoru finanšu pratības paaugstināšana. Finanšu pratība - zināšanu un prasmju kopums, kas personai ļauj izprast un sekmīgi organizēt savu finanšu pārvaldīšanu un pieņemt pārdomātus lēmumus par dažādu finanšu pakalpojumu izvēli un to izmantošanu, nodrošinot savu privāto finansiālo stabilitāti un ilgtspēju (Latvijas iedzīvotāju..., 2014). Pētot finanšu pratību (Sivaramakrishnan et al., 2017) secināja, ka investora uzvedību būtiski ietekmē objektīva finanšu pratība, t.i., investora faktiskās zināšanas.

Latvijas iedzīvotāju naudas uzkrājumi aug, to apliecina Finanšu un kapitāla tirgus komisijas apkoptie dati. Taču lielākā daļa no brīvajiem naudas līdzekļiem atrodas iedzīvotāju banku kontos un depozītos, kam šobrīd piedāvātās procentu likmes ir tuvu nullei (Grišins, 2018). Vērtējot Latvijas investoru finanšu pratību tiek atzīmēts, ka „Investēšanas kultūra Latvijā ir bērna autiņos. Tikai retajam ir vērtspapīru konts. Zināšanu līmenis par investīcijām finanšu tirgos mūsu sabiedrībā ir visai zems. Lai celtu finanšu pratību, nepaies gads vai divi, vajadzēs gadus desmit vai vairāk. Vietējie uzņēmumi ir labākais veids, kā sākt mācīties. Ieguldot uzņēmumos, kas strādā tuvāk mājām, būs daudz vieglāk izprast, kā tiem veicas, kādas ir to nākotnes perspektīvas” (Rozenfelds, 2018).

Autore uzskata, ka, Latvijas akciju tirgus kā investīciju objekts, nepietiekoši novērtēts. Pēc autores domām, ieguldījumi biržas akcijās, pamatojoties uz informāciju, ko birža piedāvā potenciālajiem akcionāriem, varētu būt viena no investēšanas alternatīvām, savukārt tā nosaka finanšu pratības nepieciešamību.

Pētījuma mērķis: novērtēt Latvijas akciju tirgu kā vienu no investīciju objektiem. Pētījuma apjoms nosaka pētījuma ierobežojumu: pētījumā tiks skatītas un vērtētas investēšanas iespējas Latvijas vērtspapīru biržas Nasdaq Riga

(turpmāk Nasdaq Riga), kas ir Nasdaq Baltijas tirgus sastāvdaļa, tirgotajās akcijās.

Pētījuma uzdevumi:

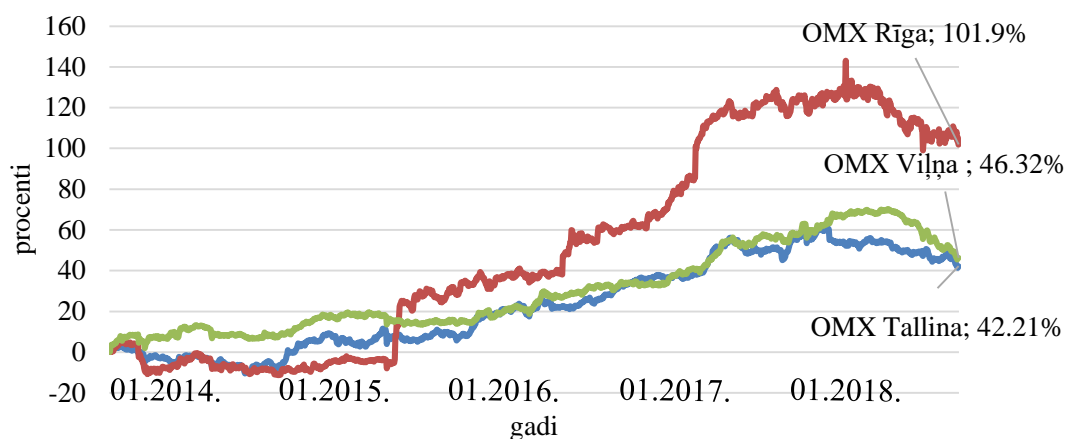
1. Izpētīt Nasdaq Riga akciju tirgus cenu izmaiņas;
2. Novērtēt ieguldījumus Nasdaq Riga akcijās.

Pētījumā tiek izmantotas vispārpieņemtās ekonomikas zinātnes pētījumu kvantitatīvās un kvalitatīvās metodes, tai skaitā salīdzinošās analīzes un sintēzes metode, statistiskās un grafiskās analīzes metodes.

Nasdaq Riga akciju cenu dinamika *Dynamics of Nasdaq Riga stock prices*

Ikviens akcionārs cer uz savu ieguldījumu „pievienoto vērtību” no diviem avotiem – akciju vērtības palielinājuma jeb ieguldītā kapitāla vērtības pieauguma un dividendžu maksājumiem. Akciju tirgū bieži vien lielāka uzmanība tiek pievērsta tām akcijām, kuru cenu izmaiņas ir straujākas.

Akciju tirgus indekss ir akciju tirgus vai tā daļas kopējais vērtības novērtējums, pamatojoties uz vidējām cenām. Tā ir vidējā svērtā vērtība, tāpēc dārgākām akcijām ir lielāks svars un tās vairāk ietekmē indeksu nekā zemākas cenas akcijas. Investori izmanto akciju indeksu, lai aprakstītu tirgus stāvokli un salīdzinātu dažādu ieguldījumu peļņu (Capital.com, 2018). OMX Riga visu akciju indekss, kurš aptver visas Nasdaq Riga Oficiālajā un Otrajā sarakstā iekļautās akcijas, izņemot uzņēmumus, kur viena akcionāra rokās ir 90% vai vairāk akciju. Indeksa mērķis ir atspoguļot situāciju un izmaiņas Rīgas vērtspapīru tirgū (Nasdaq, 2019). Nasdaq Riga statistikas dati liecina, ka investori, kuri ieguldīja biržā kotētajos uzņēmumos, pēdējo gadu laikā varēja nopelnīt (1.attēls).



1.attēls. *Baltijas valstu akciju tirgus indeksu izmaiņas 2014.-2018.gadā, %*
(autores veidots pamatojoties uz Nasdaq, 2019)

Figure 1 *Changes in the Baltic stock market indices in 2014-2018, %* (compiled by the author, based on Nasdaq, 2019)

Laika periodā no 01.01.2014.-31.12.2018. akciju tirgus indekss OMX Riga palielinājās par 101,9%, kas ir labākais sniegums salīdzinot Baltijas valstu akciju tirgus indeksus.

1.tabula. Nasdaq Riga tirgto akciju cenas raksturojošie rādītāji 2014.-2018.gadā

(autores veidota pamatojoties uz Nasdaq, 2019)

Table 1 Characteristics of Nasdaq Riga traded stock prices in 2014-2018

(compiled by the author, based on Nasdaq, 2019)

Akciju emitenti	Akcijas tirgus cenas izmaiņas, %	Akcijas pēdējā tirgus cena 2018.g.b.	Akcijas augstākā tirgus cena, euro	Akcijas zemākā tirgus cena, euro
<i>Oficiālais saraksts</i>				
A/s Grindeks	-28,62	6,5	10,5	3,96
A/s HansaMatrix	9,66	6,5	8,83	6,05
A/s Olainfarm	-5,06	6,7	11,5	5,5
SAF Tehnika	1,91	2,32	7,92	1,41
<i>Otrais saraksts</i>				
A/s Brīvais Vilnis	40,56	1,2	1,5	0,53
A/s Ditton pievadķēžu rūpnīca	-19,43	0,188	0,28	0,025
A/s Grobiņa	-82,75	2	16,8	0,85
A/s Kurzemes atslēga 1	23,57	0,8	1,76	0,25
A/s Latvijas balzams	226,16	8,4	10,4	2,16
A/s Latvijas Gāze	7,55	10,1	13	5,55
A/s Latvijas Jūras medicīnas centrs	68,67	3,6	9,99	2
A/s PATA Saldus	94,11	29	29	5,68
A/s Rīgas autoelektroaparātu rūpnīca	31,78	0,15	0,549	0,1
A/s Rīgas elektromašīnbūves rūpnīca	95,22	2,5	6,35	0,5
A/s Rīgas juvelierizstrādājumu rūpnīca	-54,05	0,085	0,21	0,05
A/s Rīgas kuģu būvētava	-81,6	0,072	0,552	0,02
A/s Siguldas ciltslietu un mākslīgās apsēklošanas stacija	-1,79	3,2	6	1,31
A/s Valmieras stikla šķiedra	9,54	2,26	4,08	1,89
A/s VEF	305,46	1,5	1,5	0,28
A/s VEF Radiotehnika RRR	-52,96	0,328	1,2	0,012
<i>Alternatīvais saraksts</i>				
A/s Baltic Telekom	-99,42	0,109	18,6	0,022
A/s Madara Cosmetics	10,42	7,95	8,35	7,15

Nasdaq Riga uzņēmumu akciju cenu izmaiņu novērtēšanā 2014.-2018.gadā autore iekļāva tikai tos uzņēmumus, kuru akcijas tiek tirgotas biržā 2019.gada janvārī. Vērtējot akciju cenu pieaugumu 2014.-2018.gadā, TOP 3 izaugsmes rekordisti starp likvīdākajām kompānijām ir a/s VEF, a/s Latvijas balzams un a/s

Rīgas elektromašīnbūves rūpnīca (1.tabula). Jāatzīmē, ka visi iepriekšminētie uzņēmumi ir Nasdaq Riga otrā saraksta uzņēmumi. Vērtējot akciju cenu kritumus 2014.-2018.gadā, TOP 3 rekordisti ar lielāko akciju kritumu ir a/s Baltic Telekom, kas ir Nasdaq Riga alternatīvā saraksta uzņēmums, a/s Grobiņa un a/s Rīgas kuģu būvētava – Nasdaq Riga otrā saraksta uzņēmumi.

Nasdaq Riga tirgus statistikas dati liecina, ka 2019.gada janvārī lielākais akcijas tirgus cenas pieaugums: a/s Grindeks – 20% un a/s SAF Tehnika – 13,79%; kritums: a/s Latvijas Jūras medicīnas centrs – 8,89%. 2019.gadā a/s Grobiņa saglabājās negatīva akciju tirgus cenas tendence (-10%) un a/s Latvijas Balzama akcijas tirgus cena turpināja palielināties – 4,76% (Nasdaq, 2019). Akciju cenas svārstības pētāmajā periodā galvenokārt noteica uzņēmumu akciju cenas ietekmējošie mikroekonomiskie faktori (uzņēmumu finansiālais stāvoklis, uzņēmumu vadības lēmumi u.c.).

Ienesīgākie darījumi aizvadītajos gados Rīgas biržā lielākoties piedzīvoti gadījumos, kad uzņēmuma vairākuma akcionāri nolemj izpirkt visu biznesu un aiziet no biržas (Pavlovs, 2018a). Finanšu instrumentu tirgus likuma (FITL) (2003) V nodaļa Akciju atpirkšanas piedāvājums nosaka obligātā un galīgā akciju atpirkšanas piedāvājumu nosacījumus. A/s Ventspils naftas akciju atpiršana 2015.gadā investoriem, atkarībā no laika, kad akcijas tika nopirktas, nodrošināja no 125 – 350% ienesīgumu. A/s Latvija kuģniecība (2018.gads) – 40 – 75% ienesīgumu (Pavlovs, 2018a).

Kā viens no perspektīvajiem uzņēmumiem, kurš varētu īstenot galīgo akciju atpiršanas piedāvājumu – a/s Latvijas balzams: akcijas tirgus cena 2014.-2018.gadā palielinājās par 226,16% un 2019.gada janvārī vēl par 4,76%.

Uzņēmuma akcionāru cerības ir pamatotas, jo 2016.gada sākumā galvenais akcionārs, kuram piederēja 89,99% no uzņēmuma akcijām, izsludināja brīvprātīgo akciju atpiršanu un bija gatavs maksāt 9 euro par 1 akciju, ja akcijas vēlēšies pārdot vismaz 3% akcionāru (Latvijas balzams, 2016). Darījums nenotika, jo nepieciešamie 3% akcionāru akcijas nevēlējās pārdot. Atbilstoši FITL, ja personai tiešā vai netiešā veidā pieder 90 vai vairāk procentu no kapitālsabiedrības akcijām, katrs no pārējiem šīs kapitālsabiedrības akcionāriem līdz brīdim, kad tiek veikta galīgā akciju atpiršana, var pieprasīt, lai šī persona atpērk viņam piederošās akcijas par cenu, kas nav mazāka par to cenu, ko nosaka atbilstoši šā likuma 74.panta nosacījumiem jeb bilances vērtībai. Eksperti uzskata, ka „tradicionālais a/s Latvijas balzams akciju iegādes motīvs ir vai nu cerības uz akciju atpiršanu, vai uz to, ka agrāk vai vēlāk kompānijas vadībā tiks ieviesta kārtība..., teorētiski a/s Latvijas balzams mazajiem akcionāriem ir divi nākotnes scenāriji: cerību sabrukums vai izredzes kļūt stāvus bagātiem”(Pavlovs, 2018b).

Autore uzskata, ka vērtējot iespējas iegādāties akcijas, akcijas tirgus cenas izmaiņu novērtējumu var izmantot sākotnējā priekšstata par uzņēmumu iegūšanai,

bet pirms līdzekļu ieguldīšanas akcijās jāveic uzņēmuma – potenciālā investīciju objekta vispusīga analīze.

Ieguldījumu Nasdaq Riga akcijās novērtēšana *Valuation of investments in Nasdaq Riga stocks*

Ja neizdodas īstermiņā pelnīt uz akciju cenu pieaugumu, ieguldītājam ir iespēja neveikt aktīvus ieguldījumus, cerot uz cenu kāpumu, bet gan nopirkt uzņēmumu akcijas ar mērķi saņemt dividendes. Investori, kuru priekšsazināšanas par biržām nav lielas, var iegādāties akcijas, kurām dividenžu ienesīgums ir augsts (Apinis, 2015). Laikā, kad Latvijas lielākās bankas par depozītu piedāvā 0,1—0,5%, to Latvijas uzņēmumu akciju iegāde, kas maksā dividendes, nodrošina ienākumus no 2—3 līdz 8—10 procentiem gadā. Neskaitot rekordus, kuru ienesība reizēm sasniedz arī 20% (Pavlovs, 2013).

Ieguldījumu akcijās vērtēšanai var izmantot divas rādītāju grupas:

- a/s peļņas salīdzinošie rādītāji: peļņa uz vienu akciju (earnings per share, EPS) un akcijas tirgus cenas un peļņas attiecība (price earnings ratio, P/E);
- dividenžu salīdzinošie rādītāji: dividende uz vienu akciju; dividenžu ienesīgums (Danns, 2006).

Pētnieki (Islam, Khan, Choudhury, & Adnan, 2014) secināja, ka EPS parasti tiek uzskatīta par svarīgāko faktoru akciju cenas un uzņēmuma vērtības noteikšanā, kā arī lielākā daļa individuālo investoru individuālos ieguldījumu lēmumu pieņem pamatojoties tieši uz EPS. Kumars (Kumar, 2017) norāda, ka EPS ir spēcīgs akciju tirgus cenas prognozētājs, kamēr P/E rādītājs būtiski ietekmē atsevišķu uzņēmumu tirgus cenas prognozi. Pētnieks (Cochrane, 2011) uzskata, ka dividenžu ienesīguma svārstības ir saistītas tikai ar gaidāmo peļņu, nevis ar paredzamo dividenžu pieaugumu.

EPS (Kumar, 2017) rāda, cik liela tīrās peļņas daļa pienākas uz vienu parasto akciju (1.formula).

$$\text{EPS} = \frac{\text{pārskata perioda tīrā peļņa}}{\text{apgrozībā esošo parasto akciju skaits}} \quad (1)$$

P/E (Kumar, 2017) rāda cik naudas vienību ir gatavi samaksāt akcionāri par vienas akciju sabiedrības tīrās peļņas naudas vienību (2.formula).

$$\text{P/E} = \frac{\text{1 akcijas tirgus cena}}{\text{peļņa uz vienu akciju (EPS)}} \quad (2)$$

Dividendes ienesīgums (InvestingAnswers, 2019) – investīcijas produktivitātes rādītājs vai "procentu likme" (3.formula).

$$\text{Dividendes ienesīgums, \%} = \frac{\text{dividende uz 1 akciju}}{\text{1 akcijas tirgus cena}} \times 100 \quad (3)$$

Akcionāri, iegādājoties uzņēmumu akcijas, cer uz uzņēmumu finansiālā stāvokļa uzlabošanu un augstāku akciju ienesīgumu. Autore Nasdaq Riga kotēto uzņēmumu dividenžu izmaksu no 2017.gada peļņas noteica kā sākotnējo nosacījumu ieguldījumu akcijās novērtēšanā 2.tabulas izveidē.

2.tabulas dati liecina, ka akcionāriem tiesības saņemt dividendes no 2017.gada peļņas deva iespēju tikai 8 no 22 Nasdaq Riga uzņēmumiem, kas kotēja akcijas 2019.gada janvārī (2017.gada beigās – 28 uzņēmumi). Jāatzīmē, ka 2.tabulas uzņēmumi 1.tabulā neuzrādīja lielākos akciju cenu kāpumus vai kritumus. 2017.gada beigās, vērtējot uzņēmumus, kas no 2017.gada peļņas izmaksāja dividendes, augstākā tirgus cena bija a/s Latvijas gāze akcijām – 10,00 euro par 1 akciju. Akcionāriem lielākās dividendes izmaksāja a/s SAF Tehnika, augstākais EPS – a/s Grindeks, augstākais dividenžu ienesīgums – a/s SAF Tehnika.

2.tabula. Ieguldījumu novērtējums Nasdaq Riga akcijās 2017.gada beigās

(autores izveidota un aprēķini pamatojoties uz Nasdaq, 2019)

Table 2 Valuation of investments in Nasdaq Riga stocks at the end of 2017 (compiled by the author, calculations based on Nasdaq, 2019)

	Akcijas tirgus cena, euro	Dividende uz 1 akciju, euro	EPS, euro	Dividenžu ienesīgums, %	P/E
A/s Grindeks	6,3	0,15	1,2	2,38	5,25
A/s HansaMatrix	8,14	0,08	0,92	0,98	8,85
A/s Latvijas Gāze	10,0	0,58	0,653	5,80	15,31
A/s Latvijas Jūras medicīnas centrs	8,0	0,4	0,633	5,00	12,64
A/s Olainfarm	8,05	0,21	0,66	2,61	12,20
A/s SAF Tehnika	4,84	0,67	0,588	13,84	8,23
A/s Siguldas ciltslietu un mākslīgās apsūklošanas stacija	3,3	0,08	0,156	2,42	21,15
A/s Madara Cosmetics*	7,5	0,09	0,33	1,20	22,73

* akciju tirdzniecība biržā tika uzsākta 10.11.2017.

Veicot ieguldījumus, investori bieži vien pievērš uzmanību P/E attiecībai. Pamatojoties uz uzņēmumu datiem par 2017.gadu, ilgāks laika posms, lai investīcija pie dotās akciju tirgus cenas un aktuālās peļņas sevi varētu atpelnīt, novērojams a/s Siguldas ciltslietu un mākslīgās apsūklošanas stacija - 21,15 gadu laikā. Investīcijas a/s Grindeks akcijās pie dotās akciju tirgus cenas un aktuālās

peļņas sevi varētu atpelnīt 5,25 gadu laikā. Jo ilgāks laiks ir nepieciešams, lai investīcija sevi atpelnītu, jo par dārgākām var uzskatīt noteikta uzņēmuma akcijas.

2.tabulas dati liecina, ka investoriem, kuru priekšsazināšanas par biržām nav lielas, varētu iegādāties a/s SAF Tehnika akcijas (augsts ienesīgums) un a/s Grindeks akcijas (īss investīciju atmaksāšanās laika periods). A/s Grindeks un a/s SAF Tehnika akciju tirgus cenas uzrādīja 2019.gada janvārī lielāko pieaugumu.

Fiziskās personas gūtos ienākumus vērtspapīru tirgū ietekmē arī iedzīvotāju ienākuma nodokļa (IIN) likmes. IIN likuma izpratnē akcijas ir kapitāla aktīvi. IIN no kapitāla ir 2 daļas: nodoklis ienākumam no kapitāla un kapitāla pieauguma nodoklis. IIN nodokļa likmes no kapitāla un kapitāla pieauguma 2013. - 2019.gadā uzrādīja pieaugošu tendenci. 2013. – 2017.gadā IIN no kapitāla sastādīja 10%, bet IIN no kapitāla pieauguma – 15%. 2018. – 2019.gadā IIN no kapitāla un IIN no kapitāla pieauguma sastāda 20%. (Par iedzīvotāju ienākuma..., 1993; IFinances, 2019).

No 01.01.2018. grozījumi likumā "Par IIN" nosaka ieguldījumu konta režīmu, kas būtiski atvieglo nodokļa aprēķinu un deklarēšanu fiziskajām personām, kuras veic darījumus ar finanšu instrumentiem. Jaunajā ieguldījumu konta režīmā IIN nav jāmaksā, kamēr no konta izmaksāto līdzekļu apmērs nepārsniedz iemaksāto līdzekļu summu. Nodokļu maksātājiem samazināts administratīvais slogs darījumu uzskaitē un nodokļu deklarāciju iesniegšanā. Savukārt, ja persona veic darījumus ar finanšu instrumentiem, bet tai nav deklarēts ieguldījumu konts, uz šo personu joprojām attiecināma parastā IIN piemērošanas kārtība kapitāla pieaugumam, kas paredz reizi ceturksnī vai gadā deklarēt ienākumu no kapitāla pieauguma un maksāt nodokli. Autore uzskata, ka privātpersonām nepietiekoši popularizēta ieguldījumu konta izmantošana, kas neveicina uzkrājumu kultūras veidošanos Latvijā.

Eksperti atzīst, ka straujākai attīstībai Latvijas vērtspapīru tirgū ir pietrūkuši lieli un likvīdi uzņēmumi (Hāka, 2017). Izskata iespējas kā uzlabot situāciju Latvijas kapitāla tirgū un efektīvi izmantot "fintech" pieredzi: samazināt vērtspapīru turēšanas/tirdzniecības izmaksas; samazināt emitentu izmaksas un nodrošināt informāciju (Kaužēns, 2018).

Privāto investoru aktivitāte vietējā vērtspapīru, t.sk. akciju tirgū ir ļoti nozīmīga un var būtiski veicināt kapitāla tirgus attīstību kopumā. Autore uzskata, ka privāto investoru izglītošanai un lēmumu pieņemšanas par akciju iegādi sekmēšanai, Nasdaq Riga mājas lapā būtu vēlams investoriem piedāvāt apkopotu informāciju par uzņēmumu akcijām un tās raksturojošajiem rādītājiem.

Secinājumi **Conclusions**

Vērtējot akciju cenu pieaugumu 2014.-2018.gadā, TOP 3 izaugsmes rekordisti starp likvīdākajām kompānijām ir a/s VEF, a/s Latvijas balzams un a/s Rīgas elektromašīnbūves rūpnīca. Vērtējot akciju cenu kritumus 2014.-2018.gadā, TOP 3 rekordisti ar lielāko akciju kritumu: a/s Baltic Telekom, a/s Grobiņa un a/s Rīgas kuģu būvētava. 2019.gada janvārī lielākais akcijas tirgus cenas pieaugums: a/s Grindeks un a/s SAF Tehnika; kritums: a/s Latvijas Jūras medicīnas centrs. Akciju cenas svārstības pētāmajā periodā galvenokārt noteica uzņēmumu akciju cenu veidojošie mikroekonomiskie faktori. Ienesīgākie darījumi aizvadītajos gados Nasdaq Riga lielākoties piedzīvoti gadījumos, kad uzņēmuma vairākuma akcionāri nolemj izpirkt visu biznesu un aiziet no biržas.

2017.gada beigās, vērtējot uzņēmumus, kas no 2017.gada peļņas izmaksāja dividendes, augstākā tirgus cena bija a/s Latvijas gāze akcijām, akcionāriem lielākās dividendes izmaksāja a/s SAF Tehnika, augstākais EPS - a/s Grindeks, augstākais dividenžu ienesīgums – a/s SAF Tehnika. Investīcijas a/s Grindeks akcijās (P/E) varētu atpelnīt 5,25 gadu laikā. Investoriem, kuru priekšzināšanas par biržām nav lielas, varētu ieteikt iegādāties a/s SAF Tehnika akcijas un a/s Grindeks akcijas.

Privātpersonām nepietiekoši popularizēta ieguldījumu konta izmantošana, kas neveicina uzkrājumu kultūras veidošanos Latvijā.

Privāto investoru izglītošanai un lēmumu pieņemšanas par akciju iegādi sekmēšanai, Nasdaq Riga mājas lapā būtu vēlams, investoriem piedāvāt apkopotu informāciju par uzņēmumu akcijām un tās raksturojošajiem rādītājiem.

Summary

Development of the securities market in Latvia compared with the countries of Western Europe, Scandinavia, and North America has started much later and has been slow; therefore, the interest of individuals and companies to actively participate in the capital market can be assessed as low. The stock market that is considered as one of the types of the securities market is an unstructured environment where every investor has to decide on how to invest. The potential investor interested in stocks as an investment object can buy shares of the companies and potentially earn money despite the fact that investments in stocks are considered as a very high-risk investment. The research aim: to evaluate the Latvian stock market as one of the investment objects. The scope of the research determines the topics covered: investment opportunities in the stocks of the regulated Latvian stock exchange. The quantitative and qualitative methods of economics research, including the method of comparative analysis and synthesis, as well as statistical and graphical analysis methods are used in the research.

An evaluation of increase in the stock prices in 2014-2018 points out TOP 3 results among the most liquid companies: A/S VEF, A/S Latvijas balzams, and A/S Rīgas elektromašīnbūves rūpnīca. An evaluation of the fall in the stock prices in 2014-2018 points out TOP 3 results of the largest stock drop: A/S Baltic Telekom, A/S Grobiņa, and A/S Rīgas kuģu būvētava. In January 2019, the largest increase in the market price of shares was experienced by A/S Grindeks and A/S SAF Tehnika; the largest drop by A/S Latvijas Jūras medicīnas centrs. The stock price fluctuations during the period under review were mainly determined by the microeconomic factors affecting the price of the companies' shares. The most profitable transactions at the Nasdaq Riga in the recent years have been experienced when the majority of the company's shareholders decided to redeem the entire business and leave the stock exchange.

At the end of 2017, evaluating the companies that have paid dividends from the profit of 2017, the highest market price was for the shares of A/S Latvijas gāze, the highest dividends were paid to the shareholders of A/S SAF Tehnika, the highest EPS – A/S Grindeks, the highest dividend yield – A/S SAF Tehnika. Investments in the shares of A/S Grindeks (P/E) could be repaid within 5.25 years. For the investors having little preliminary knowledge of stock exchanges, it may be advised to purchase the shares of A/S SAF Tehnika and the shares of A/S Grindeks.

Use of the investment accounts is not sufficiently promoted for private individuals; consequently, the culture of savings lags behind in Latvia.

In order to educate the private investors and promote decision-making on the purchase of shares, concise information on the shares of the companies and their characteristics could be provided for the investors on the Nasdaq Riga website.

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ПОТЕНЦИАЛ РЕГИОНАЛЬНЫХ ОБЛИГАЦИЙ ДЛЯ РАЗВИТИЯ ИНФРАСТРУКТУРЫ АЛТАЙСКОГО КРАЯ

Potential of Regional Bonds for the Development of the Infrastructure of the Altai Territory

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Abstract. *The development of the subjects of the Russian Federation is not possible without financial resources. Altai Territory is traditionally a highly subsidized region. Currently, it is ranked 4th in terms of federal subsidies. Now, the Ministry of Finance of the Russian Federation orients the subjects of the federation towards increasing the independence and efficiency of functioning. The Central Bank of Russia is intensifying its bond issues and sees in this direction an effective way of replacing credit resources and bill circulation in the coming years. Currently, there are no comprehensive methods for generating informed decisions on the issue of sub-federal bonds. The purpose of this study is to formulate a method for making an informed decision on the issue of sub-federal bonds, based on an assessment of their potential. To achieve this purpose, the methods of economic and system analysis, synthesis, synthesis, empirical methods, methods of abstraction and analogies were used. The main results of the study include: forecasting changes in the Russian bond market in the future based on a comprehensive assessment of the Russian ruble bond market; a critical assessment of the effectiveness of the use of bond instruments by constituent entities of the Russian Federation, the author's proposed system of key indicators that allow an objective assessment of the potential of sub-federal bonds, as well as a method for forming a reasonable decision on the timeliness and feasibility of issuing bonds by a subject of the federation. The proposed method was tested on the example of the Altai Territory.*

Keywords: *bonds, regions, resources, finance.*

Введение Introduction

Невозможно представить развитие субъектов Российской Федерации (РФ) без привлечения и использования финансовых ресурсов. Алтайский край традиционно является высоко дотационным регионом. В настоящее время он занимает 4 место по объему федеральных дотаций, которые в 2018 г. согласно Федерального бюджета РФ, составят 27,13 млрд. руб. (или

4,23% от всего объема средств, направленных на выравнивание бюджетной обеспеченности).

В последнее время Министерство финансов ориентирует субъекты федерации на повышение самостоятельности и эффективности функционирования. Тема потенциала региональных облигаций для развития Алтайского края в настоящее время является актуальной как никогда. Облигации могут стать эффективным инструментом финансирования обновления и модернизации инфраструктуры региона. Вопрос привлечения финансовых ресурсов в регион при помощи инфраструктурных облигаций сложный и требует системного подхода.

Целью данного исследования является формирование метода принятия обоснованного решения об эмиссии субфедеральных облигаций, на основе оценки их потенциала. Для достижения поставленной цели были использованы методы экономического и системного анализа, синтеза, обобщения, эмпирические методы, методы абстрагирования и аналогий.

Обзор литературы *Review of references*

Существует немало исследований, связанных с вопросами региональных облигаций. Основные вопросы и направления исследуемой темы следующие:

- каковы риски инфраструктурных облигаций для региона-эмитента и инвесторов (Силина, 2011);
- какое место могут иметь инфраструктурные облигации в системе финансового обеспечения деятельности края (Семернина, 2012);
- каков может быть размер предельно допустимого уровня внутреннего долга региона (Иванов, 2016);
- каковы направления использования финансовых ресурсов, привлеченных в регион при помощи инфраструктурных облигаций (Абрамов, Радыгин, & Чернова, 2015);
- как оценить экономический эффект инфраструктурных облигаций для региона от их применения (Никифорова, Сергеева, & Харламов, 2016) и т.д.

Изучая тему, прежде всего, необходимо определиться с базовыми терминами и понятиями, которые будут использованы в данной работе. Основными фундаментальными исследователями вопросов эффективности инвестиций можно считать Хайека (Hayek, 1991), Модильяни, Миллера (Modigliani & Miller, 1958) и др. В РФ понятие «облигация» закреплено в Федеральном законе от 22.04.1996 № 39-ФЗ «О рынке ценных бумаг» и

Федеральном законе от 29.07.1998 № 136-ФЗ «Об особенностях эмиссии и обращения государственных и муниципальных ценных бумаг». Согласно вышеперечисленным законодательным актам, облигация – это долговая ценная бумага с фиксированным доходом, по которой эмитент – лицо, выпускающее данную бумагу (компания или государство) – обязуется выплатить инвестору определенную сумму и определенный процент в будущем. В зависимости от эмитента облигации делятся на:

- государственные, которые выпускаются правительством;
- субфедеральные, которые выпускаются местными (региональными) властями. При этом довольно часто вместо термина «субфедеральные облигации» употребляют термин «муниципальные облигации». Понятия «субфедеральная облигация» и «муниципальная облигация» не содержатся в федеральных законодательных актах. Однако согласно сложившейся практике под «субфедеральными» обычно понимают региональный уровень. С финансовой точки зрения также различаются надежность эмитента, сроки обращения эмитированных облигаций и размер дохода. Эти параметры зависят и от конкретного эмитента, и от рыночной ситуации. Для инвестора значения данных параметров отражают преимущества и недостатки того или иного эмитента;
- корпоративные выпускаются коммерческими компаниями, например, облигации Сбербанка, Газпрома, РЖД и т.д.

Методы исследования *Methodology of research*

Изучение вопросов, связанных с оценкой потенциала региональных облигаций для развития Алтайского края, предполагает сбор, анализ и критическую оценку эмпирических данных. Исходя из цели исследования, заключающейся в необходимости оценки потенциала региональных облигаций для развития Алтайского края и как результат – формирование компетентного решения об их эмиссии или преждевременности данного решения – основными методами исследования являются: методы экономического и системного анализа, синтеза, обобщения, эмпирические методы, методы абстрагирования и аналогий.

Результаты исследования ***Results of research***

Рассмотрение полученных результатов начнем с характеристики структуры и динамики российского рублевого облигационного рынка (рисунок 1, 2). Как свидетельствуют данные рисунка 1, российскому рублевому облигационному рынку свойственен существенный рост объемов обращения. За рассматриваемый период объем облигационного рынка вырос практически в 4,5 раз с 4119 млрд. руб. до 18406 млрд. руб. В среднем в год рынок прирастает на 20%. При этом есть очевидная зависимость между темпами роста отечественного рынка облигаций и внешнеэкономическими факторами.

Анализ качественной структуры рынка субфедеральных и муниципальных облигаций показывает, что на конец 2017 г. доля облигаций региональных эмитентов первого эшелона (с высоким кредитным качеством) выросла до 50,2% от суммарного объема рынка против 42,8% на начало текущего года, что стало результатом роста активности данных эмитентов на первичном рынке.

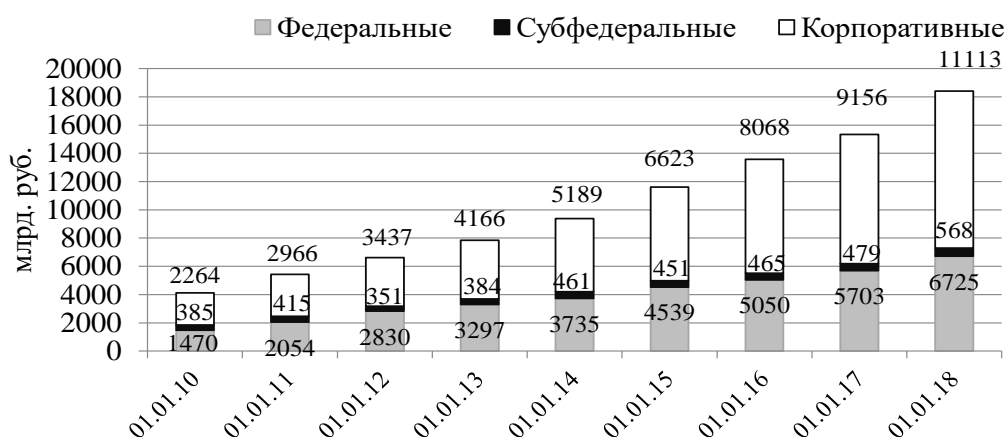


Рисунок 1. Динамика российского рублевого облигационного рынка в обращении за период 2010-2017 гг. (Ермак & Гапон, 2017)

Figure 1 Dynamics of the Russian ruble bond market in circulation for the period 2010-2017 (Ермак & Гапон, 2017)

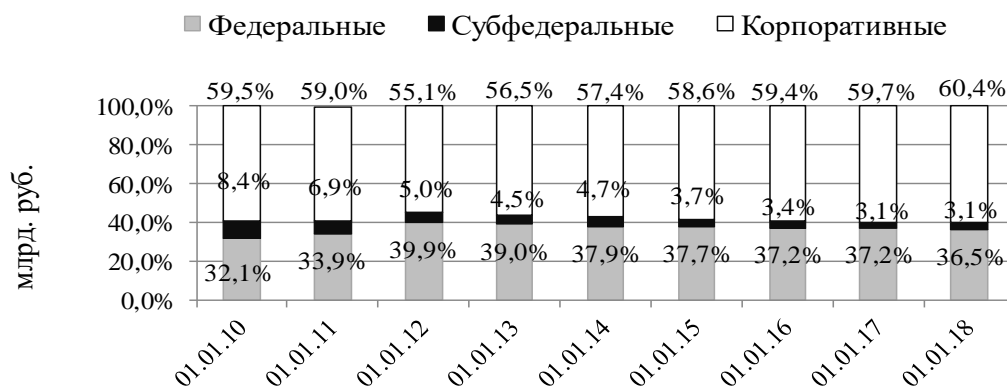


Рисунок 2. Структура российского рублевого облигационного рынка в обращении за период 2010-2017 гг. (Ермак & Гапон, 2017)

Figure 2 The structure of the Russian ruble bond market in circulation for the period 2010–2017 (Ермак & Гапон, 2017)

Доля облигаций второго эшелона снизилась до 38,1% с 44,2% на начало года, доля третьего эшелона до 11,7% против 13,0% (рисунок 3).

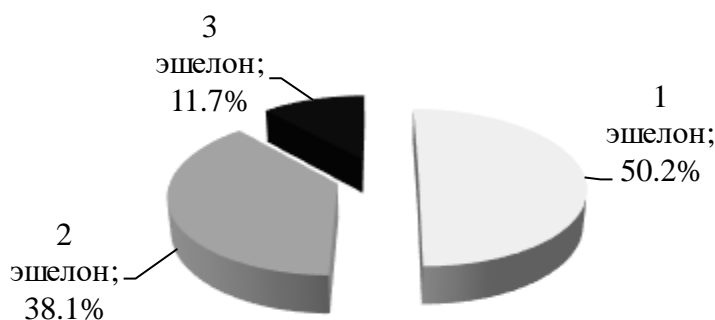


Рисунок 3. Качественная структура рынка субфедеральных и муниципальных облигаций, в % от общего объема на 01.01.2017 г. (Ермак & Гапон, 2017)

Figure 3 Qualitative structure of the market for sub-federal and municipal bonds, in % of total by 01.01.2017 (Ермак & Гапон, 2017)

Проанализируем, как менялись темпы роста российского рублевого облигационного рынка за последние годы (таблица 1).

Наибольшее ухудшение ключевых макроэкономических показателей в России отмечалось в период с 2014 г. по 2016 г.: высокие темпы инфляции, отрицательные показатели ВВП, существенное ослаблением национальной валюты, снижение стоимости барреля нефти. В этот же период зафиксировано замедление темпов роста отечественного облигационного рынка с 23,74% в 2014 г. до 12,92% в 2016 г. Стабилизация ситуации отмечалась в период с 2011 г. по 2013 г., а также в период с 2016 г. по 2017 г.

Таблица 1. Изменение темпов роста российского облигационного рынка в сравнении с макроэкономическими показателями страны за 2010-2017 гг. (составлено автором статьи основываясь на Егоренко, 2017)

Table 1 The change in the growth rate of the Russian bond market in comparison with the country's macroeconomic indicators for 2010-2017 (compiled by the authors of the article based on Егоренко, 2017)

Показатели	2010	2011	2012	2013	2014	2015	2016	2017
Темпы роста облигационного рынка, %	31,94	21,76	18,57	19,59	23,74	16,96	12,92	20,00
Инфляция, %	8,78	6,10	6,58	6,45	11,36	12,90	5,4	2,5
Темп прироста (снижения) ВВП, %	4,50	4,26	3,66	1,78	0,74	-2,54	-0,17	1,5
Курс доллара к рублю, руб.	30,18	30,55	31,87	30,42	32,66	72,93	59,89	57,30
Стоимость 1 барреля нефти, долл.	79,6	111,0	111,4	108,8	98,9	52,4	44,0	55,6
Ставка рефинансирования, %	8,00	8,25	8,25	8,25	8,25	8,25	-	-
Ключевая ставка, %	-	-	-	-	17,00	11,00	10,00	7,75

Анализ структуры облигационного рынка (рисунок 2) говорит о том, что наибольшую долю занимают корпоративные облигации. На них в настоящее время приходится 60,4% от всего объема обращения российско-го облигационного рынка. Доля субфедеральных облигаций снижается, но объем привлекаемых долговых ресурсов субъектами федерации, тем не менее, стабильно растет за весь рассматриваемый период. Рассмотрим региональную структуру рынка субфедеральных облигаций (рисунок 4).

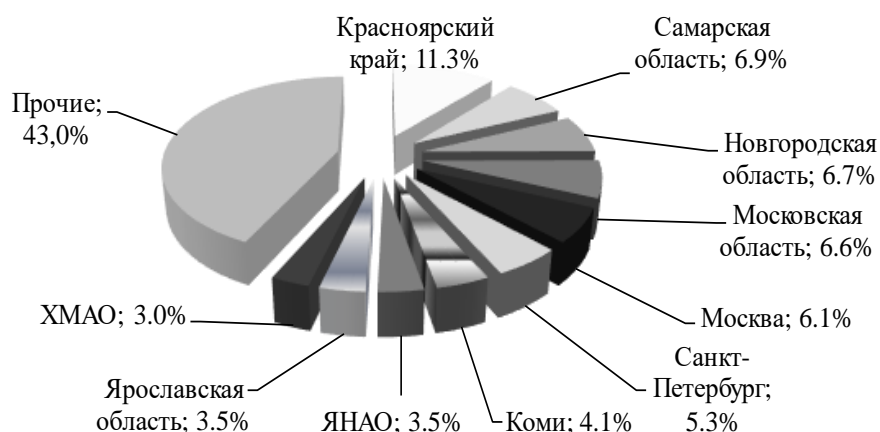


Рисунок 4. Региональная структура рынка субфедеральных и муниципальных облигаций, на конец 2017 г. (Ермак & Гапон, 2017)

Figure 4 Regional structure of the market of sub-federal and municipal bonds, at the end of 2017 (Ермак & Гапон, 2017)

Данный анализ в первую очередь позволяет выделить общие черты, присущие регионам, с наибольшей долей облигационного рынка, что позволит нам понять критерии инвестиционной привлекательности инфраструктурных облигаций для инвесторов. На рынке субфедеральных и муниципальных облигаций на конец 2017 г. были представлены 128 выпусками долговых ценных бумаг 53 эмитентов. Максимальную долю рынка по объему в обращении (около 11,3%) занимают облигации Красноярского края. Второй и третьей по объему облигационных займов стали Самарская и Нижегородская области с долей 6,9% и 6,7% рынка соответственно. В число крупнейших региональных заемщиков на публичном рынке вошла Московская область с долей 6,6%. Доля облигаций Москвы, которая не размещала свои долговые ценные бумаги с октября 2013 г., сократилась до 6,1% (против 12% на начало текущего года и около 23% годом ранее). За Москвой следует Санкт-Петербург с долей 5,3%. Проанализируем базовые социально-экономические показатели регионов, входящих в состав ключевых эмитентов субфедеральных облигаций в сравнении с Алтайским краем (таблица 2).

Таблица 2. Социально-экономические показатели регионов, входящих в состав ключевых эмитентов субфедеральных облигаций в сравнении с Алтайским краем (Егоренко, 2017)

Table 2 Socio-economic indicators of the regions that are part of the key issuers of sub-federal bonds in comparison with the Altai Territory (Егоренко, 2017)

Наименование	Площадь, тыс. км.	Численность, тыс. чел. на 01.01.17	Доля занятых, %	Среднедушевые доходы (руб. в мес.)	Расходы на душу населения (руб. в мес.)	Валовой региональный продукт, млн. руб.	Основные фонды, млн. руб.	Инвестиции в основной капитал, млн. руб.
Красноярский край	2366,8	2875,3	48,4	28030	19732	1618166	3227379	419060
Самарская область	56,6	3203,7	53,5	26795	20798	1240319	3012202	256774
Нижегородская область	76,6	3247,7	50,6	30598	21751	1069280	2790966	219658
Московская область	44,3	7423,5	45,5	40509	28450	3213873	7237874	634692
Москва	2,6	12380,7	70,2	59203	44902	13532598	36338093	1703085
Санкт-Петербург	1,4	5281,6	60,2	41165	29565	3023972	6546014	582306
Республика Коми	416,8	850,5	49,6	31527	20021	523211	3051661	200437
ЯНАО	769,3	536,0	75,2	67521	28701	1813393	10219150	1097131
Ярославская область	36,2	1270,7	49,3	27819	17874	432019	1226233	81915
ХМАО	534,8	1646,1	62,3	44162	26409	3136831	11654167	804103
Алтайский край	168,0	2365,7	43,0	21485	14957	492138	871625	75285

Изучая социально-экономическое положение исследуемых регионов отметим, что Алтайский край существенно уступает практически всем, из перечисленных субъектов и характеризуется следующими показателями: низкой заработной платой, которая формирует слабую покупательскую способность населения и как следствие низкий спрос на продукцию местных компаний; величиной валового регионального продукта значительно ниже, чем у большинства регионов-эмитентов облигаций; самыми низкими показателями основных фондов и инвестиций в основной капитал среди анализируемой группы. Объем доходов бюджета Алтайского края за 2017 г. составил 84965 млн. руб., расходов – 83524 млн. руб. С точки зрения долговой устойчивости Алтайский край занимает более выгодную позицию, т.к. имеет один из самых низких показателей госдолга среди всех субъектов федерации. По состоянию на 01.01.2016 г. величина госдолга Алтайского края составляла 2442 млн. руб. или 6% по отношению к объемам доходов бюджета, что соответствует наивысшей группе устойчивости согласно классификации Минфина. В настоящий момент на рынке ценных бумаг обращаются облигации 35 субъектов федерации, что составляет 41,2% от общего количества субъектов РФ. За 2017 г. субъекты РФ привлекли 212281 млн. руб. заемных средств через облигационный механизм. Средняя дюрация составила 4,5 лет, а доходность 8,30%.

Проведем идентификацию потенциальных облигаций Алтайского края на предмет их соответствия одному из 4 эшелонов по методике эшелонирования регионов, предложенную Грузиной Е., Ермаком А. и Комиссаровым К. (Грузина, Ермак, & Комиссаров, 2007) (таблица 3).

Таблица 3. Критерии эшелонирования рынка субфедеральных займов (Грузина, Ермак, & Комиссаров, 2007)
Table 3 Criteria for the separation of the market for sub-federal loans (Грузина, Ермак, & Комиссаров)

Критерий	1 эшелон	2 эшелон	3 эшелон	4 эшелон
Уровень кредитного качества	AAA-AA-A-BBB	A-BBB-BB-B	BB- - B-CCC-CC	CC-C
Объем доходов бюджета, млрд. руб.	Свыше 400	200-400	100-200	Меньше 100
Заем, млрд. руб.	От 2	1-2	0,3-1,0	Меньше 0,3
Дополнительная привлекательность	Обязательное наличие рейтинга международных агентств (не ниже BB-)	Наличие рейтинга международных агентств, наличие гарантий третьих лиц	-	-

Как видно из таблицы 3, Алтайский край по уровню кредитного качества можно отнести к 3 эшелону. Объем доходов бюджета региона за 2018 г. составил чуть более 100 млрд. руб., что также относится к 3 эшелону. Заемные средства Алтайского края одни из самых низких по всем субъектам РФ и в настоящий момент составляют 2 млрд. руб. (что относится ко 2 эшелону). Рейтинги международных агентств и гарантии третьих лиц отсутствуют.

Объективно оценить инвестиционный потенциал субъекта-эмитента, на наш взгляд, возможно опираясь на анализ его финансового положения и экономических возможностей. Принятие решения об эмиссии субфедеральных облигаций должно базироваться на оценке финансовой устойчивости и стабильности функционирования региона, изучении социально-экономического положения и анализе потенциала экономического роста субъекта (рисунок 5).



Рисунок 5. Схема принятия решения об эмиссии субфедеральных облигаций на основе оценки потенциала субфедеральных облигаций (составлено автором статьи)
Figure 5 Decision making scheme for issuing subfederal bonds based on an assessment of the potential of subfederal bonds (compiled by the authors of the article)

Устойчивость и стабильность функционирования региона, по нашему мнению, может быть охарактеризована показателями долговой устойчивости региона и кредитным рейтингом эмитента. Долговая устойчивость Алтайского края находится на удовлетворительном уровне, т.к. регион в настоящий момент имеет один из самых низких показателей госдолга среди всех субъектов РФ. По состоянию на 01.01.2016 г. величина госдолга Алтайского края составляла 2442 млн. руб. или 6% по отношению к объемам доходов, что соответствует наивысшей группе устойчивости согласно классификации Минфина

Кредитный рейтинг Алтайского края в соответствии с показателями рейтингового агентства Эксперт РА соответствует значению «ВВВ-», что отражает умеренный уровень кредитоспособности (финансовой надежности, финансовой устойчивости) по сравнению с другими объектами рейтинга в РФ, при этом присутствует более высокая чувствительность к

воздействию негативных изменений экономической конъюнктуры, чем у объектов рейтинга в рейтинговой категории «А».

Социально-экономическое положение региона, прежде всего, может быть охарактеризовано такими показателями, как – площадь и геополитическое расположение субъекта, численность населения, доля занятых в регионе, среднедушевые доходы населения, ВРП, основные фонды в экономике, инвестиции в основной капитал. Социально-экономическое положение Алтайского края, как показал проведенный выше анализ, существенно уступает практически всем субъектам федерации исследуемой группы. Край в настоящий момент характеризуется следующими показателями:

- низкой заработной платой, которая формирует слабую покупательскую способность населения и как следствие низкий спрос на продукцию местных компаний;
- величиной валового регионального продукта значительно ниже, чем у большинства регионов-эмитентов облигаций;
- самыми низкими показателями основных фондов и инвестиций в основной капитал среди анализируемой группы.

Потенциал экономического роста определяется способностью субъекта федерации достигать поставленных экономических, финансовых и инвестиционных целей. Для характеристики экономического потенциала региона необходимо изучить динамику следующих показателей: бюджета региона, способность к самофинансированию, социально-экономических показателей, реализованные, действующие и планируемые крупные инвестиционные проекты (таблица 5).

Таблица 5. Показатели, характеризующие экономический потенциал Алтайского края в динамике за 2013-2017 гг.

(составлено автором статьи основываясь на Егоренко, 2017)

Table 5 Indicators characterizing the economic potential of the Altai Territory in the dynamics for 2013-2017 (compiled by the authors of the article based on Егоренко, 2017)

Показатель на начало года	2013	2014	2015	2016	2017
Численность населения, тыс. чел.	2398,7	2390,6	2384,8	2376,7	2365,7
Доля занятых, %	45,0	45,0	44,6	44,9	43,0
Среднедушевые доходы (руб. в мес.)	13628,9	15979,0	18433,5	20989	21485
ВРП (за предыдущий год), млн. руб.	336183,8	370555	410824,6	447906,9	492138
Основные фонды в экономике (за предыдущий год), млн. руб.	797922	870401	907099	931166	871625
Инвестиции в основной капитал (за предыдущий год), млн. руб.	83834	92930	102169	91855	75285

Как свидетельствуют данные таблицы 5, Алтайский край характеризуется довольно слабым экономическим потенциалом, что подтверждается: неукоснительным снижением численности населения региона за весь рассматриваемый период; снижением доли занятых в экономике края; замедлением темпов роста среднедушевых доходов за 2016-2017 гг.; снижением величины основных фондов в экономике субъекта за 2016-2017 гг.; снижением объемов инвестиций в основной капитал в 2015-2017 гг.

Непосредственно само принятие решения об эмиссии субфедеральных облигаций происходит в результате оценки потенциала субфедеральных облигаций на основе применения совокупности различных методов: аналогового метода (основанного на изучении опыта эмиссии субфедеральных облигаций другими регионами России), метода экспертных оценок (когда в процессе рассмотрения вопроса привлекаются различные эксперты, а именно: представители высшей научной школы, органов власти, профильные экономисты и финансисты и т.д.), методов экономического и системного анализа, обобщения и систематизации (таблица 6).

Принимая во внимание рассмотренные выше показатели Алтайского края, полагаем, что в настоящий момент решение об эмиссии субфедеральных облигаций может быть преждевременным. В первую очередь это связано с рисками размещения облигационного займа, который может быть не востребован финансовым рынком в полном объеме в связи с низкой оценкой субъекта-эмитента. Высокие риски, связанные с облигациями анализируемого региона могут быть частично компенсированы уровнем их доходности. Однако в данном случае возникает вопрос экономической целесообразности данного источника финансирования для Алтайского края.

Полагаем, что предложенная в данной статье методика оценки потенциала субфедеральных облигаций может быть полезна руководителям финансовых и экономических структур субъектов регионов при принятии финансовых решений.

Таблица 6. Результаты оценки потенциала субфедеральных облигаций Алтайского края на современном этапе его экономического развития на основе системы методов (составлено автором статьи основываясь на Егоренко, 2017)
Table 6 The results of the assessment of the potential of sub-federal bonds of the Altai Territory at the present stage of its economic development based on a system of methods (compiled by the authors of the article based on Egorenko, 2017)

Критерий	Используемый метод оценки критерия и его описание	Результат оценки критерия		
		Высокий	Средний	Низкий
Социально-экономические показатели региона	Экономический анализ (анализ ключевых социально-экономических показателей, представленных в таблице 2)			√
Кредитный рейтинг Алтайского края	Экспертный метод (данные представлены консалтинговым агентством «Эксперт РА»)		√	
Объем доходов бюджета	Аналоговый метод (один из самых высоко дотационных регионов среди всех субъектов РФ)			√
Долговая устойчивость региона	Аналоговый метод (один из самых низких размеров госдолга среди всех субъектов РФ)		√	
Экономический потенциал региона	Экономический анализ (анализ ключевых экономических показателей, характеризующих потенциал экономического развития региона, представленных в таблице 5)			√
Итоговая оценка				
Инвестиционная привлекательность облигации для инвестора	Экономический анализ (на основе анализа вышеперечисленных показателей)			√

Выводы и предложения *Conclusions and recommendations*

В настоящий момент основными тенденциями финансовой политики Минфина РФ являются – повышение самостоятельности и независимости субъектов РФ. Одним из источников финансирования расходов региональных бюджетов является эмиссия субфедеральных облигаций. Однако в настоящее время не существует методики оценки эффективности принятия решения о целесообразности привлечении облигационных субфедеральных займов. Как показали исследования, в настоящий момент российскому рублевому облигационному рынку свойственен существенный рост объемов обращения, изменение качественной структуры рынка в пользу увеличения доли облигации первого эшелона (с

высоким кредитным качеством), рост эмиссионной активности наиболее экономически развитых субъектов РФ (таких как Москва Ханты-мансийск, Санкт-Петербург, Красноярский край и т.д.).

Анализ темпов роста российского рублевого облигационного рынка в сравнении с ключевыми макроэкономическими показателями свидетельствовал о тесной взаимосвязи темпов роста облигационных займов и ключевых показателей. Т.е. чем хуже была динамика таких показателей как: инфляция, курс национальной валюты, ключевая ставка, стоимость 1 барреля нефти, тем менее охотно инвесторы вкладывали свои средства в субфедеральные облигации регионов России.

Анализ уровня социально-экономического развития Алтайского края в сравнении с наиболее привлекательными для инвесторов субъектами РФ показал, что край уступает практически по всем показателям и характеризуется низкой заработной платой, низкой долей занятых в экономике, низким ВРП и инвестициями в основной капитал;

В результате выполненного анализа была предложена авторская методика принятия решения об эмиссии субфедеральных облигаций на основе оценки их потенциала. Методика предполагает:

- комплексную оценку устойчивости и стабильности функционирования субъекта федерации, социально-экономического положения и потенциала экономического роста региона;
- оценку потенциала субфедеральных облигаций на основе изучения кредитного рейтинга региона, уровня долговой нагрузки и инвестиционной привлекательности ценных бумаг;
- непосредственное принятие решения об эмиссии субфедеральных облигаций, на основе комплексной оценки системы критериев, таких как: социально-экономические показатели региона, кредитный рейтинг, объем доходов, долговую устойчивость, экономический потенциал и др. используя методы экономического анализа, экспертного и аналогового методов.

Summary

The economy of the Russian Federation cannot develop effectively without the development of its subjects. The search for financial resources, independence from federal subsidies and debt sustainability are those areas of fiscal policy that are currently becoming the most important. The purpose of this study is to formulate a method for making an informed decision on the issue of sub-federal bonds, based on an assessment of their potential. To achieve this purpose, the methods of economic and system analysis, synthesis, synthesis, empirical methods, methods of abstraction and

analogies were used. The main issues discussed in the article are: what are the risks of infrastructure bonds for the issuing region, what place can infrastructure bonds have in the system of financial support for the region's activities, what can be the size of the maximum permissible level of the region's domestic debt. The market is characterized by a significant increase in circulation. During the period under review, the volume of the bond market grew almost 4.5 times. On average, the market is growing by 20% per year. An analysis of the qualitative structure of the subfederal bond market shows that the share of bonds of regional emitters of the first echelon is growing (with high credit quality) and the share of the second and third echelons is decreasing.

Analysis of the basic social and economic indicators of the regions that are part of the key issuers of sub-federal bonds in comparison with the Altai Territory showed that the Altai Territory is significantly inferior to almost all subjects. From the point of view of debt sustainability, the Altai Territory occupies a more advantageous position, since has one of the lowest indicators of public debt among all the subjects of the federation. Based on the study, the bonds of the Altai Territory can be attributed to the third echelon, however, if there is a rating of international agencies and additional guarantees of third parties, as well as the required level of credit quality - to the second. Based on the research, the author proposed a method for assessing the potential of a regional bond, which is based on an assessment of the financial stability and stability of the region, a study of the socio-economic situation and an analysis of the economic growth potential of the entity. Having tested the author's technique on the example of the Altai Territory, it was concluded that, despite a satisfactory level of debt sustainability, the other characteristics reflect the weak potential of the bonds of the region studied. Therefore, decisions about their emission are premature at the moment.

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FOOD SECURITY – WAYS OF INTEGRATION OF ECONOMIC PRIORITIES AND THE ECOLOGICAL IMPERATIVE

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Abstract. *The socio-economic problems of the agro-industrial complex of Ukraine and importance of the demographic factor in ensuring food security are determined. The factors of degradation of the environment in the agrosphere are indicated. The economic mechanism of nature use must be embedded in the economic system, and not be a distinct set of measures and tools aimed at addressing certain environmental problems. The main task of planning measures to ensure environmental safety is development of integrated target ecological programmes (national, regional, and internal management levels), which include measures for sustainable and safe nature management, oriented towards ecologically safe food products.*

The aim of the paper is to reveal the role of food security in integrating economic priorities and the ecological imperative. The following methods were used in the research: monographic, problem analysis, scientific induction and deduction methods, and adoption of a decision under conditions of uncertainty.

Keywords: *demography, ecology, economy, food, priorities, security.*

Introduction

Existence of human society, as well as an individual's life, depends on many factors. Among the most important are: providing food and a favorable living environment. That is why many state resolutions and international agreements are devoted to the issues of food security and environmental protection.

The right to full nutrition and protection against hunger is an integral part of the International Covenant on Human Rights (1948) and the International Covenant on Economic, Social and Cultural Rights (1966). Later, the "Rome Declaration on World Food Security" (1996) established the right of every person for safe and good nutrition, as well as the right of everyone to be free from hunger. In 1947, the UN FAO issues special reports analyzing food security of the population of all countries of the world. The reports show that a positive decision on the food security issue has not yet been found in many countries around the world (The Food and Agriculture..., 2017).

Based on these international documents, Ukraine has developed the Law "On Food Security of Ukraine" (1997), which defines economic and social foundations of full provision of high-quality food products to the population of Ukraine. Though there are fierce discussions around this law, it plays an important role in targeting state structures to work to provide the population with food in the required amount and quality.

At the same time, a number of Laws of Ukraine are aimed at protecting the natural environment and biodiversity on the territory of the state. They include the Law of Ukraine "On Protection of Atmospheric Air" (1992), the Law of Ukraine "On Environmental Expertise" (1995), the Law of Ukraine "On Pesticides and Agrochemicals" (1995), the Law of Ukraine "On Environmental Network of Ukraine" (2004), the Law of Ukraine "On Basic Principles of Environmental Policy of Ukraine for the Period till 2020" (2010), and so on.

Despite the legislative, legal and economic justification, between the activity of agricultural enterprises, which is the basis of food production, and implementation of environmental laws, there are many sharp contradictions, and often direct antagonism. This fact is recognized by many experts. Therefore, finding ways to alleviate such contradictions and developing methods for integrating food and environmental security is an urgent task.

The aim of the paper is to reveal the role of food security in integrating economic priorities and the ecological imperative. The following methods were used in the research: monographic, problem analyses, scientific induction and deduction methods, adoption of a decision under conditions of uncertainty.

Food security

Food security means supplying food to the population of an individual country and the world as a whole. It also takes into account the need for food products of subsequent generations of the population. Therefore, food security technologies should be oriented not only to the current production of food, but also to the preservation of agrarian resources – areas of land suitable for agricultural use, soil fertility, productivity of natural forage land, etc.

International organizations have developed normative standards for food security. They, in particular, provide for the production of 300 kg of grain per person per year. The daily caloric intake of individuals should not be below 2500 kcal. The diet should include proteins in the amount of 0.83 g protein per 1 kg of body weight. Their source is mainly meat and fish products, as well as legumes. The indicators of food security also include mandatory state grain stock in the amount of 17% of annual consumption (UN norm), and the limit of the cost of the family budget for foodstuffs should not be more than 50% (Proshchalykina, 2016).

Solving the problem of food security during the last century is a priority task in all the countries of the world. This work is under UN control. The World Food Programme (WFP) is the largest humanitarian organization in the world, whose members are actively working on food security issues around the world. The implementation of food security programmes developed by the UN FAO has led to a steady increase in global production of many types of agricultural products over the last two decades, as is evident from the example of the two leading crops – wheat and corn (Fig. 1). But the level of food security is not the same across the world. It is high in developed countries of Europe and the USA and unsatisfactory in a number of countries of Africa and Asia (Khinkis, 2015).

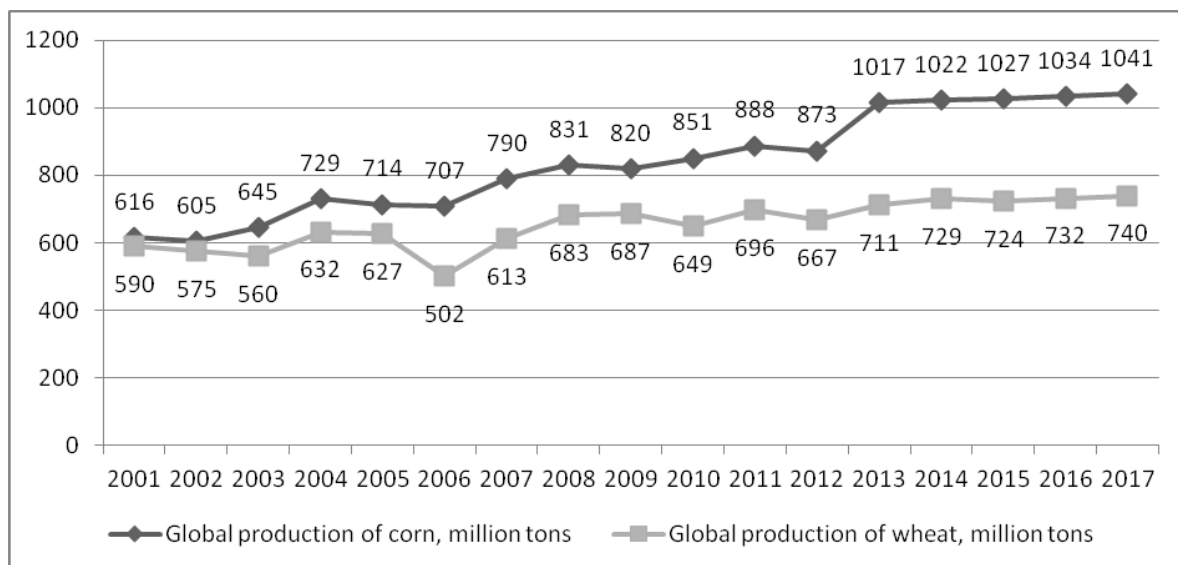


Figure 1 Volume of world grain and wheat production in 2001–2017, million tons
(Кернасюк, 2017)

In the system of comparative international assessments of the level of food security, it was decided to introduce seven gradations:

I level – catastrophic. Daily calorie consumption per one person is 1500–1800 kcal, which corresponds to chronic malnutrition. **II level – critical.**

Average daily consumption is 1800–2200 kcal per person. It provides simple reproduction of the population. **III level – minimal.** 2300–2800 kcal per day per person. **IV level – sufficient.** Average daily consumption is in the range of 2800–3600 kcal per person, but it is not balanced by such elements of nutrition as proteins, carbohydrates and fats. **V level – normative.** Average daily consumption is within the range of 3300–3600 kcal per person. The diet is balanced with proteins, vitamins and other important ingredients. **VI level – optimal.** Consumption is balanced with all important nutritional components and includes the use of eco-friendly food. **VII level – promising.** The level of nutrition is optimal for all segments of the population (Khomyn, 2012).

Ukraine since 2000 has provided its population with the IV level of food security. For natural conditions in Ukraine, this indicator is unacceptably low. It is due to a set of reasons, basically, not natural, but of political and social nature.

Socio-economic problems of the agro-industrial complex of Ukraine

Ukraine has high potential for agricultural production, which is at the heart of food security. Ukraine was a breadbasket for all the republics of the USSR, and now it makes a significant contribution to the food programmes of the countries of Western Europe. Purposeful work is being done to provide agricultural products to the domestic market of Ukraine. On average per capita, Ukraine annually produces grains and legumes – 423.3 kg, sugar beet – 280.1 kg, potatoes – 385.9 kg, meat of all kinds – 36.1 kg, milk of all kinds – 285.7 kg (Дейнеко et al., 2006).

The natural and climatic conditions of Ukraine contribute to successful agricultural management. Agricultural lands in Ukraine are mostly black earths and have high fertility potential. The climate of Ukraine is moderate with enough rainfall. The area of arable land is about 33 million hectares, while in Europe it constitutes (in descending order): France – 18 million hectares, Poland – 12.1, Germany – 11.9, Great Britain – only 6.

However, the level of food supply in Ukraine is insufficient. It can be confirmed by the so-called Global Food Security Index. This index is based on 28 indicators, which include real availability of food products, size of food losses, cost of scientific research in the field of agriculture, level of GDP per capita, etc. As of 2017, Ukraine, according to the global food security index, occupies 52nd place among 109 countries. Taking into account the natural and social conditions in Ukraine, this is a very low indicator. In addition, it is the lowest among other European states.

The unsatisfactory solution to the food security problem in Ukraine is determined by the complex economic and social conditions. Among the reasons for the crisis situation in the agricultural sector, the main one is low yields of agricultural crops due to lack of measures to protect and enhance the fertility of soils. Other reasons are also connected with it: low productivity of farm animals,

reduction of arable land through water and wind erosion, soil fertility decline, violation of crop rotation, high prices of fuel, fertilizers and pesticides.

According to estimates of international experts, Ukraine uses its agrarian potential only at 40%. In particular, wheat yield potential in Ukraine was used only at 40%, corn – at 60%. The yields of main crops are 1.5-2 times lower in Ukraine than in other countries (Fig. 2).

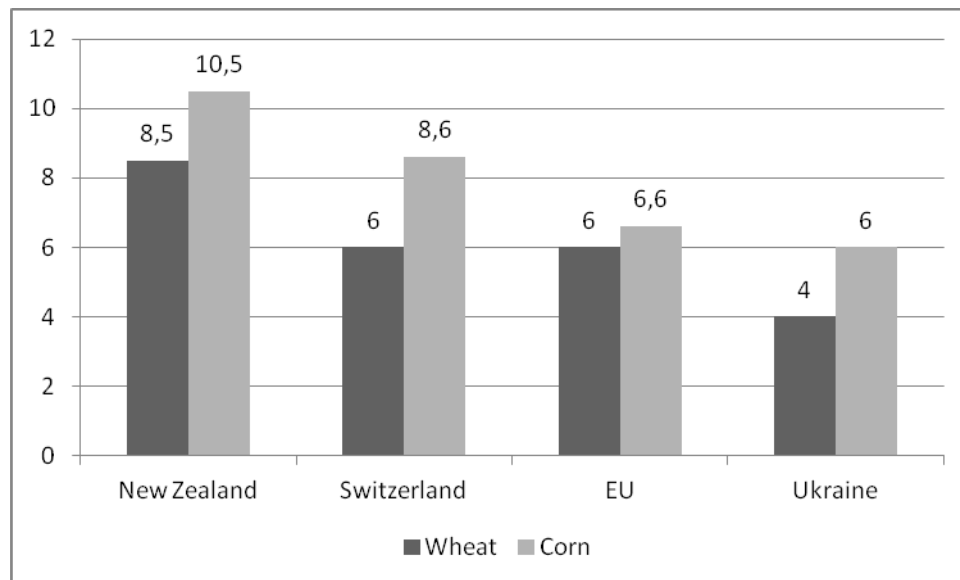


Figure 2 Yields of wheat and corn in Ukraine compared with other countries in 2017, t/ha (Agribusiness of Ukraine in graphs and maps, 2017)

The structure of agricultural production also contributes to the unsatisfactory solution of Ukraine's food security problem. Over the past three decades, the ratio of cultivated crops has changed significantly. According to the State Statistics Service of Ukraine, during this period, sunflower and rape production increased sharply, the production of grain and leguminous crops increased to a lesser extent, and the production of sugar beet root crops declined substantially.

One of the major causes of Ukraine's food security concerns is an increase in grain exports. Thus, in 2015, the volume of exports as a percentage of the total volume of crop was less than 40%, in 2016 – more than 60%. And in 2017, it increased by 3.9% compared with 2016. The change in the structure of crop production has led to a serious reorientation of markets. To date, the share of grain processed in Ukraine has fallen to 45% of its gross amount. Thus, the market has become export-oriented. At the same time, grain exports are mainly supplied as raw materials, and not processed products.

The grain staple, in the commodity structure of supply from Ukraine to abroad, is followed by walnuts (USD 42 million per year), frozen berries (USD

10 million), as well as apples and pears (USD 5 million). Profitable is export of rapeseed oil – in monetary terms, the export of rapeseed oil gives from USD 1.15 million to 3.89 million a year. Due to the profit orientation of market mechanisms, food crops which are needed to satisfy the population of Ukraine are replaced by those that give more profit. So, Ukraine is the world's largest producer and exporter of sunflower oil, exported to more than 100 countries. Ukraine holds world leadership among exporters of sunflower oil (State Statistics Service, 2018a).

The combined negative impact on the process of sustainable food production is caused by the tendency to reducing the number of farm animals that has been formed in Ukraine. For the past 16 years, the number of cattle alone has decreased by almost three times, including the number of cows that decreased twice (Fig. 3). This process was accompanied by a drop in the number of breeding goats, sheep and pigs.

Consequently, there was a negative tendency to reduce milk production by 24% (Fig. 4). In addition to the shortages of dairy and meat products, lack of organic fertilizers – primarily manure, associated with decline in the number of cattle, causes a decrease in the amount of humus in arable soils. The soil fertility is negatively affected by the tendency to use post-drought vegetation residues as biofuels. As a result, from 2000 to 2017 alone humus content in soils in Ukraine decreased from 3.36 to 3.14%.

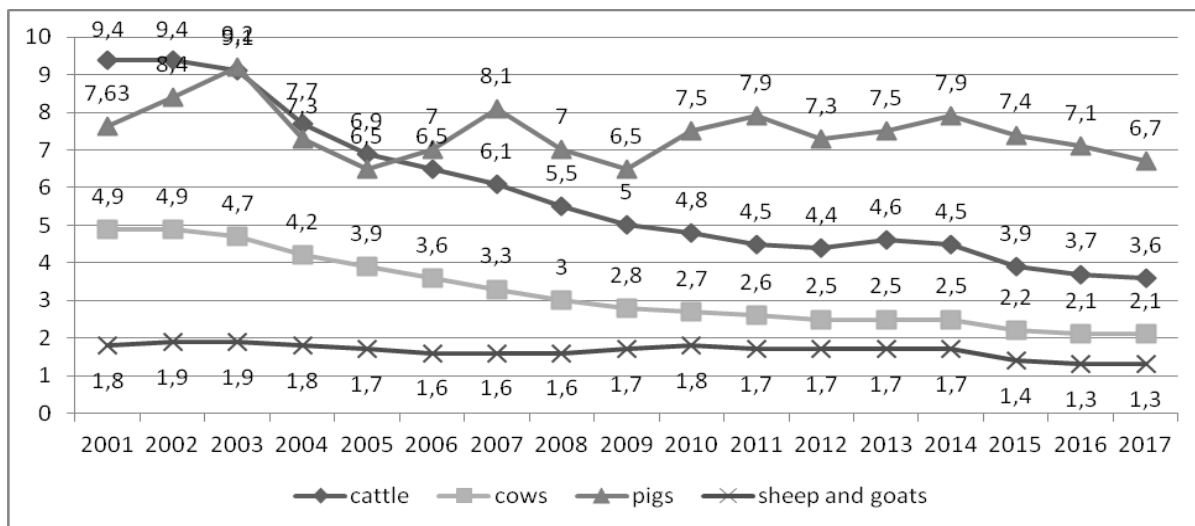


Figure 3 Dynamics of livestock population of farm animals in Ukraine in 2001–2017, million heads (State Statistics Service, 2018a)

At the same time, there was a positive tendency to increase meat production by 53%, eggs by 61%, grain and leguminous plants 1.5 times, sunflower seeds 5 times, potatoes by 28%, vegetable crops by 60% (Fig. 5).

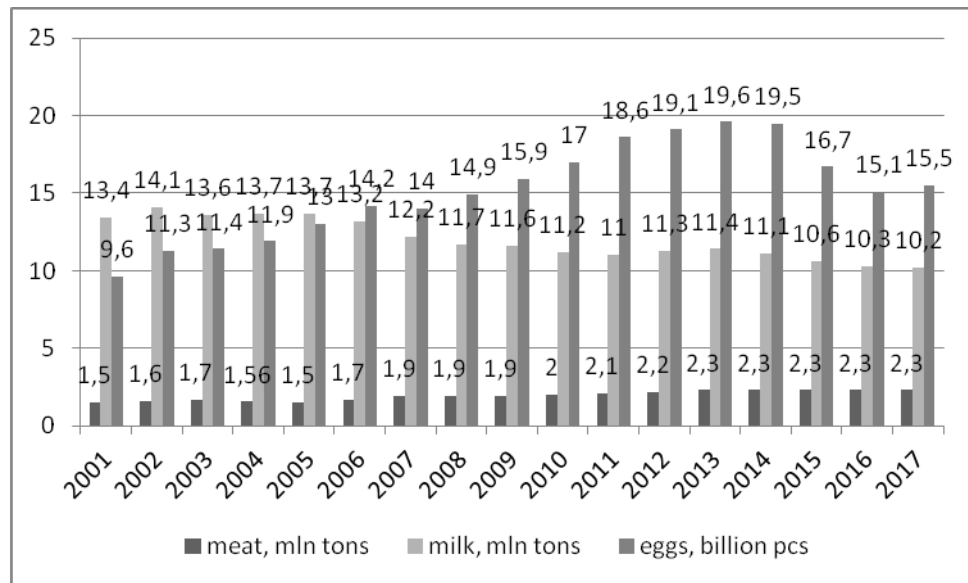


Figure 4 Dynamics of livestock production in Ukraine in 2001–2017, million tons (State Statistics Service, 2018a)

According to the State Statistics Service of Ukraine, in 2017, agriculture was the most profitable industry: 90% of all agricultural enterprises in Ukraine received profits. This is a paradox in the context of an extremely low food security index. In Ukraine, food prices have reached levels typical of the UK, Germany, the United States and other developed economies of the world, while the incomes of the bulk of the population are much lower (State Statistics Service of Ukrain, 2018).

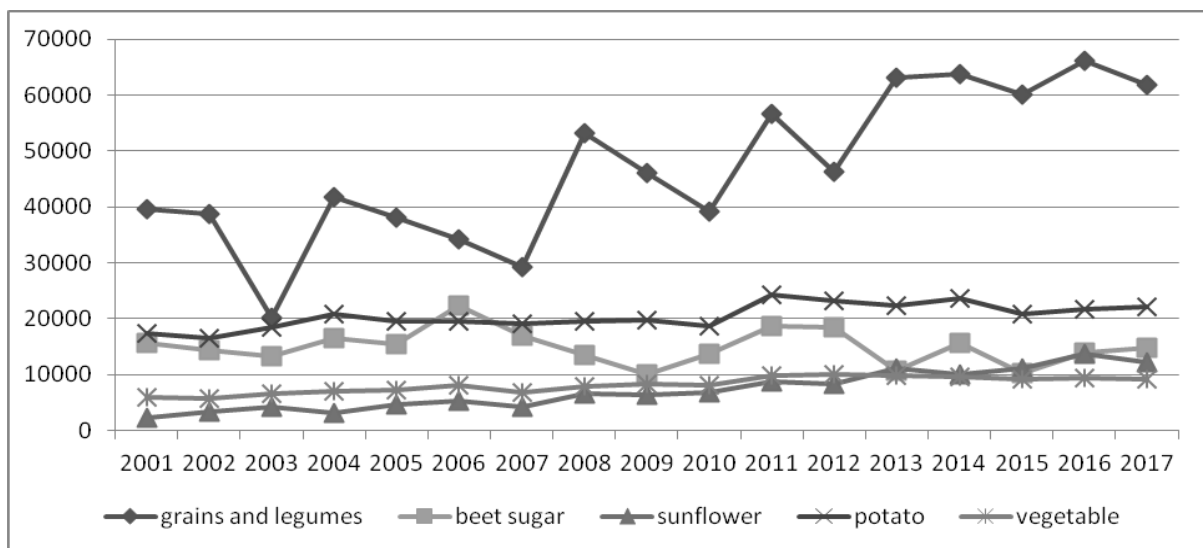


Figure 5 Dynamics of crop production in Ukraine in 2001–2017, thousand tons (State Statistics Service, 2018a)

Restoration of state control over the food market will not only reduce the cost of food for the end consumer, but also increase the quality by several times, which will ultimately affect the health of the population.

Demographic factor

Over the past three decades, a solution to the food problem and nature conservation in Ukraine has taken place against the backdrop of complex transition processes from a planned to a market economy. The social structure of the population changed significantly. Private farms and agricultural holdings replaced collective farms, while the network of protected natural objects – reserves, national parks – began to develop actively.

The most important factor that has been reflected in all sectors of the economy was depopulation. Since 1951, the population has steadily increased in Ukraine, but it has also steadily declined since 1990 (State Statistics Service, 2018b).

The reason for this is not only reduction of fertility and increase in mortality, but also emigration of the able-bodied population. At the same time, during the last decades, aging of the population of Ukraine took place.

Demographic processes are reflected in the employment of the population in agricultural production. In Ukraine, in 1990, 5 million people were employed in agriculture, forestry and fisheries, which was 19.8% of the total. By 2015, the number of employees in this sector of the economy decreased to 3.1 million people and constituted 17.2%. For comparison, according to the Statistical Service of the European Union (Eurostat), in 28 EU Member States in 2014, employment in the agrarian sector was 5%, in industry – 21.9% and services – 73.1%. According to the Statestat of Ukraine in 2015, the respective proportions for our country were as follows: 19.1, 15.1 and 65.8%. This suggests lower efficiency of using agricultural workers in Ukraine than in other European countries (Statistical Service of the European Union, 2018).

The low growth rates of wages in agriculture, which are lagging behind the level of inflation, and poor social infrastructure in the countryside, also cause reduction in the number of workers in agriculture.

There are world-wide indicators of the welfare of the population tested in terms of food security, environmental friendliness, social sustainability, etc. One of them is the so-called "index of national happiness". It is calculated on the basis of five criteria: GDP per capita, social support, life expectancy, social freedom of citizens, attitude to corruption (World Happiness Report, 2017).

In 2017, Ukraine among 155 countries, according to the index of happiness, took only 132th place. Taken together, the presented data indicate a serious contradiction in the system of "food security – environmental parameters

of the habitat" (World Happiness Report, 2017).

Factors of environment degradation in the agrosphere

Agricultural activities led to formation of a special part of the biosphere – agrosphere. The agrosphere is usually understood as part of the biosphere, used for various forms of agricultural production. The natural environment in the agrosphere is rapidly transforming and degrading under the influence of various factors, in particular: impact of agricultural machines on the soil cover and atmosphere, chemisation in its various forms with the use of fertilizers and pesticides, melioration, water and wind erosion, etc.

In Ukraine, negative changes in the agrosphere are deep enough. They are the result of joint impact of two processes – extensification, where the area under the arable land and pasture occupies the maximum possible size of the country's territory, and intensification, consisting in the pursuit of the selection of crops and varieties, fertilizers and pesticides to increase the yield of raw materials and food. According to the World Bank, up to 10 tons of soil is lost per ton of grain produced in Ukraine. The main types of negative impact of agricultural machinery on the natural environment are gaseous, solid and liquid emissions. First of all, they are carbon dioxide, nitrogen, lead dioxide, soot (Weizsaecker & Wijkman, 2018).

A number of modern agrotechnologies negatively affect the quality of food. Use of high doses of mineral fertilizers and pesticides causes pollution of the resulting products by heavy metals (Mn, Fe, Zn, Cd), nitrates, residual quantities of pesticides. Products grown in technogenically polluted land in areas of mining and large industrial enterprises are also dangerous for human health. To date, falsification of foodstuffs is quite widespread in Ukraine. The problem of quality and safety of food products is relevant in Ukraine in terms of access to international markets (Nagornaia & Savchuk, 2014).

It should be emphasized that basic elements of the agrosphere are unbalanced and do not work for triple socio-economic-ecological progress; therefore, our present must be considered as a new geological era – Anthropocene, the peculiarity of which is the global impact of man on the planet. There is a deep contradiction between economic benchmarks and the need to preserve the natural environment. Therefore, many experts consider the ecological situation in Ukraine and other CIS countries as a crisis (Bobylev & Zakharov, 2009).

The task of integrating the economic and environmental spheres of knowledge is currently solved by the so-called "ecological economics". Ecological economics as a science of human economic activity should be based on the environmental laws. In 1989, the International Society of Ecological

Economics was formed, the task of which was development of ecological economics as an interdisciplinary science that provided world sustainable development. There is no single definition of this new science now. Usually, ecological economics deals with cost methods of interpreting indicators of sustainable development, compatible with the current system of economic payments and taxes. It is opposed to the "economics of nature use", which considers nature as an inexhaustible source of resources for agriculture and industry (Blazhevych, 2015).

N.N. Rodzevich emphasized that in most countries of the world a free (unregulated) market economy prevailed. Such an unregulated market economy and the ecological imperative are incompatible. A market economy is characterized by a constant desire for profit, which is accompanied by an increase in production and, consequently, an increase in consumption. A productive market economy is built on increasing consumption of natural resources and inevitably accompanied by massive pollution of the environment by waste from production and consumption (Rodzevich, 2017).

A modern ecological economy seeks a compromise between the requirements of powerful economic development and the need to protect the environment. A.M. Tretiak et al. define the purpose of land tenure in agronomy in the following way: "the purpose of land use is to obtain the highest benefit, the highest effect of land while observing the requirements of its conservation and improvement". Some authors include complying with requirements of the ecological imperative in the task of environmentalizing the economy, and give it their own definition. The ecological imperative is defined as "a set of compulsory socially necessary requirements, rules, standards in relation to the regulation of functioning of the land relations institution, which provides a sufficient level of environmental balance and economic efficiency of land use in society" (Третяк et al., 2017).

This compromise definition will not solve the problems of environmentalization of the agro-industrial complex. But compromise solutions are never effective. In fact, the ecological imperative should be defined as a system of total prohibitions on anti-ecological technologies.

Yu. Chukhlib rightly stressed that "for the ecologization of agricultural production, it is necessary to carry out a comprehensive study of all aspects and spheres of the agricultural enterprise". In order to overcome the crisis phenomena in the area of providing the population with food and preserving the quality of the natural environment, integration of economic and environmental interests and goals in all branches of agriculture is necessary. This is a complicated process (Chukhlib, 2012).

Ecologization in the agro-industrial sector should include three most important elements: a) introduction of resource-saving and nature-disrupting

technologies into production, b) integrated approach to the use of natural resources with a focus on their protection, c) preservation of natural cleanliness of the environment (Chukhlib, 2012).

In order to address the food security problem, taking into account the requirements of ecologization of production in Ukraine, it is necessary: a) to introduce scientifically grounded flexible crop rotation, which may be short-rotational, but with a bean area of not less than 30–40% of the total area; b) to revive the livestock sector with increase in the number of cattle to the level of full supplying of arable land with manure, which will simultaneously solve the problem of providing the population with dairy products at affordable prices; c) to use for the production of biofuels only raw materials of fast growing tree species cultivated in non-fertile land plots which are not suitable for agricultural use, biomass of algae or certain types of bacteria.

At present, even in developed countries, these approaches are only proclaimed, but are not a guide for practical work. Capitalism is an economic system of production and distribution based on private property and freedom of business. The main criterion for making economic decisions is the desire to increase capital before making a profit. New agricultural technologies are considered not from the point of view of their environmental safety, but from the point of view of possible reduction of wage costs, fertilizers or other elements of technology. In modern agricultural technologies, there is a clear tendency to save "on ecology". Thus, even in developed countries, the share of environmental spending in the total GDP does not exceed 1–1.5% (Tsybuliak, 2015).

The concept of sustainable development requires change in the outlook in all strata of society and target settings of being. Therefore, in modern conditions it is not realized. At this stage of civilization development, as the first step, it is necessary to rely on the concept of ecological and economic security, which would cover socio-ecological and economic systems. This approach is realistic and can be productive, but under the condition of "equality" of all three subsystems: social, environmental and economic.

An important element of environmentalization and resource conservation is embedding of environmental ideas in not only agricultural processes, but also in the system of education. Agricultural universities in Ukraine actively work in this direction (Onopriienko & Onopriienko, 2018).

In the developed countries, restructuring of the educational process in schools in this direction has started. For example, a new educational-methodological complex "Green Package" for secondary schools was created by the Organization for Security and Co-operation in Europe, which aims at forming ecocentric worldviews in students, understanding that each of us is personally responsible for preserving the natural environment of our planet.

Conclusions and Suggestions

For creating highly productive, prosperous agriculture, it is necessary to implement a new concept of agrarian sector development and a new economic policy of the state, based on the principle of a non-antagonistic combination of food security and environmental safety of the population.

Taking into account the current situation in Ukraine, the following three mechanisms should be put forward as the priority tasks of ecologization of agriculture: a) banning, in which, in accordance with the requirement of the ecological imperative, certain technologies that have an environmental degradation effect are completely excluded; b) financial-regulatory, which includes obligatory expenditures on environmental protection measures, a system of fines for damage to the natural environment and environmentally hazardous products, incentive payments for the ecologization of technologies for cultivation of agricultural products and foodstuffs; c) innovative, focused on the development of new environmentally friendly technologies. These three distinct positions are the nodal centers of environmentalization of agriculture.

Summary

The aim of this research - to reveal the role of food security in integrating economic priorities and the ecological imperative - was successfully achieved by using the following methods: monographic, problem analysis, scientific induction and deduction methods.

The economic mechanism of nature use must be embedded in the economic system, and not be a distinct set of measures and tools aimed at addressing certain environmental problems. The market character of this mechanism involves the regulatory role of the state, whose function is to establish the main directions, parameters and order of its application.

The main task of planning measures to ensure environmental safety is development of integrated target ecological programmes (national, regional, and internal management levels), which include measures for sustainable and safe nature management, oriented towards ecologically safe food products. In general, independence of food provision and demographic security should be based on a stable and strong national economy and a self-sufficient and sustainable agro-industrial sector.

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IEDZĪVOTĀJU IENĀKUMA NODOKĻA PIEMĒROŠANAS DARBA SAMAKSAI IZPĒTE BALTIJAS VALSTĪS

Research on the Personal Income Tax Application to Wages in the Baltic States

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Abstract. *Personal income tax and social insurance contributions must be paid on wages into the budget, the revenue of which most directly affects the changes in the number of persons engaged in the national economy and the increase of the average wage. To be able to evaluate how favourable the personal income tax systems applicable to employees are in the Baltic States, the author compares the factors that affect taxation and the tax burden in Latvia, Lithuania and Estonia, which have experienced tax reforms in the recent years.*

The aim of the research is to perform a comparative study of the requirements and issues of personal income tax application to wages in Latvia, Lithuania, and Estonia. The monographic, comparative and analytical analysis, logical construction, and grouping methods have been used in the research study. Based on the research study, the author has concluded that despite the similarities in the personal income tax systems, each Baltic state has different normative regulation. The tax burden on Estonian taxpayers relative to wages is lower than that in Lithuania and Latvia.

Keywords: *average monthly net wage; non-taxable minimum; personal income tax; preference for dependent person; tax burden; tax rate.*

Ievads

Introduction

Nodokļi ir ne tikai galvenais valsts ienākumu komponents, bet arī iedzīvotāju labklājības un ekonomikas attīstības indekss, tādējādi, valsts var gūt ieņēmumus, lai nodrošinātu ekonomisko izaugsmi un paaugstinātu iedzīvotāju vispārējo dzīves līmeni. Savukārt cilvēki ir viens no svarīgākajiem uzņēmuma stratēģiskajiem resursiem, kas rada un attīsta tā vērtības un nodrošina konkurētspēju Eiropas Savienības (ES) kopējā un pasaules tirgū. Kvalitatīvi cilvēkresursi ir Latvijas tautsaimniecības attīstības pamats, ko apliecina arī ES un Latvijas stratēģiskie plānošanas dokumenti. Latvijā paredzēts radīt apstākļus katra Latvijas iedzīvotāja drošumspējas stiprināšanai, kur kā viena no iespējām ir nostiprināt vidusšķiru, kā rezultātā paaugstinās ienākumi un pirktspēja, kā arī

samazinās nevienlīdzība starp mājsaimniecībām (Latvijas Nacionālais attīstības plāns 2014. – 2020. gadam, 2012). Viens no veidiem kā mazināt ienākumu plaisu un nabadzību ir samazināt nodokļu slogu nodarbinātajiem ar zemiem ienākumiem. Taču ienākumus darba ņēmējiem uzlabo ne tikai atbalstoša nodokļu politika, bet arī darba devēja iespējas maksāt taisnīgu atalgojumu.

Pētījuma mērķis ir veikt iedzīvotāju ienākuma nodokļa piemērošanas darba samaksai prasību un problēmjauditājumus salīdzinošo izpēti Latvijā, Lietuvā un Igaunijā.

Pētījumā izmantota monogrāfiskā metode, salīdzinošās un analītiskās analīzes metodes, loģiski konstruktīvā metode, kā arī grupēšanas metodes.

Metodoloģiska rakstura jautājumi risināti, pamatojoties uz zinātniski teorētisko literatūru, Latvijas un ārzemju autoru zinātniskajiem rakstiem, publikācijām un statistikas datiem, kā arī Latvijas, Lietuvas un Igaunijas nodokļu likumdošanas aktiem. Pētījums veikts par laika periodu no 2016. līdz 2018.gadam, bet par atsevišķiem jautājumiem pētījuma periods ir atšķirīgs. No nodokļu instrumentārija elementiem tiks apskatīti apliekamā objekta noteikšanas kritēriji un likmes.

Iedzīvotāju ienākuma nodokļa piemērošanas teorētiskie aspekti *Theoretical aspects of personal income tax application*

Nodokļu politika var palīdzēt veicināt uzņēmējdarbību, atbalstīt inovācijas un darbavietu izveidi, kas ir viens no galvenajiem struktūrpolitikas mērķiem. Tomēr nodokļu sistēma var arī radīt papildus šķēršļus, pārlietu noslogojot nodokļu maksātājus (Škapars, Šumilo, & Dunska, 2010).

Atvērtā un elastīgā ekonomikā darba tirgū pieprasījums un piedāvājums nosaka atalgojuma līmeni un nodarbināto skaitu. Darba nodokļi, paaugstinot darbaspēka izmaksas, samazina darbaspēka pieprasījumu un nodarbinātību, jo uzņēmums par to pašu budžetu spēj algot mazāk strādājošo. Darba nodokļu ietekmes apmērs ir atkarīgs no darbaspēka pieprasījuma elastības (LR Labklājības ministrija, 2007). Saistība starp darbaspēka nodokļiem un bezdarba līmeni ir pētīta arī Lietuvā, kur pētnieki secināja, ka darbaspēka nodokļi un pabalstu apmēri var ietekmēt cilvēku motivāciju uzsākt darbu, kas vairāk skar mazo algu saņēmējus un ekonomiski neaktīvos iedzīvotājus. Pētnieki atzīst, ka Lietuvā nodokļu slogs zemu algu saņēmējiem ir salīdzinoši augsts, bet kopējais darbaspēka nodokļu slogs ir zems tieši lieliem ienākumiem (Neverauskiene Okuneviciute, Mieziene, & Gataulinas, 2017).

No darba samaksas budžetā jāmaksā iedzīvotāju ienākuma nodoklis un sociālās apdrošināšanas iemaksas, kuru ieņēmumus vistiešāk ietekmē tautsaimniecībā nodarbināto iedzīvotāju skaita izmaiņas un vidējās darba algas

pieaugums. Darbaspēka nodokļu palielinājums tiek pārņemts uz darbiniekiem – samazinās viņa neto alga, bet darbaspēka nodokļu samazinājums tieši pretēji – dod iespēju palielināt darbinieku ienākumus, samazināt nelegālās darba algas vai palielināt darba vietu skaitu. Tātad valdības lēmumi fiskālās politikas jomā ietekmē jebkuru mājsaimniecību, ko savos pētījumos atzīmē S. Laivina un A. Eglīte, jo nodokļi samazina naudu mājsaimniecību apgrozībā, vēl ņemot vērā, ka Latvijā nodokļu slogs darba ienākumiem ir virs ES vidējā līmeņa (Laivina & Eglite, 2011).

A. Vanaga veiktā analīze sniedz teorijas apkopojumu par nodokļu taisnīgumu, ko attiecina uz indivīda maksātspēju. Horizontālā vienlīdzība ir nodokļu sistēmas īpašība, ka vienādiem nodokļu maksātājiem, ir vienāds nodokļu slogs. Vertikālā vienlīdzība ir princips, ka nodokļu maksātājiem ar dažādiem ienākumiem ir jānes arī dažāds nodokļu slogs – nodokļu maksātājam ar augstākiem ienākumiem ir vairāk jānomaksā nodokļos, tātad nodokļu saistībām ir jābūt atbilstošām maksātspējai. Nodokļu sistēmas taisnīgums tiek vērtēts ar terminu progresivitāte, ko raksturo nodokļu maksājumu un ienākumu salīdzinājums sabiedrības grupām pēc ienākumu līmeņa (Vanags, 2010). Pētījumā (Szarowska, 2014) secina, ka nav vienotas formulas, lai noteiktu vertikālā vai horizontālā taisnīguma pakāpi, jo tas ir atkarīgs no individuālās solidaritātes pakāpes sabiedrībā vai ienākumu saņēmēju izvairīšanās pakāpes no nodokļu maksāšanas.

Progresīvais iedzīvotāju ienākuma nodoklis ir galvenokārt tāpēc, lai nodrošinātu taisnīguma principu. Tiek norādīts, ka, no vienas puses, progresīvais iedzīvotāju ienākuma nodoklis bremzē ekonomisko attīstību, jo bremzē indivīda vēlēšanos paaugstināt savus ienākumus, taču, no otras puses, tas veicina zemāk atalgotu strādājošo iesaistīšanos darba tirgū (Piketty & Saez, 2012).

Tomēr vienas pašas iedzīvotāju ienākuma nodokļa likmes vēl nesniedz kopējo ieskatu par darbaspēka nodokļu slogu. Par labāku rādītāju, kā salīdzināt darbaspēka nodokļa slogu, kalpo darbinieka samaksāto darbaspēka nodokļu attiecību pret bruto algu (OECD 2013). P. Dolens and M. Vodopicevs norāda, ka darbaspēka nodokļu izmaksas ir būtisks rādītājs, jo darba nodokļi sadārdzina darbaspēku, līdz ar to samazinot šī darbaspēka starptautisko konkurētspēju samazinot nodarbinātību un palielinot bezdarbu (Dolen & Vodopicevs, 2005).

Nodokļu sistēmas Baltijas valstīs ir vairāk orientētas uz darbaspēka nodokļiem. Salīdzinot Baltijas valstu darbaspēka nodokļu izmaksas strādājošam bez apgādājamiem ar maziem ienākumiem (50% no vidējās bruto algas), var secināt, ka 2016.gadā visaugstākās bija Latvijā - 41% no darbaspēka kopējām izmaksām, Lietuvā 36.5% un Igaunijā 32.9%, kas ir vistuvāk vidējam rādītājam ES – 32.5% (European Union, 2018).

Latvijas valdības stratēģija, attiecībā uz ienākumu nevienlīdzības mazināšanu un ienākumu nodokļu sistēmas progresivitātes palielināšanu, paredz

ieviest divas iedzīvotāju ienākuma nodokļa likmes, būtiski paaugstināt neapliekamo diferencēto minimumu un paaugstinot atvieglojumu par apgādībā esošām personām (Valsts nodokļu politikas pamatnostādnes 2018.-2021. gadam, 2017). Latvijā 2018.gadā īstenotā nodokļu reforma pamatā šīs prasības arī īstenoja, kas bija vērstas uz nodokļa sloga samazināšanu iedzīvotājiem ar zemiem ienākumiem, kuru īpatsvars ir ievērojams. Latvijā 2018.gada oktobrī 65% nodarbināto saņēma bruto algu līdz 1000 EUR mēnesī, savukārt lielākais darba ņēmēju skaits (20.9%) saņēma bruto darba algu 700 - 1000 EUR mēnesī, bet minimālo darba algu vai mazāk saņem 19.9 % no kopējā nodarbināto skaita (LR Centrālā statistikas pārvalde).

Fizisko personu ienākumu nodokļu sistēma pamatā tiek balstīta uz taisnīguma principu. Lietuvā un Igaunijā iedzīvotāju ienākuma nodoklis ir veidots, ievērojot horizontālā taisnīguma principu, kas nozīmē proporcionālās likmes piemērošanu visiem nodokļa maksātājiem. Savukārt Latvijā ar 2018.gadu tiek pielietots vertikālā taisnīguma princips, kas nozīmē, ka nodokļa maksātāji ar lielākiem ienākumiem maksā lielāku nodokli pēc progresīvās likmju skalas. Proportcionālo likmju pozitīvā puse ir tā, ka nodoklis vieglāk ievācams, savukārt progresīvās nodokļa likmes nosaka ar tādu aprēķinu, lai, pieaugot ienākumam, pēc nodokļu samaksas atlikusī ienākuma daļa turpinātu pieaugt un veicinātu iedzīvotāju vēlmi iegūt lielāku ienākumu. Jāatzīst, ka tas ir grūtāk aprēķināms, it sevišķi gadījumos, kad nodokļu maksātājam ir vairāki ienākumu veidi, kuru summēšana iespējama tikai gada beigās.

Iedzīvotāju ienākuma nodokļa ietekmējošo faktoru salīdzinošā izpēte *Comparative study of factors influencing personal income tax*

Baltijas valstīs iedzīvotāju ienākuma nodokļa aprēķināšanu un ar to saistītos noteikumus nosaka attiecīgs Iedzīvotāju ienākuma nodokļa likums un atbilstoši Ministru kabineta noteikumi.

Apskatīsim kādi grozījumi iedzīvotāju ienākuma nodokļa likumdošanā veikti pēdējos gados un kā mainījušies tā aprēķināšanu ietekmējošie faktori (1.tab.). Kad tiek vērtēts nodokļu slogs, it īpaši zemu atalgotiem darbiniekiem, parasti tiek minēti trīs būtiskākie atskaites punkti, tas ir, minimālā alga, ar iedzīvotāju ienākuma nodokli neapliekamais minimums un atvieglojumi par apgādībā esošām personām.

1.tabula. Iedzīvotāju ienākuma nodokli ietekmējošie faktori 2016.- 2018.gadā Baltijas valstīs (autora veidota pēc nodokļu likumdošanas; statistikas datiem)

Table 1 Factors influencing personal income tax from 2016 to 2018 in the Baltic countries (author's elaboration based on tax legislation; statistics)

Rādītāji	Latvija			Lietuva			Igaunija		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Minimālā mēneša darba alga, EUR	370	380	430	380	380	400	430	470	500
Vidējā mēneša bruto alga, EUR	859	926	991*	823	885	936*	1146	1221	1291*
Nodokļa likme, %	23	23	20; 23; 31.4	15	15	15	20	20	20
Maksimālais neapliekamais minimums, EUR	100	115	200	200	310	380	170	180	500
Atvieglojums par apgādājamo, EUR	175	175	200	120	200	0	154	154	154

* Par 2018. gada 3 ceturkšņiem.

Baltijas valstīs ir tendence paaugstināt minimālo mēneša darba algu, kas visaugstākā 2018.gadā ir Igaunijā 500 EUR. Vidējā mēneša bruto alga arī visaugstākā ir Igaunijā, bet visstraujākais tās pieaugums 2018.gada 3 ceturkšņos, salīdzinot ar 2016. gadu, ir Latvijā par 15.4% punktiem, Lietuvā par 13.7% punktiem un Igaunijā par 12.7% punktiem.

Pētāmajā periodā Lietuvā un Igaunijā ir saglabātas nemainīgas proporcionālās iedzīvotāju ienākuma nodokļa likmes, bet Latvijā ar 2018 gadu ieviestas progresīvās iedzīvotāju ienākuma nodokļa likmes. Zemākā iedzīvotāju ienākuma nodokļa likme 20% tiek piemērota mēneša ienākumam līdz 1667 EUR, 23% nodokļa likmi piemēro mēneša ienākumam virs 1667 EUR, kā arī gadījumos, kad darbiniekam darba vietā nav iesniegta algas nodokļu grāmatiņa. Savukārt augstākā 31,4% nodokļa likme tiek piemērota tikai iesniedzot gada deklarāciju, kuru gada ienākums pārsniedz 55000 EUR. Autore atbalsta progresīvās likmes ieviešanu, vienīgi lielāku algu saņēmējiem (virs 4583 EUR mēnesī), var izveidoties situācija, ka būs jāpiemaksā nodoklis, iesniedzot gada deklarāciju, jo gada laikā darba samaksai likums "Par iedzīvotāju ienākuma nodokli" neparedz iespēju piemērot 31.4% likmi. Ar 01.10.2018. darbiniekiem ir iespējams veikt korekcijas algas nodokļa grāmatiņā un izvēlēties visam ienākumam piemērojot 23% likmi, kas nav risinājums lielāko algu saņēmējiem. Autore piedāvā veikt grozījumus likumā "Par iedzīvotāju ienākuma nodokli", atļaujot darba devējiem gada laikā piemērot arī 31.4% likmi.

Iedzīvotāju ienākuma nodokļa slogu var samazināt, palielinot neapliekamo minimumu, par ko savos pētījumos atzīmē arī Latvijas Lauksaimniecības

universitātes pētnieki (LLU, 2013). Lai nodrošinātu vismaz nelielu nodokļu sistēmas progresivitātes pieaugumu, Baltijas valstīs tiek piemērots diferencētais neapliekamais minimums, tikai atšķiras tā piemērošanas noteikumi un apmēri. Latvijā ir viszemākais maksimāli piemērojams neapliekamais minimums, kas 2018.gadā ir 1.9 reizes mazāk nekā Lietuvā un 2.5 reizes mazāk kā Igaunijā. Tāpat Latvijā ir zemākās mēneša algas, kurām piemēro maksimālo neapliekamā minimuma apmēru vai beidz to piemērot. Latvijā maksimālo neapliekamo minimumu piemēro ienākumiem līdz 440 EUR mēnesī, savukārt, ja ienākumi pārsniedz 1000 EUR mēnesī, neapliekamo minimumu nepiemēro vispār. Lietuvā maksimālais neapliekamais minimums tiek piemērots mēneša ienākumiem, kuri nepārsniedz valstī noteiktās minimālās algas apmēru (2018.gadā – 400 EUR), bet beidz piemērot, ja mēneša ienākumi pārsniedz 1160 EUR. Igaunijā ir augstāks mēneša ienākumu sliekšnis, kuram piemēro maksimālo neapliekamo minimumu – 1200 EUR, bet beidz piemērot, kad mēneša ienākumi pārsniedz 2100 EUR. Igaunijā 2018.gadā maksimālais neapliekamais minimums ir sasniedzis minimālo mēnešalgu, Lietuvā sastāda 95%, bet Latvijā tikai 46.5% no minimālās mēnešalgas. Maksimālais neapliekamais minimums 2018.gada 3 ceturkšņos Lietuvā sastāda 41% no vidējās mēneša bruto algas, attiecīgi Igaunijā – 40%, Latvijā tikai 20%. Autore secina, ka salīdzinot Baltijas valstu neapliekamos minimumus, vislabākā situācijā ir Igaunijā strādājošais darbinieks. Par neapliekamā minimuma paaugstināšanu Latvijā pētījumā norāda I. Snucins, ierosinot to palielināt līdz minimālās algas līmenim, ja mērķis ir samazināt emigrācijas un neoficiālās nodarbinātības pievilcību (Snucins, 2012). Šis jautājums Latvijā ir aktuāls arī tagad, pēc nodokļu reformas, jo neapliekamais minimums arvien ir zemākais no Baltijas valstīm.

Nodokļa atvieglojums par katru apgādībā esošu personu ir uzskatāms par mērķtiecīgu nodokļu sloga atvieglojuma instrumentu. Latvijas priekšrocība, salīdzinot ar Igauniju un Lietuvu, ir atvieglojums par katru apgādājamo – bērnu, jo 2018.gadā ar iedzīvotāju ienākuma nodokli netiek aplikti 200 EUR mēnesī par katru apgādājamo, kad Igaunijā tie ir 154 EUR, ko var piemērot tikai no otrā bērna, bet Lietuvā to aizstāja ar ģimenes valsts pabalstu.

Neapliekamā minimuma un nodokļu atvieglojumu par apgādībā esošām personām paaugstināšana ir jāsalāgo ar minimālo mēneša darba algu, lai neveidojas situācija, ka atvieglojumu kopsomma pārsniedz darba algu, kā tas ir Latvijā. Piemēram, 2018.gadā darbiniekam saņemot minimālo mēneša darba algu, atvieglojumu par vienu apgādājamo var izmantot 91.4% apmērā.

Mūsdienās ir raksturīga migrācija no vienas valsts uz citu un kā viens no galvenajiem iemesliem ir darba pieejamība un darba samaksa, bet arī augstais nodokļu slogs var būt viens no faktoriem, kas ietekmē izvēli.

Iedzīvotāju ienākuma nodokļa praktiskās piemērošanas salīdzinošā izpēte *Comparative study on the practical application of personal income tax*

Autore veica iedzīvotāju ienākuma nodokļa aprēķinu Baltijas valstīs, lai salīdzinātu nodokļu slogu darba ņēmējiem un noteiktu pievilcīgāko valsti, kur pie vienādiem noteikumiem darbinieks saņems lielāku neto darba algu (2.tabula). Aprēķinu veikšanai autore izvēlējās darbinieku, kurš iesniedzis algas nodokļa grāmatiņu, kuram nav apgādājamo un aprēķināta bruto darba alga mēnesī: 500 EUR (Igaunijas minimālā mēnešalga – augstākā starp Baltijas valstīm); 1100 EUR (~ paredzamā vidējā darba alga Baltijas valstīs 2018.gadā) un 2200 EUR (kurai nepiemēro neapliekamo minimumu Baltijas valstīs 2018.gadā).

Izvērtējot 2.tabulas datus vispirms jāpaskaidro, ka Lietuvā atšķiras neto algas un iedzīvotāju ienākuma nodokļa aprēķins. Ja Latvijā un Igaunijā ar iedzīvotāju ienākuma nodokli apliekamo ienākumu nosaka no bruto algas atņemot darba ņēmēja valsts sociālās apdrošināšanas iemaksas un neapliekamo minimumu, tad Lietuvā tikai neapliekamo minimumu, bet valsts sociālās apdrošināšanas iemaksas atņem tikai aprēķinot neto algu.

2.tabula. No darba algas ieturamo nodokļu aprēķins Baltijas valstīs 2018.gadam

(autora veidota pēc nodokļu likumdošanas; Leinonen, 2018)

Table 2 Calculation of taxes on wages in the Baltic countries for 2018

(author's elaboration based on tax legislation; Leinonen, 2018)

Rādītāji	Latvija			Lietuva			Igaunija		
	500 EUR	1100 EUR	2200 EUR	500 EUR	1100 EUR	2200 EUR	500 EUR	1100 EUR	2200 EUR
Neapliekamais minimums, EUR	178.57	0	0	330	30	0	500	500	0
Valsts sociālās apdrošināšanas iemaksas likme, %	11	11	11	9	9	9	3.6	3.6	3.6
Valsts sociālās apdrošināšanas iemaksas summa, EUR	55	121	242	45	99	198	18	39.6	79.20
Iedzīvotāju ienākuma nodokļa likme, %	20	20	20;23	15	15	15	20	20	20
Iedzīvotāju ienākuma nodokļa summa, EUR	53.29	195.80	407.59	25.5	160.5	330	0	112.08	424.16
Neto alga, EUR	391.71	783.20	1550.41	429.5	840.5	1672	482	948.32	1696.64
Darba ņēmēja nodokļu slogs, %	21.66	28.80	29.53	14.10	23.59	24.00	3.60	13.79	22.88

Zemākais darba ņēmēja nodokļu slogs no Baltijas valstīm ir Igaunijā, tad Lietuvā un Latvijā tas ir visaugstākais. Darbinieku nodokļu slogs vienādās situācijās Igaunijā ir par 6% - 15% zemāks nekā Latvijā un par 1% - 10% zemāks nekā Lietuvā. Tas var ietekmēt ienākumu saņēmēju migrāciju starp Baltijas valstīm. Kā piemēru nodokļu eksperte L. Caune min, kad Latvijā tika ieviests solidaritātes nodoklis augstākas kvalifikācijas darbinieki un speciālisti, kuri legāli saņēma lielas algas, tika sākti nodarbināt Igaunijā (Ķirsons, 2018). Pēc autores viedokļa šāda situācija var turpināties. Savā pētījumā (Mazure & Viksne, 2014) arī atzina Igaunijas nodokļu sistēmu kā vienu no liberālākajām pasaulē. Par galveno atšķirību starp Baltijas valstu nodokļu sistēmām pētījuma autores min neapliekamā minimuma aprēķināšanu un piemērošanu, nodokļa atvieglojumus un sistēmu spēju mainīties līdz ekonomiskajiem apstākļiem, ko pierāda arī šis pētījums.

Tālāk autore apskatīs kādi faktori radīja atšķirības darbinieka neto algā. Aprēķinātais iedzīvotāju ienākuma nodoklis pie bruto algas 500 EUR Latvijā ir 2 reizes augstāks nekā Lietuvā, bet Igaunijā tas nav jāmaksā. Līdzīga situācija ir arī pie bruto algas 1100 EUR, kad tas Latvijā ir par 22% punktiem augstāks nekā Lietuvā un 75% punktiem nekā Igaunijā. Savukārt pie bruto algas, kurai nevienā no Baltijas valstīm vairs nepiemēro neapliekamo minimumu, augstākais iedzīvotāju ienākuma nodoklis ir Igaunijā, kas par 4% punktiem pārsniedz Latvijas nodokļa apmēru. Tas norāda uz to, ka Latvijas 2018.gada nodokļu reformas mērķis nav pilnīgi sasniegts, jo tas noteica samazināt nodokļa slogu tieši zemāku ienākumu guvējiem.

Tātad var secināt, ka kopējo darbinieka nodokļu slogu labvēlīgi ietekmē darba ņēmēja valsts sociālās apdrošināšanas obligātās iemaksas, kuras viszemākās ir Igaunijā (3.6%), kad Latvijā 11 %, bet Lietuvā 9%. Latvijā, salīdzinot ar tās kaimiņvalstīm, ir salīdzinoši augsta darba ņēmēja iemaksas daļa, un tāpēc, ja veic sociālo iemaksu likmju samazinājumu, tad to būtu lietderīgāk attiecināt uz darba ņēmēja daļu, lai panāktu neto darba algas pieaugumu.

Neskatoties uz to, ka nodokļu no algas aprēķins Baltijas valstīs ir līdzīgs, jāsecina, ka katrā valstī tas būtiski atšķiras.

Secinājumi **Conclusions**

Nodokļu sistēmas Baltijas valstīs ir vairāk orientētas uz darbaspēka nodokļiem. Darbaspēka nodokļu izmaksas darbiniekam bez apgādājamiem ar maziem ienākumiem 2016.gadā visaugstākās bija Latvijā - 41% no darbaspēka kopējām izmaksām, Lietuvā 36.5% un Igaunijā 32.9%, kas ir vistuvāk vidējam rādītājam ES – 32.5%.

Lietuvā un Igaunijā ir saglabātas nemainīgas proporcionālās iedzīvotāju ienākuma nodokļa likmes, bet Latvijā ar 2018 gadu tika ieviestas progresīvās likmes. Latvijā var izveidoties situācija, ka lielo algu saņēmējiem nāksies piemaksāt nodokli iesniedzot gada deklarāciju, jo gada laikā likumdošana pieļauj tikai 20% un 23% likmes piemērošanu, ko vajadzētu grozīt.

Starp Baltijas valstīs Latvijā ir viszemākais maksimāli piemērojamais neapliekamais minimums un zemākās mēneša algas, kurām piemēro maksimālo neapliekamā minimuma apmēru vai beidz to piemērot. Maksimālais neapliekamais minimums 2018.gadā Igaunijā ir vienāds ar minimālo mēneš algu, Lietuvā sastāda 95%, bet Latvijā tikai 46.5% no minimālās mēnešalgas. Autore uzskata, ka Latvijā neapliekamais minimums būtu pakāpeniski jāpaaugstina līdz sasniedz valstī noteiktās minimālās darba algas apmēru.

Latvijas priekšrocība ir atvieglojums par katru apgādājamo – bērnu. Ja paaugstina atvieglojumus, tad to kopsummai nebūtu jāpārsniedz minimālo mēneša darba algu, kā tas tagad ir Latvijā.

Zemākais darba ņēmēja nodokļu slogs no Baltijas valstīm ir Igaunijā, tad Lietuvā un Latvijā tas ir visaugstākais. Darbinieku nodokļu slogs vienādās situācijās Igaunijā ir par 6% - 15% zemāks nekā Latvijā un par 1% - 10% zemāks nekā Lietuvā. Tas var ietekmēt ienākumu saņēmēju migrāciju starp Baltijas valstīm.

Aprēķinātais iedzīvotāju ienākuma nodoklis pie bruto algas, kurai piemēro neapliekamo minimumu augstāks ir Latvijā, bet bruto algas, kurai nevienā no Baltijas valstīm nepiemēro neapliekamo minimumu, augstākais iedzīvotāju ienākuma nodoklis ir Igaunijā, kas par 4% punktiem pārsniedz Latvijas nodokļa apmēru. Igaunijas darbinieku nodokļu slogu, salīdzinot ar Latviju un Lietuvu, samazina nelielā valsts sociālās apdrošināšanas iemaksu likme darba ņēmējiem, kas Igaunijā ir tikai 3,6 %, kad Latvijā 11 %, bet Lietuvā 9%. Tas norāda uz to, ka Latvijas 2018.gada nodokļu reformas mērķis nav pilnīgi sasniegts, jo tas noteica samazināt nodokļa slogu tieši zemāku ienākumu guvējiem.

Summary

The tax systems in the Baltic States are more focused on labour taxes. After the comparison of labour tax payments in the Baltic States for workers with low income without dependents (50% of the average gross wage), we can conclude that in 2016 the highest payments were in Latvia – 41% of the total labour tax payments, in Lithuania – 36.5%, and in Estonia – 32.9%, which were the closest to the EU average – 32.5%. To be able to evaluate how favourable the personal income tax systems applicable to employees are in the Baltic States, the author compared the factors that affect taxation and the tax burden in Latvia, Lithuania, and Estonia, which have experienced tax reforms in the recent years.

The aim of the research is to perform a comparative study of the requirements and issues of personal income tax application to wages in Latvia, Lithuania, and Estonia. As a result of the study, the author has concluded that in the period under study, the proportional personal income tax rates in Lithuania and Estonia remained constant. In Latvia, a proportional personal income tax was set until 2018, but in the framework of the reform, progressive personal income tax rates 20%, 23% and 31.4% were introduced. In Latvia, the introduction of a progressive rate can create a situation that receivers of high wages may have to pay an additional tax by submitting an annual tax return.

The personal income tax burden can be decreased by increasing the non-taxable minimum, which is differential in all the Baltic States. Notably, Latvia has the lowest maximum non-taxable minimum, which in 2018 was 1.9 times lower than in Lithuania and 2.5 times lower than in Estonia. Latvia, in comparison with Lithuania and Estonia, also has lower monthly wages to which the maximum non-taxable minimum is applied or ceases to be applied. If we compare the maximum non-taxable minimum with the minimum monthly wage set in a state, then in 2018 in Estonia, it reached the minimum monthly wage, in Lithuania, it is 95% of the minimum monthly wage, but in Latvia, it is only 46.5% of the minimum monthly wage. The advantage in Latvia is tax relief for each dependent – a child.

Having performed the evaluation of the personal income tax burden for employees in the Baltic States, we have to admit that the lowest tax burden was in Estonia, then in Lithuania, while in Latvia it was the highest. The employee tax burden in the same situations in Estonia was 6% - 15% lower than in Latvia and 1% - 10% lower than in Lithuania, which may affect migration of the recipients of income among the Baltic States.

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RATE OF COSTS ON INVESTMENT CAPITAL IN EMERGING MARKETS

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Abstract. *To date, there is no adequate methodology for calculating the discount rate that would satisfy most financial analysts. The most common approach to determining the discount rate is to use the weighted average cost of capital (WACC) algorithm. The calculation of capital costs (discount rates) in emerging market countries (EM) is characterized by a number of problems related to the information inefficiency of the capital market, instability of demand for products, inflation, macroeconomic and legal uncertainty and a lack of proper payment discipline. Even more complex are the corresponding calculations during the financial crisis, accompanied by hyperinflation, a fall or significant fluctuations in the rate of the national monetary unit, trade wars, and the collapse of the banking system.*

Especially problematic for emerging markets is the calculation of the cost of equity (investment) capital. In developed markets, the classical CAPM model is used for these purposes. Taking into account the lack of an effective capital market in EM-related countries, it is quite difficult to determine the standard parameters of the model (risk-free rate of return, market risk premium, beta factor).

Significant problems also lie in the sources and shadow schemes for paying high premiums for the risks of investing capital in EM. The aim of the paper is to substantiate recommendations on the procedure for calculating the rate of costs for own (investment) capital, taking into account the specifics of corporate activities in countries related to EM.

Keywords: *beta factor, CAPM, discount rate, market risk premium, risk-free rate of return, WACC.*

Introduction

The cost of equity corresponds to the expected rate of return on investment by investors. It is an integrated expression of a set of factors embodying market expectations regarding the risks of investing in a particular asset, taking into account the profitability of the market as a whole, and depends on interest rates in world and local financial markets, the risks of financing a particular

enterprise. With an efficient capital market, this fee can be calculated directly and corresponds to investors' incomes, which are formed from the dividends received and profits in the form of growth in the market rate of corporate rights, in particular, shares. The problem is that in the countries with emerging markets (EM), securities of only a small number of enterprises are listed on stock exchanges. In addition, the capital market in such countries is mostly inefficient. A significant number of companies use shadow remuneration schemes for owners. Clarification of the cost of capital for most enterprises is a rather problematic task.

A similar problem also arises in the countries with developed markets when calculating the cost of equity for non-public companies. In theory and practice, there are two approaches to calculating the cost of equity for enterprises whose securities do not have circulation in developed capital markets: the use of CAPM modifications and an expert method based on a subjective calculation of risk charges using special allowances. However, so far no adequate solution has been found to this topical problem in science and practice. The purpose of the proposed research is to clarify the peculiarities of calculating the cost of own (investment) capital, taking into account the peculiarities of corporate activities in the countries related to EM.

Research results

The countries related to EM have a significant amount of shadow economy. It can be assumed that the largest share of the income of the shadow economy is formed precisely due to the concealment of fees for its capital. The cost of equity in the overwhelming majority is implicit (hidden or shadow). Information about them in the official statements is incomplete, or completely absent. They can be determined by resorting to indirect methods (models). However, models, ideal from a theoretical point of view, in their pure form have no practical application to EM, since they act only with rather restrictive assumptions. According to the well-known CAPM model, the investor's expected rate of return on investments in an enterprise depends on the risk-free rate of return, the average rate of return on the capital market and the systematic risk of investing in a particular asset.

The problem is that all the parameters that are included in the CAPM can only be calculated under the condition of a more or less efficient capital market. To determine them, it is necessary to process a significant array of information, as well as to apply rather contradictory methods of calculation. In the case of calculating model parameters for countries with emerging markets, additional difficulties arise due to the lack of a reliable database, high volatility of the local stock market or its illiquidity, legal and macroeconomic uncertainty, and a

number of other factors. Obviously, under the influence of these factors, an average enterprise operating in an EM, for example in Ukraine, carries more risks than a similar enterprise operating in developed markets. According to the CAPM, these additional risks are subject to diversification, which means that they are non-systematic and do not affect the evaluation of investments and assets. From a theoretical point of view, the market does not pay an additional risk premium for unsystematic risks. If so, then the increment in the premium for additional risks is not advisable to take into account, since the corresponding risks are duly taken into account when determining the coefficient of beta and the market risk premium (MRP). However, the CAPM, filigree from the theoretical point of view, is based on assumptions that are far from reality. This is the key drawback of the model and the need to modify it, in particular, for the purposes of determining the discount rate on EM.

In the world practice, modifications of the CAPM are widespread: the Additive Model, the Beta Model, the Lambda Model (Damodaran, 2012), the local CAPM (Pereiro, 2006), the Hybrid CAPM (Godfrey & Espinosa, 1996), the Lessard-Model (1996) and the Godfrey-Espinoza model (Godfrey & Espinosa, 1996). These models are aimed at solving a pragmatic task - the calculation of the expected return on investment by investors on invested capital, provided that the corresponding asset is on the EM. To do this, it is necessary to cover all risks as fully as possible, and also to prevent their double counting. In addition, the information used in the settlement process must be reliable and trustworthy on the part of investors. The key critical point of these modifications lies in the absence of such information. To determine the individual parameters of the models, the data generated by the local stock market is needed. For example, to use the local or hybrid CAPM, local beta and the local risk premium should be calculated; this is done on the basis of processing information from the stock market.

All the other models involve the use of information from the local stock market to calculate the beta factor. Due to the lack of reliable information from local financial markets, it is advisable for EM to use modifications of the CAPM, which provide for minimal use of data from these local markets.

The factors that make it difficult to calculate the cost of equity with the use of the traditional CAPM include the following:

- informational inefficiency of local capital markets;
- high investment risks and low sovereign ratings of the respective countries;
- lack of reliable market instruments, on the basis of which one can objectively calculate the local market risk premium and the local risk-free rate;

- active use of hidden schemes of payment for investment capital;
- insufficient level of protection of property rights of investors;
- high level of expected risk premium, which may exceed the actual return on equity;
- discrepancy of the incomes, which are given in the official financial statements, and the expected incomes of the investor.

The starting point for developing an algorithm for calculating the cost of equity is to solve a dual problem:

- the need to take into account all possible risks associated with the investment process;
- avoidance of double counting of the same risks in different components of the risk premium.

One of the ways to solve this problem is to use modifications of the CAPM that provide for the combined use of the parameters calculated on the basis of global data, as well as specific premiums for the risk of investing in EM (country risk premium, CRP) and the specific risks premium (SRP) peculiar to a specific asset. Therefore, the approach assumes that a modified risk premium includes a global market risk premium (MRPg), a country risk premium, and an asset-specific risk premium. In addition to the well-known recommendations on the need to integrate the CRP into the CAPM model, justified by A. Damodaran, arguments in support of the use of the CRP and SRP for the purposes of calculating capital costs were also adduced by Ernst & Gleißner (2012), Ballwieser (2018), Hitchner (2017). The legitimacy of the use of these parameters can be easily explained if we interpret at least some of the non-diversified risks (peculiar to the enterprise) as being relevant for evaluation. In order for these risks to be classified as irrelevant, sufficiently restrictive assumptions must be made, which in reality do not hold. Therefore, unsystematic risks arising from investments in EM can be interpreted as those that significantly affect the assessment (Ernst & Gleißner, 2012).

Let us justify the methodology for constructing an algorithm for calculating the cost of equity for the countries that belong to EM and are in crisis. We denote the corresponding modification of the CAPM as a hybrid crisis model. Hybridity in this case means a combination of different types of risks in one model: global, local and specific risks characteristic of a particular asset. Taking into consideration the impossibility of an objective calculation of the risk-free rate of return and the lack of reliable information from the local stock market, adequate calculation models for Ukraine will be those that take into account the global risk-free rate, the global risk premium and the minimum use of data from the domestic stock market as an information base, as well as expert evaluation. To this end, using the survey method and systematization, a survey was

conducted among the heads of financial departments of 40 Ukrainian enterprises, half of which belong to the group of large, and half to the group of medium and small enterprises. On the condition of anonymity, business representatives answered the question about investors' expected incomes of enterprises (the rate of return on investment capital), the main sources of an additional risk premium, rates for dividend payments, and possible schemes for paying income to owners. The survey results are shown in Table 1.

Table 1 Sources of an additional premium for the risk of investing in the company's equity capital: the example of Ukraine (developed by authors)

Parameters	Large companies		Medium and small companies	
	Quantity	%	Quantity	%
Total questioned companies	20	100	20	100
Companies that have been paying official dividends during last five years	3	15	1	5
Companies that have been paying the income to the owners during the last five years	20	100	20	100
Average expected return on investment (expected rate of capital expenditures in USD):				
- less than 10%	2	10	1	5
- from 10% to 20%	13	65	11	55
- over 20%	5	25	8	40
Sources of an additional risk premium (ERP)				
- high pricing for products (services)	5	25	1	5
- savings on staff costs (low wages/salaries and unofficial wages/salaries)	18	90	17	85
- counterfeit goods and use of low-quality materials, products and services	6	30	15	75
- savings as a result of using various tax evasion schemes	15	75	19	95
- other sources	8	40	5	25
Underhanded schemes for the income paid to owners (investors):				
- transfer of profits to tax havens (offshore zones)	9	45	3	15
- fake, missing trader costs (missing trader)	8	40	15	75
- manipulating the tax allowances	6	30	7	35
- paying the excessive royalties, interest, commission charges, agency fees, etc.	4	20	2	10

The proposed model uses the following parameters: global risk-free rate of return (r_{rf}), global market risk premium (MRP_g), country risk premium (CRP), beta factor calculated on the basis of the analogue approach

β_{ga} , cumulative premium for the specific risks of investing in a specific asset (SRP):

$$Re = rf_g + \beta_{ga} \cdot (\text{MRP}_g + \text{CRP}) + \text{SRP} \quad (1)$$

The basic component of calculating the rate of return expected by the investor is the risk-free rate. Low sovereign ratings, a high discount rate, the virtual absence of the stock market do not allow an objective assessment of the risk-free interest rate, which is the basis for further calculations of capital costs. In such a situation, for the purpose of determining the cost of equity, it is advisable to use the global risk-free rate that operates in a developed market. The specified rate is in the range of 2.5 - 3.5% in US dollars. It is advisable to reflect in the total market risk premium, which corresponds to the sum of the MRP_g and CRP, the risks associated with investing capital in a specific local market. As a global risk premium, a market premium is accepted for the countries with a developed stock market, which has a long history of operation. This is a the MRP for the USA, Germany or other countries with the highest credit ratings. According to A. Damodaran, in the middle of 2018 this premium was about 5.4%, respectively, the CRP for Ukraine is about 10.4% (Damodaran, 2018). To fully take into account all the risks associated with investing in funds, it is also necessary to take into account the risks inherent in a particular enterprise. The vast majority of these risks are quantified in the beta parameter. To calculate the beta factor for enterprises operating on EM, one should use adaptation algorithms (for example, Miller-Modigliani), the basic values of which should be indicators of global sectoral beta or beta, which is calculated on the basis of compared enterprises whose corporate rights have a turn in a developed stock market.

The above model parameters do not take into account a number of specific risks peculiar to a particular enterprise: associated with low publicity of the company and mobility of corporate rights (marketability), quality of corporate governance, company size, uncertainty in planning financial indicators. To take into account such risks in the rate of investment capital costs, we consider the use of a specific premium for individual risks justified. The amount of such premium should be determined by an expert.

Taking into consideration the vagueness of key provisions of corporate law, including the mechanism for exercising the pre-emptive right, corruption of the judicial system, poor quality of corporate governance, minority owners in countries such as Ukraine have much more risks than majority ones. That is why, when determining the cost of investment capital, a differentiated approach should be applied: for minority investors, the premium for risks associated with

corporate governance will be higher, and for owners of the controlling stake the corresponding premium will be minimal. Table 2 shows the proposed scale of risk premium dependence on the level of publicity and the quality of corporate governance. It is assumed that the level of corporate governance of public companies can only be high, and the mobility of an asset depends on the publicity of the company.

Table 2 Extra premium for risks associated with the publicity of the company and the quality of corporate management (developed by authors)

Parameters	Value of extra premium for risk, % (USD)	
	For monitory investors	For majority shareholders
The company is public (securities are traded in international capital markets), the quality of corporate management is high	0	0
The company is public (securities are traded in local capital markets), the quality of corporate management is high	1	0
The company is non-public, the quality of corporate management is sufficient	2	1
The company is non-public, the quality of corporate management is satisfactory	3	1
The company is non-public, the quality of corporate management is unsatisfactory	4	1

Many studies have proven the feasibility of taking into account in the process of calculating the cost of equity capital premiums for risks associated with the size of the company (small cap premium). The most famous of the studies is that by Fama & French (1992). According to PWC studies, the small cap premium range should be 0-4% (Cheridito & Schneller, 2008). Size premiums for the Russian market are in the range of 3-4% (Fomkina, 2016). The results of surveys of financial analysts and consulting companies in Ukraine show that in the process of investment calculations about 70% of them apply the premium for the small size of the enterprise as a separate parameter of the algorithm for calculating the cost of equity. In addition, the results of a survey of various groups of enterprises in Ukraine showed that the expected rate of expenditures on the equity capital of representatives of small and medium-sized businesses was on average 2-5% higher than that of representatives of large enterprises. Given the increased risks, expectations for super-profits among small and medium-sized businesses are higher than those among large enterprise owners. According to the survey results (Table 1), the expected rate of expenditures on equity in 40 percent of small and medium-sized businesses

exceeds 20% (in US dollars). It can be assumed that the premium for the size of the enterprise in Ukraine is in the range of 2-5%.

In addition to the above components of the cumulative premium for specific risks, different studies also include a premium for the risk of bankruptcy, for the risk of a company's dependence on key stakeholders, for sectoral risk, for financial risks, for the risk of erroneous forecasts, and the like. In our opinion, some of these risks are expressed in the beta factor (sector and financial risks). Other risks, since they significantly affect the cash-flow targets, should be combined into a risk premium for planning uncertainties. This premium should take into account the risks of erroneous planned calculations, due to the subjective factors that are generated by the enterprise itself. We are talking about a high level of dependence on individual stakeholders, as well as the desire of domestic agents to provide "budgetary reserve" (budgetary slack). According to our estimates, the range of this premium for Ukraine is 1-3 percent. We emphasize that the uncertainty caused by global and local macroeconomic factors is characterized by other parameters of the model.

Estimated with use of the proposed modification, the average cost of equity invested in the Ukrainian enterprise is in the range of 15-20% (USD). This value corresponds to the expectations regarding the rate of return on invested capital, obtained as a result of the survey of business representatives in Ukraine. According to KPMG research, the average rate of expenditures on the equity of enterprises (Germany, Austria, Switzerland) is 8.3% (Castedello & Schöniger, 2018). According to the table, 1.90% of owners of large and 95% of owners of small and medium-sized enterprises expect a risk premium, which significantly exceeds the incomes that occur in developed markets. The rate of expenditure on the equity capital of an average Ukrainian enterprise is 2-2.5 times higher than the corresponding figure for enterprises operating in developed markets. Let us find out which sources and schemes for paying an additional risk premium are common in countries such as Ukraine.

An analysis of the official reporting of enterprises doing business in EM shows that the performance indicators of such enterprises do not exceed the figures reported for the enterprises operating in developed markets. A significant number of enterprises generally show losses or minimum incomes. The paradox is that all the enterprises that participated in the study paid the income to the owners, that is, they incurred capital costs. However, official dividends were paid only by 15% of large and 5% percent of small and medium enterprises. The answer to the question about the possible sources of generating an additional risk premium depends on the scale and type of activity of enterprises, as well as on the degree of business illegalization.

The main sources of obtaining super-profits (high risk premium) for owners (investors) are:

- establishing high prices for products (services);
- savings on staff costs (low wages and unofficial wages);
- pirated goods and use of low-quality materials, products, services;
- savings resulting from the use of various tax evasion schemes;

Other sources, in particular, low fees for the use of resources, low rental costs and so on.

The results of the research study showed that the most significant sources of providing an additional premium for the risk of investing funds in EM were low staff costs and savings resulting from the use of tax evasion schemes. Savings on personnel costs was the main source of additional value generation for owners of 90% of large and 85% of medium and small Ukrainian enterprises that participated in the study. Savings from tax evasion were a source of compensation for additional risks for 75% of large and 95% of small and medium-sized enterprises.

Conclusion

For the calculation of the cost of capital expenditures in the countries with an incompetent stock market, it is justified to use the models allowing the calculation of individual parameters based on data that are substitutes for information generated by the stock market. The proposed hybrid crisis model for calculating the cost of equity includes the following parameters: global risk-free rate of return, global market risk premium, country risk premium, beta factor calculated on the basis of the analogue approach, premium for the specific risks of investing in a particular asset. The model assumes the dependence of the level of CRP influence on the cost of equity on the beta factor.

The rate of expenses on equity should take into account the expert premiums for specific risks peculiar to a particular asset. The premium should include additional risks for shareholders and stakeholders due to the level of publicity of the company and asset mobility, quality of corporate management, company size and the adequacy of financial performance planning. Through the total control of companies by majority owners, minority owners in countries such as Ukraine experience much higher risks associated with the protection of property rights. To take into account these risks, a differentiated approach should be applied when determining the cost of investment capital: for minority investors, the premium for risks associated with corporate governance will be higher, and for owners of a controlling stake the corresponding premium will be minimal. The level of premium depends on the publicity of the company and the

quality of corporate governance. The cumulative premium for specific risks should also include a premium for the risk of a small enterprise and for uncertainty in planning due to internal factors.

Given the high risks of doing business in EM, for example in Ukraine, investors (owners) expect a super-high risk premium. To obtain super-profits, enterprises in such countries resort to minimizing personnel costs, evading taxation, reducing the quality of finished goods (services) or using counterfeit goods. The main part of the payment for investment capital in such countries is poured into the shadow sector.

Thus, we have a vicious circle: high risks force enterprises to use shadow schemes and sources of paying an additional risk premium to investors; on the other hand, the shadow economy is a risk factor that necessitates the payment of an excessive premium. The solution to the problem is seen in reducing the risk premium, which is achieved primarily by reducing corruption risks.

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KLIENTA PAŠRISKA LOMA APDROŠINĀŠANAS PROCESĀ

Role of Deductibles in the Insurance Process

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Abstract. *The application, type and amount of a deductible is one of the opportunities of changing the covering in insurance. The research on the deductible amount is currently especially important because there is severe competition in the Latvian insurance market among the insurers, and due to the market conjuncture, it is no longer possible to compete only by lowering the price. The theoretical studies have been summarized in the research on the essence and application of the deductible, which were implemented by foreign and Latvian scientists.*

The aim of the research is to characterise the essence of a deductible, to specify the applied definitions by providing the types of the deductible amount and by characterizing their effects on the insurance process. The following methods were used in the research: monographic, problem analysis, scientific induction and deduction methods, and adoption of a decision under conditions of uncertainty.

Keywords: *deductible, excess, franchise, insurance.*

Ievads

Introduction

Apdrošināšanas nozare Latvijā atrodas nemitīgā attīstībā. Konkurence tirgū ir ļoti spēcīga, līdz ar to kompānijas pielieto visdažādākos paņēmienus, lai noturētu esošos un piesaistīti jaunus klientus. Veicot tirgus situācijas analīzi, var secināt, ka pirms 15 gadiem apdrošināšanas sabiedrības attīstījās iesaistot jaunus klientus apdrošināšanas procesā, pārdodot standarta produktus, pašlaik, kad tirgus Latvijā ir tik piesātināts, kompāniju vienīga iespēja attīstīties ir pārvilināt klientus no citām kompānijām. Visvieglāk to izdarīt ar cenas palīdzību, šo metodi kompānijas arī sekmīgi pielietoja, pakāpeniski pazeminot tirgus vidējas cenas līdz tehniskai cenai. Vairāk sekmīgi konkurēt, izmantojot tikai cenu konkurenci, nav iespējams, līdz ar to Latvijas apdrošinātāji sāk pielietot ārpus cenas konkurences metodes. Viena no iespējamām ārpus cenas konkurences metodēm ir - piedāvāt tirgū produktu, kas ir savādāks nekā konkurentiem, un manipulēt ar cenu,

samazinot vai paplašinot apdrošināšanas segumu. Klienta pašriska pielietojums, apjoms un veids ir viena no iespējam, kā var mainīt segumu apdrošināšanā.

Pētījuma mērķis ir raksturot klienta pašriska būtību, precizēt pielietotās definīcijas, nosakot pašriska veidus un raksturojot to ietekmi uz apdrošināšanas procesu.

Mērķa sasniegšanai izvirzīti šādi uzdevumi:

1. Izpētīt pašriska pielietojuma apdrošināšanas procesā teorētiskos pamatus ārzemju un Latvijas zinātnieku darbos;
2. Savākt un apkopot informāciju par jēdziena klienta pašriska lietošanu definējumu Latvijā;
3. Savākt un apkopot informāciju, un veikt analīzi par pašriska veidiem;
4. Noteikt pašriska lomu apdrošināšanas procesā un izstrādāt ieteikumus, ko apdrošinātāji var pielietot praksē konkurences apstākļos.

Pētījumu metodes. Augstāk formulēto uzdevumu risināšanai izmantotas metodes: monogrāfiskā, problēmu analīze, zinātniskās indukcijas un dedukcijas metodes, lēmuma pieņemšana nenoteiktības apstākļos.

Zinātniskās indukcijas metode pielietota, lai no atsevišķiem faktiem veidotu vispārīgus atzinumus vai sakarības. Savukārt deduktīvā jeb zinātniskās dedukcijas metode izmantota, lai izdarītu secinājumus, sistematizētu un teorētiski pamatotu gan citu autoru, gan savus personiskos pētījumus un pieredzi.

Pašriska būtība un pielietojamās definīcijas *Essence of deductibles and the terminology used*

Apdrošināšanas līguma ietvaros klients apdrošinātājam var nodot risku (rūpes par iespējamiem zaudējumiem) pilnā apjomā (100%) vai arī daļēji. To riska daļu, ko klients patur, nenododot apdrošinātājam, sauc par klienta pašrisku.

Veicot pētījumu, autori nonāca pie secinājumiem, ka diemžēl pirms tam Latvijā nebija neviena publicēta pētījumā šajā jomā. Literatūrā un normatīvajos aktos nav vienotas definīcijas un pat vienota šī jēdziena apzīmējuma. Ir autori, kas lieto jēdzienu pašriska (deductible), citi lieto vārdu franšīze (franchise) vēl citi ekscess (Журавлев, 1994).

Vārds franšīze ir cēlies no franču valodas, un tas nozīmē „naudas atvieglojuma piešķiršana” (Sfetcu, 2014).

Krievu zinātnieka, ekonomista un jurista Juldaševa grāmatās tiek lietots jēdziens „franšīza” ar šādu definējumu – Franšīza ir daļa no zaudējumiem apdrošinātājam personai, ko apdrošināšanas līguma nosacījumi neparedz segt (Юлдашев, 1999).

Kabancena norādīja, ka franšīza ir apdrošināšanas līguma nosacījums, kurš paredz atbrīvot apdrošinātāju no pienākuma kompensēt zaudējumus, kuri nav lielāki par līgumā atrunāto apjomu (Кабанцева, 2008).

Kā viens no pirmajiem zinātniekiem, kas sāka analizēt pašrisku lomu apdrošināšanas procesā, bija Kenneth J. Arrow, kurš savā darbā "Optimal Insurance and Generalized Deductibles", mēģināja noteikt optimālo pašrisku apjomu atkarībā no riska veida un apjoma (Arrow, 1973)

Deivids Blends definēja, ka pašrisks ir zaudējumu apjoms, ko izskaita no atlīdzības, un to sedz pats apdrošinājuma ņēmējs. Viņš viens no pirmajiem arī raksturoja, ka pašriskam var būt arī vairāki veidi (Blends, 1985).

Viens no lielākajiem Latvijas apdrošināšanas brokeriem lieto šādu definīciju - Apdrošinātā pašs risks (ekscsess) – naudas izteiksmē vai procentos izteikta daļa no polisē norādītās apdrošinājuma summas, par kuru katrā apdrošināšanas gadījumā aprēķinātā apdrošināšanas atlīdzība tiek samazināta (EURORISK, 2018).

Analizējot normatīvos un tiesiskos regulējumus, var secināt, ka pašreizējos Latvijas Republikas normatīvos aktos nav iedots pašrisku definējums. Tikai Apdrošināšanas un pārāpdrošināšanas likuma (2015) 179.panta 5. daļā ir minēts, ka apdrošinātāja pienākums pirms līguma noslēgšanas ir izskaidrot *klientam pašrisku* un virsāpdrošināšanas vai Apdrošināšanas un pārāpdrošināšanas starpnieku darbības likumā (2005) 5.panta 2. daļā ir teikts, ja apdrošināšanas starpnieka piedāvātajā apdrošināšanas līgumā ir paredzēts, ka, iestājoties apdrošināšanas gadījumam, daļu no zaudējuma apmēra sedz apdrošinātais (pašrisks) vai apdrošinājuma summa noteikta apmērā, kas rada zemāpdrošināšanu vai virsāpdrošināšanu, zemāpdrošināšanas būtību, ja tas var ietekmēt klienta intereses un Apdrošināšanas un pārāpdrošināšanas apdrošināšanas starpnieka pienākums ir klientam izskaidrot pašrisku, virsāpdrošināšanas vai zemāpdrošināšanas ietekmi uz klienta interesēm.

Citur ne pašrisku definējums, ne būtība, ne veidi nav raksturoti vispār, un tas ir liels trūkums apdrošināto personu interešu aizsardzības jomā. Ja valstī nav regulējuma, apdrošināšanas sabiedrības var brīvi interpretēt šo jēdzienu un var rasties nesaprašanas un domstarpības starp apdrošināšanas līgumā ietvertajām pusēm. Šīs problēmas vienīgais risinājums ir godīga rīcība no apdrošinātāju puses un klientu izglītošana.

Veicot pētījumu, tika analizēti apdrošinātāju, kas sniedz apdrošināšanas pakalpojumus Latvijas teritorijā, izmantotās klienta pašrisku definīcijas. Skatīt 1.tabulu.

Kā redzams, apdrošinātāji pašrisku jēdzienu interpretē pēc būtības vienādi, tikai ir nelielas atšķirības definējumos. Visi apdrošinātāji, kā pašrisku veidu, izmanto ekscesu. Kāpēc tā notiek, var izskaidrot dažādi, pirmkārt, ekscess ir izdevīgāks apdrošinātājiem, jo ekscesa gadījumā vieglāk kalkulēt prēmijas. Otrkārt, tā vēsturiski izveidojies, ka izmantot šo pašrisku veidu bija izdevīgāk, jo sākotnēji pielietot franšīzi jeb pašrisku ar nosacījumu bija grūtāk, tāpēc ka bija nepieciešams papildus tērēt resursus klientu izglītošanai (skaidrot specifiku

cilvēkiem, kas ir pieraduši visu apdrošināt pie monopolista, bez pašriska sākotnēji bija problemātiski, un neviens no apdrošinātājiem to darīt nevēlējas). Treškārt, mūsu jau pieminēta problēma, ka Latvijas likumdošanā nav ne pašriska, ne pašriska veidu definīcijas.

Līdz ar to ir ļoti svarīgi apkopot teoriju un izveidot pamatus tiesiskās bāzes izveidei.

*1.tabula. Klienta pašriska definējums dažādās apdrošināšanas sabiedrībās Latvijā
(autoru veidota)*

*Table1 Definition of a deductible which is used by insurance companies in Latvia
(authors' created)*

Nosaukums	Definīcija
ERGO	naudas izteiksmē vai procentos izteikts zaudējuma apmērs, kādu katrā apdrošināšanas gadījumā uzņemas apdrošinājuma ņēmējs. Procentos izteikts pašrisks tiek rēķināts no apdrošināšanas atlīdzības.
BTA	apdrošināšanas līgumā norādītā zaudējumu daļa, kuru saskaņā ar apdrošināšanas līgumu neatlīdzina BTA. Pašrisks var tikt noteikts noteiktā naudas summā vai procentos no apdrošināšanas gadījuma rezultātā nodarīto zaudējumu summas.
IF	iestājoties apdrošināšanas gadījumam, apdrošinājuma ņēmēja, apdrošinātā un transportlīdzekļa tiesīgā lietotāja pienākums apdrošināšanas sabiedrības norādītajā veidā veikt attiecīgi piemērojamā apdrošināšanas polisē norādītā pašriska apmaksu remonta uzņēmumā vai apmaksājot apdrošināšanas sabiedrības izrakstīto rēķinu;
COMPENSA	apdrošināšanas polisē norādītā, naudas izteiksmē vai procentos izteiktā zaudējumu daļa no izmaksājamās apdrošināšanas atlīdzības, ko apmaksā apdrošinājuma ņēmējs, saņemot apdrošināšanas atlīdzību par katru apdrošināšanas gadījumu, ja nav paredzēta cita kārtība.
BALTA	naudas summā vai procentos no apdrošināšanas atlīdzības apmēra izteikta daļa, kas apdrošināšanas līgumā noteiktajos gadījumos tiek atskaitīta no apdrošināšanas atlīdzības un mēs (BALTA) to neatlīdzinām.
SWEDBANK	summa, kas Jums pašam (klientam) ir jāsedz katrā apdrošināšanas gadījumā. Pašriska apmērs ir norādīts polisē. Pašrisku var noteikt kā fiksētu naudas summu vai kā procentus no zaudējuma apmēra.
GJENSIDIGE	apdrošināšanas līgumā norādītā, naudas izteiksmē vai procentos izteikta daļa no apdrošinājuma summas vai zaudējuma, kuru, iestājoties apdrošināšanas gadījumam, atskaita no apdrošināšanas atlīdzības par katru apdrošināšanas gadījumu, vai kuru apmaksā apdrošinātais.
BAN	naudas izteiksmē vai procentos izteikta zaudējumu daļa, kuru līgumā noteiktajos gadījumos apdrošinātājs neatlīdzina.
SEESAM	apdrošinājuma ņēmēja un/vai apdrošinātā līdzdalība katrā apdrošināšanas gadījumā, kas tiek atrēķināta no izmaksājamās apdrošināšanas atlīdzības.

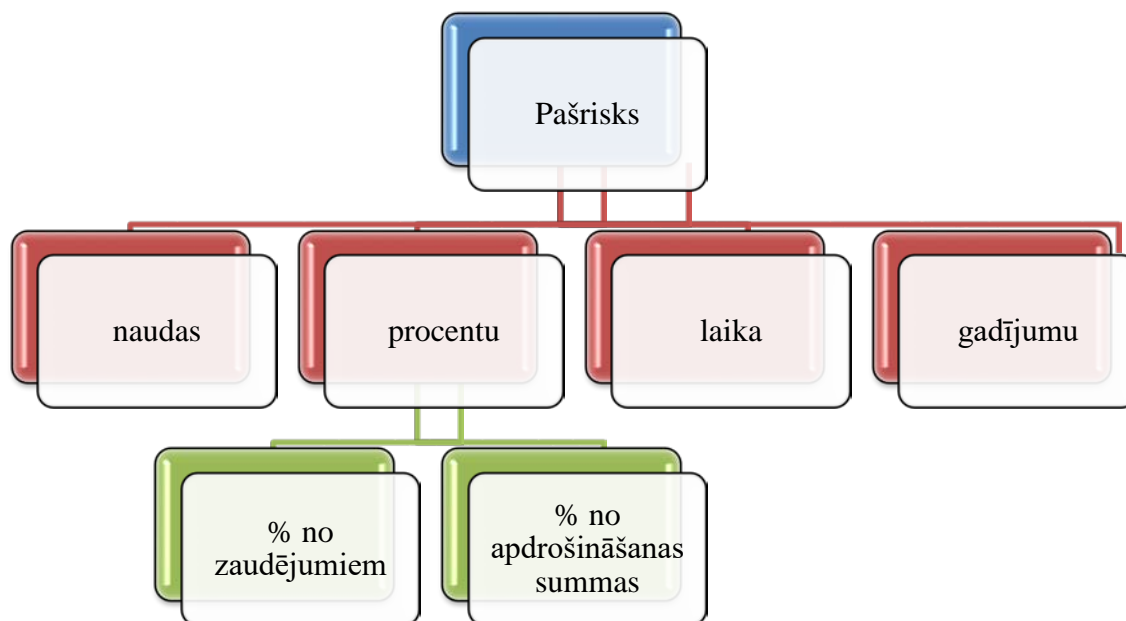
Klienta pašriska veidi un lomā apdrošināšanas procesā *Types of deductibles and their role in the insurance process*

Apkopojot pieejamo informāciju, var secināt, ka zinātnieku vidū nav vienprātības klienta pašriska klasifikācijā.

Bet nav apstrīdams jautājums, ka pašrisku var klasificēt pēc atlīdzības noteikšanas metodes un pēc noteikšanas principa.

Pēc noteikšanas principa pašrisku var klasificēt par pamatu ņemot to, ka pašriska ir izteikts (kā noteikta tā daļa, kuru apdrošinātājs nekompensēs).

Izpētot Blenda (1985), Smita (*Smith*) (1967) Čižeka, Hārdla un Werona (*Cizek, Härdle, & Weron*) (2011) darbus un apkopojot ārzemju un vietējo apdrošinātāju praksi, var secināt, ka pašrisku klasifikāciju pēc noteikšanas principa visskaidrāk atspoguļo 1.attēls



1.attēls. *Pašriska klasifikācija pēc noteikšanas principa* (autoru veidots)
Figure 1 *Classification of deductibles by determination principle* (authors' construction)

Praksē plašāk tiek pielietots pašriska, kas izteikts kā konkrēta naudas summa, tā, piemēram, Latvijā vidējais minimālais pašriska īpašuma apdrošināšanā ir 100 EUR (tas svārstās no 70 līdz 140 EUR par gadījumu). Transporta apdrošināšanā, it īpaši bojājuma riskam, dominē procentuālais pašriska, kas var būt izteikts gan kā procents no auto vērtības, gan kā procents no zaudējumiem. Laika pašrisku nosaka pārsvarā uzņēmējdarbības pārtraukšanas veidā, bet gadījuma pašrisku civiltiesiskās atbildības apdrošināšanā.

Pēc atlīdzības noteikšanas metodes pašrisku klasificē:

Ekscess (jeb beznosacījuma pašrīks) – daļa no zaudējumiem, ko apdrošinātājs nekompensē, jeb tā daļa, kas tiek atskaitīta no apdrošināšanas atlīdzības.

Franšīze (jeb pašrīks ar nosacījumu) – zaudējumu daļa, kuras apmērā apdrošināšanas atlīdzība netiek izmaksāta, bet, ja zaudējumu summa pārsniedz franšīzes apjomu, tad apdrošinātājs izmaksā aprēķināto apdrošināšanas atlīdzību pilnā apjomā, ievērojot pamatprincipu (Тулинов & Горин, 2000).

Attiecīgi ekscesa gadījumā klients vienmēr saņems tikai starpību, un atlīdzība vienmēr būs mazākā nekā nodarītie zaudējumi, bet franšīzes gadījumā klients vai nu saņems zaudējumu kompensāciju pilnā apjomā, vai nu nesaņems kompensāciju vispār. No klienta viedokļa, franšīza ir izdevīgākais pašriska veids, jo lielo zaudējumu gadījumā nav jāmeklē papildus līdzekļi, lai kompensētu starpību, ko paredz ekscess.

Kā jau minēts, Latvijā praksē vairāk tiek pielietots tāds pašriska veids kā ekscess.

Analizējot pašriska būtību un lomu apdrošināšanas procesā, autori noteica 3 mērķus, kāpēc pašrīks tiek izmantots apdrošināšanas procesā:

- *motivēt apdrošinājuma ņēmēju pieņemt līdzdalību riska faktoru mazināšanā vai seku likvidēšanā, rūpējoties par objekta drošību;*

Ja klients zinās, ka visi zaudējumi riska iestāšanās gadījumā tiks kompensēti no apdrošinātāja puses, interese sargāt objektu mazināsies un palielināsies varbūtība, ka iestāsies apdrošināšanas gadījums. Tas, savukārt, negatīvi ietekmēs apdrošināšanas fondu un kopējo statistiku, palielinot kopējo iemaksu apjomu fondā nākotnē un klientiem apdrošināšanas pakalpojumi būs dārgākie.

- *atbrīvot apdrošinātāju no neliela zaudējuma atlīdzināšanas, samazinot procesa organizēšanas izmaksas.*

Ja pašrīks netiek izmantots, tad dažreiz apdrošināšanas atlīdzības apjoms var būt mazāks nekā izmaksas, kas saistītas ar to noregulēšanu, jo šajā procesā piedalās vairāki speciālisti (atlīdzību departamenta speciālisti, kas pieņem, izvērtē un lemj par atlīdzību; eksperti; grāmatveži un uzskaites speciālisti). Arī klientiem ne vienmēr atlīdzības pieteikšanas process, gadījumos ar nelieliem zaudējumiem, var būt efektīvs risinājums, jo jāreķina laiks, darbs un citi izdevumi, kas var būt šajā procesā. Lai mazinātu nelielu, pēc zaudējuma apjoma, apdrošināšanas atlīdzību skaitu, apdrošinātāji izmanto pašrisku, tas savukārt palīdz klientiem mazināt izdevumus sakarā ar riska nodošanu, jo līgumi ar klienta pašrisku izmaksā lētāk nekā līgumi, kur nav paredzēts pašrīks.

- *samazināt krāpniecību apdrošināšanā;*

Ja klients zina, ka apdrošinātāji neatlīdzinās zaudējumus pilnā apjomā, viņš arī nebūs ieinteresēts krāpties ar izmaksām, organizējot nedz mazos, nedz lielos

negadījumus. Kā arī būs vairāk piesardzīgs, lai nekļūtu par krāpniecības upuri. Tas varētu būt vēl viens arguments, kāpēc Latvijā vairāk izmanto ekscesu, jo lielākie krāpniecības gadījumi ir atklātie transporta zādzību gadījumos, un tieši liela pašriskā apjoms bija par iemeslu, lai klienti aktīvāk iesaistītos auto meklēšanā un vēlāk ar klienta palīdzību bija atklāts vesels grupējums, kas specializējās apdrošināto auto zādzībās.

Secinājumi un priekšlikumi *Conclusions and Proposals*

Pašrisks liek klientam justies atbildīgam un rūpēties par savu īpašumu, bet apdrošināšanas sabiedrībai iekonomēt mazo atlīdzības lietu administrēšanā. Literatūrā un normatīvos aktos nav vienotas definīcijas un pat nav vienota pašriskā jēdziena apzīmējuma. Pašrisku var klasificēt pēc atlīdzības noteikšanas metodes (ekscess un franšīza) un pēc noteikšanas principa (naudas, procentu, laika, gadījumu). No klienta viedokļa franšīza ir izdevīgākais pašriskā veids, jo lielo zaudējumu gadījumā nav jāmeklē papildus līdzekļi, lai kompensētu starpību, ko paredz ekscess. Latvijā pārsvarā tiek pielietots tāds pašriskā veids kā ekscess.

Summary

The deductible amount promotes the responsibility of the client and promotes the client to take care about his/her property, but the insurance company can save on the administration of small reward cases.

The aim of the research is to characterise the essence of a deductible, to specify the applied definitions by providing the types of the deductible amount and by characterizing their effects on the insurance process.

There is no united definition in literature and regulatory enactments and there is even no united designation for the term deductible amount. The deductible amount can be classified according to the method of providing the reward (excess and franchise) and according to the principle of provision (money, interest, time, case). From the client's point of view, franchise is the most profitable type of deductible amount because in the cases of large losses, no additional funds must be located to compensate for the difference, which provided by the excess. In Latvia mainly such a type of deductible amount is applied as an excess.

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FISKĀLĀS POLITIKAS IZVĒRTĒJUMS LATVIJĀ

Assessment of Fiscal Policy in Latvia

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Abstract. *The aim of the research is: to evaluate the fiscal policy in Latvia in accordance with the theoretical and practical conclusions of scientific investigations in the world, to determine the main fiscal risks and to find fiscal policy gaps in national government budgeting as well as in the use of funds and to define recommendations for making a sustainable fiscal policy in the country. At present, economic development in the world and Europe, the geopolitical situation, the migration of the population as well as the domestic problems of the development of Latvia pose new challenges to the government's fiscal policy; they create new fiscal risks and problems that require strong fiscal discipline and an efficient fiscal policy. The fact that Latvia did not have fiscal reserve resources for easier survival of the crisis is a severe and painful lesson about the errors in the fiscal policy. New circumstances that have occurred recently have to be taken into account by the policy makers. In order to build an effective fiscal policy, the following has to be found out: the most important factors of impact, whether they are of objective or subjective nature, and what fiscal risks may threaten the performance of individual fiscal indicators, and how big must be the fiscal security reserve.*

Keywords: *fiscal policy; fiscal risks; government budget; government expenditures; revenue.*

Ievads

Introduction

Jebkuras valsts darbība (valdības lēmumi) ir saistīta ar finansēm, jo valdības izvirzīto uzdevumu veikšanai ir vajadzīgi finanšu resursi, kuri tradicionāli tiek nodrošināti ar likumdošanas kārtībā noteiktajiem nodokļu un nodevu maksājumiem. Tie akumulējas centralizētajā valsts ieņēmumu fondā un tiek izlietoti valdības darbībā izvirzīto mērķu īstenošanai. Šie valsts finanšu resursi tiek plānoti un apstiprināti augstākajā likumdošanas orgānā kā valsts finanšu plāns jeb valsts budžets.

Līdz ar to aktualizējas fiskālās politikas aspekts. Tradicionāli mūsdienās fiskālā politika tiek definēta kā pasākumu kopums, kur ar valdības izdevumu un nodokļu palīdzību tiek regulēti sociālie un ekonomiskie procesi valstī (Mizen, Rubio, & Turner, 2018). Būtiski uzsvērt, ka to īsteno valdība ar valsts budžeta starpniecību, kas tiek definēts kā valsts ieņēmumu un izdevumu plāns, veidojot

un apstiprinot to noteiktam laika periodam un kā galvenie tā nodrošināšanas instrumenti ir nodokļi, budžeta izdevumi, valdības aizņēmums (Nice, 2002).

Līdz ar to kopš 20.gs. vidus, pastiprinoties valdības regulējošai lomai ekonomikā un, tādejādi pozicionējot valsts finanšu jēdzienu, par svarīgu gan ekonomisko, gan arī politisko diskusiju priekšmetu ir kļuvis valsts budžeta jēdziens, aktualizējot fiskālās politikas pasākumus.

Ekonomikas teorijā un valsts finanšu praksē pastāv dažādas pieejas fiskālās politikas veidošanā, īstenojot nodokļu un valdības izdevumu politiku. Kopumā var apgalvot, ka, lai sekmīgi realizētu fiskālo politiku, nepieciešams ne tikai noteikt valdības darbības mērķus, bet arī novērtēt, kā dažādi fiskālas politikas instrumenti ietekmēs sociāli ekonomisko situāciju valstī.

Pētījuma mērķis - pamatojoties uz zinātnisko pētījumu teorētiskajiem un praktiskajiem secinājumiem, izvērtēt Latvijā īstenotās fiskālās politikas aktivitātes, noteikt galvenos fiskālos riskus, identificēt fiskālās politikas nepilnības valsts budžeta veidošanā, izvirzīt ieteikumus ilgtspējīgas fiskālās politikas īstenošanai valstī.

Pētījumā izmantota monogrāfiskā, loģiski konstruktīvā, kontentanalīzes metode, viedokļu un koncepciju salīdzināšanas metode.

Fiskālās politikas teorētiski praktiskie aspekti *Theoretical practical aspects of fiscal policy*

Ekonomikas teorijā pastāv uzskatu dažādība un ir vairāki virzieni, kas atšķirīgi izskaidro konkrētu ekonomisko problēmu, tai skaitā, fiskālās politikas ietekmi uz galvenajiem ekonomiskās aktivitātes rādītājiem: iekšzemes kopprodukta pieaugumu, nodarbinātību, cenu līmeni, ārējās tirdzniecības bilanci, valdības budžeta deficītu. Fiskālai politikai ir svarīga loma valsts ekonomikā, ar tās palīdzību valdība iedarbojas gan uz preču un pakalpojumu, gan finanšu, gan darbaspēka tirgu, kā arī risina ienākumu pārdales un sociālā taisnīguma problēmas sabiedrībā (Mankiw, 2003; Mikesell, 2007).

Vārds fiskāls, cēlies no latīņu vārda *fiscalis*, kas savukārt veidojies no vārda „fiscus”, t.i., grozs, ko izmanto naudas vākšanai. Itāļu valodā ar „il fisco” apzīmēja iestādi, kas iekasē nodokļus. Tādējādi termins fiskālā politika nozīmē politiku, kas saistīta ar nodokļiem. Angļu valodā jēdzienu „fiscal policy” pirmo reizi izmantoja Kolumbijas Universitātes profesors E. Seligmans (Edwin Seligman) 20. gadsimta sākumā, kritizējot vācu ekonomista Ā. Vāgnera (Adolf Wagner) pausto viedokli, ka valdībai izmantojot budžetu ir jāiesaistās ienākumu pārdalē (Пушкарева, 2001).

Fiskālās politikas (valdības ieņēmumu un izdevumu veidošana) nozīmi valsts sociāli ekonomiskās attīstības kontekstā argumentējis angļu ekonomists Dž.M. Keiness (*John Maynard Keynes*) 20.gs. 30.gados, piedāvājot risinājumus

Lielās Depresijas problēmu risināšanā. Aktualizējot valsts budžeta nozīmi, viņš uzsvēra, ka nodokļi un valdības izdevumi ir galvenais ekonomikas regulēšanas un stimulēšanas mehānisms (Кейнс, 1993).

Līdz ar to var apgalvot, ka valdības darbība finansiālajā aspektā atspoguļojas galvenajā valsts finanšu dokumentā – valsts budžetā, kas ir valsts ieņēmumu un izdevumu uzskaitījums naudas izteiksmē.

Var secināt, ka fiskālā politika tiek īstenota ar valsts budžeta starpniecību. Pastāvot viedoklim, ka budžeta veidošana ir saistīta ar matemātiskiem paņēmieniem un prasmi strādāt ar skaitļiem, tomēr jāuzsver, ka visi lēmumi attiecībā uz valsts finanšu plāna izveidi ir jāizprot ne tikai ekonomiskajā, bet arī politiskajā kontekstā, kas ir formulēts arī LR likumdošanā: Budžets – līdzeklis valsts politikas īstenošanai ar finansiālām metodēm (Likums par budžetu un finanšu vadību, 1994).

Līdz ar to aktualizējas valsts budžeta jēdziens kā būtiskākais fiskālās politikas īstenošanas instruments.

No *materiālā aspekta* valsts budžets ir valsts naudas līdzekļu centralizētais fonds, kas tiek izlietots valdības vajadzībām, tas ir, ar tā starpniecību ir nodrošināta valsts funkciju veikšana. Tātad, valsts budžets ir valdības funkciju finansiālo iespēju nodrošināšanas instruments.

Kā *ekonomiskā kategorija* valsts budžets atspoguļo ekonomiskās attiecības starp valsti un fiziskām un juridiskām personām, kuras veidojas nacionālā kopprodukta pārdales, valsts centralizētā naudas fonda veidošanas un tā izlietošanas procesā.

Katras valsts ekonomiskās attīstības panākumi un neveiksmes ir atkarīgas no tā, cik veiksmīga ir bijusi valdības darbības izvēlētajā koncepcija, t.i., vai tā atbilst konkrētajam laikam un ekonomiskajiem apstākļiem (sociālais, ekonomiskais, politiskais, ģeopolitiskais faktors).

Var apgalvot, ka ekonomiskajai situācijai atbilstoši un savlaicīgi īstenoti fiskālās politikas pasākumi ir vitāli svarīgs priekšnosacījums, lai panāktu ilgtspējīgu tautsaimniecības attīstību.

Ekonomists, Hārvardas universitātes profesors, Dž. Sakss (Jeffrey D. Sachs) apgalvo, ka valdību nevada viens cilvēks vai viena politiska partija, tāpēc fiskālā politika ir lēmumu pieņemošo aģentu darbību kopums, piemēram, centrālā valdība, reģionālās valdības, lielie valsts uzņēmumi. Līdz ar to teorijām, kuras uzsver racionālas fiskālās politikas nepieciešamību, jāņem vērā fakts, ka fiskālā politika kopumā ir sarežģīta politiskā procesa rezultāts. Tāpēc arī tā ir saistīta gan ar institucionālajiem, gan arī ar politiskajiem apstākļiem, kādos valdībai jāpieņem savi lēmumi (Сакс, 2002).

Ekonomikas skaidrojošajā vārdnīcā jēdziens fiskālā politika ir definēts kā noteiktā periodā valstī veikti finanšu pasākumi, lai stabilizētu tautsaimniecības attīstību konjunktūras politikas jomā un nodrošinātu finanšu politikas īstenošanu.

Šādi pasākumi ir: nodokļu lieluma noteikšana (palielināšana vai samazināšana), kredītpolitikas vadīšana (kapitālieguldījumu veicināšana vai ierobežošana), subsīdiju lieluma noteikšana dažām nozarēm u. c. (Kačevska, 2003).

Tiek uzsvērts, ka fiskālās politikas pasākumu pielietošanas nepieciešamībā būtiska ir izpratne par ekonomikas attīstības cikliskumu – ekonomikas augšupeja, augsts pieprasījuma, piedāvājuma un iedzīvotāju vispārējās labklājības līmenis mijas ar periodiem, kad izaugsmes tempi mazinās, nodarbināto ienākumi arī, negatīvi ietekmējot kopējo pieprasījumu pēc precēm un pakalpojumiem (Allen, Hemming, & Potter, 2013).

Tas viss var izraisīt ekonomisko krīzi, kuras pārvarēšana var būt ilgstoša un smaga sabiedrībai kopumā. Šādās situācijās valdība ar fiskālās politikas instrumentiem var mērķtiecīgi iejaukties ekonomiskajos procesos, lai atjaunotu ekonomisko stabilitāti īstermiņā un nodrošinātu ilgtspējīgu attīstību ilgtermiņā.

Tā, finanšu un ekonomiskās teorijas un prakses attīstība pasaulē jau sen ir uzsvērusi fiskālo pasākumu lomu valdību pretcikliskajā ekonomikas regulēšanā, kaut arī tas dažkārt nozīmē nepopulāru lēmumu pieņemšanu (valsts budžeta izdevumu samazināšanu, nodokļu palielināšanu) (Alesina & Ardagna, 2009).

Fiskālās politikas īstenošanas aspektu izvērtējums Latvijā *Evaluation of Fiscal Policy Implementation Aspects in Latvia*

Akcentējot fiskālās politikas būtiskākos aspektus (galvenie instrumenti: nodokļi, valdības budžeta izdevumi; ietekme uz sociāli ekonomiskajiem procesiem, konsekvences), autore uzsver galvenos jautājumus fiskālās politikas īstenošanas un tās izvērtēšanai Latvijā:

- veidojot nodokļu sistēmu konkrētā valstī, tiek diskutēts, kādai jābūt labai nodokļu sistēmai, kā ar tās palīdzību panākt līdzsvaru starp budžeta ieņēmumiem un no budžeta finansētajiem izdevumiem;
- Latvijas fiskālās politikai raksturīga situācija ir ieņēmumu iekasēšanas nodrošināšanas problēma no vienas puses un sabiedrības spiediens uz izdevumu palielināšanu no otras puses;
- galvenais jautājums fiskālās politikas kontekstā ir ieņēmumu nodrošināšana, kas nozīmē apjomīgu pasākumu kompleksu: uzņēmējdarbības attīstību, „ēnu” ekonomikas apkarošanu, nodokļu politikas pilnveidošanu;
- pēdējos gados Latvijas nodokļu politiku būtiskāk ir ietekmējuši ekonomiskie, starptautiskie un poliskie faktori, sociālo faktoru nozīmību atstājot kā sekundāru;
- 2018.g. Latvijā tika iesākta nodokļu reformas īstenošana ar mērķi nodrošināt sabiedrības (iedzīvotāji, uzņēmējdarbības sektors) maksātspēju, sociālās vajadzības, kā arī ekonomikas stimulēšanu.

Pašlaik fiskālās politikas veidošanā ir aktualizējies jēdziens “fiskālais risks”, kas tiek definēts kā valsts budžeta izpildes novirze no budžeta plāniem, kas savukārt rada ietekmi uz gadskārtējā budžeta bilances nodrošināšanu un valsts finanšu situāciju turpmākajos gados (Fiskālās disciplīnas likums, 2013).

Ar mērķi nodrošināt konkrētai ekonomiskai situācijai valstī efektīvu fiskālo politiku, fiskālie riski tiek iedalīti kā kvantificējamie, kad var novērtēt to iestāšanās varbūtību un ietekmi uz vispārējās valdības budžeta bilanci, un nekvantificējamie, kad nav iespējams novērtēt iestāšanās varbūtību un fiskālo ietekmi. Jāuzsver, ka tas būtiski ietekmē fiskālās politikas īstenošanas pasākumus, kas atstāj zināmu ietekmi uz sociālo un ekonomisko situāciju valstī.

Autoresprāt, fiskālās politikas kontekstā jēdziens „fiskālais risks” ir būtiski svarīgs, jo tas ir saistīts ar valdības darbībai nepieciešamo finanšu nodrošinājumu gan īstermiņā, gan ilgtermiņā, balstoties uz ekonomikas ciklisko uzvedību.

Latvijā 2013. gadā, lai noteiktu konkrētus fiskālās politikas principus un nosacījumus, kas nodrošina ekonomikas ciklā sabalansētu valdības budžetu, tādējādi sekmējot ilgtspējīgu valsts attīstību, makroekonomisko stabilitāti un samazinātu ārējo faktoru negatīvu ietekmi uz tautsaimniecību, kā arī mazinātu valsts ievainojamību nākamo iespējamo globālo ekonomisko un finanšu krīžu gadījumos, tika pieņemts „Fiskālās disciplīnas likums”. Tas nosaka, ka Latvijā turpmāk tiks īstenota precikliska fiskālā politika. Lai to varētu nodrošināt, likumā ir definēti šādi Latvijas fiskālās politikas īstenošanas principi:

- taupības princips – pieejamie resursi izmantojami lietderīgi un efektīvi,
- uzkrājuma veidošanas princips – ja to ļauj ekonomiskā situācija, budžets tiek plānots un izpildīts ar pārpalikumu, kas savukārt ļauj segt nākotnes saistības ekonomiskās situācijas pasliktināšanās vai budžeta neizpildes gadījumā,
- precikliskas fiskālās politikas princips – tāda fiskālā politika, kas darbojas pretēji ekonomikas cikla tendencēm, proti, ekonomikas cikla augšupejas fāzē tiek realizēta ierobežojoša, bet lejupslīdes fāzē – stimulējoša fiskālā politika,
- stabilitātes princips – finanšu politika ir paredzama un pēctecīga, un tādējādi tā veicina ekonomikas attīstību un finanšu stabilitāti,
- ilgtspējīgas fiskālās politikas princips – fiskālās politikas mērķis ir nodrošināt, lai vispārējās valdības parāda apjoms neuzliek nesamērīgu slogu ekonomikai, bet veicina tās attīstību ilgtermiņā,
- paaudžu savstarpējās atbildības princips – fiskālajā politikā tiek ņemta vērā tās finansiālā ietekme uz sabiedrību gan šobrīd, gan nākamajās paaudzēs,
- atklātuma princips – tiek nodrošināta publiski pieejama informācija par fiskālās politikas mērķiem, to sasniegšanas metodēm un rezultātiem,

- solidaritātes princips – vispārējās valdības sektorā iekļautās institūcijas solidāri ievēro šajā likumā noteiktos un uz vispārējās valdības sektoru attiecināmos fiskālos nosacījumus (Fiskālās disciplīnas likums, 2013).

Var apgalvot, ka definētie principi valsts finanšu veidošanās kontekstā vērtējami kā pamats ilgtspējīgas ekonomikas attīstībai, mazinot ekonomikas cikliskuma svārstības. Bet, autoresprāt, problemātika ir saistīta ar to, ka principu īstenošana reāli ir ilgs un sarežģīts process, ko zināmā mērā ietekmē politizācija valsts budžeta veidošanā un izpildē.

Tāpēc autores viedoklis ir, ka Latvijas valdībai jāņem vērā Valsts kontroles (viens no Satversmē noteiktajiem Latvijas valsts varas orgāniem, kurš ar mērķi pozitīvi ietekmēt valsts pārvaldes darbu sniedz sabiedrībai iespēju gūt patiesu priekšstatu par valsts un pašvaldību budžetu resursu lietderīgu izmantošanu) revīzijas ziņojumi par Fiskālās disciplīnas likumā noteiktā taupības principa pārkāpumiem un jāizstrādā normatīvās prasības attiecībā uz atbildīgo amatpersonu rīcības novērtēšanu, kas uzliktu amatpersonām noteiktu atbildību. (Valsts Kontroles likums, 2002).

Tas motivētu valsts un arī pašvaldību iestādes rūpīgāk izvērtēt savu izdevumu veidošanu un rādītu labu piemēru iedzīvotājiem un uzņēmējiem valsts finanšu nodrošināšanas kontekstā.

Aktualizējot stabilitātes principa ievērošanu valsts finanšu jomā, jāuzsver, ka regulāri notiek diskusijas publiskajā telpā, norādot uz uzņēmēju neapmierinātību. Kā galvenais arguments tiek uzsvērts tas, ka Latvijā īstenotā finanšu politika joprojām nav pēctecīga, paredzama un prognozējama ilgtermiņā.

Ar mērķi nodrošināt valsts finanšu ilgtspēju (paredzamību un prognozējamību), fiskālo risku vadību nepieciešams pilnveidot, novērtējot reāli potenciālos ieņēmumus un izdevumus. Ja izdevumi netiek atbilstoši novērtēti, faktiski tie var izrādīties lielāki, savukārt pārvērtējot ieņēmumus, var veidoties situācija, ka tie ir zemāki, nekā gaidīts. Tas viss ir saistīts ar valsts budžeta plānošanas aspektiem, būtiskākais no kuriem, autoresprāt, ir makroekonomiskās prognozes. Latvijā pašlaik fiskālo risku deklarācija neietver makroekonomiskos riskus, jo teorētiski ekonomikas cikliskās svārstības nespēj būtiski ietekmēt valsts finanšu strukturālo bilanci. Tomēr pēdējo gadu pieredze rāda, ka praksē tā nav. Uz to norāda diskusijas par iekšzemes kopprodukta pieauguma rādītājiem, valsts finanšu veidošanos ietekmējošiem faktoriem.

Līdz ar to autore iesaka valsts finanšu plānošanā un īstenošanā, reāli izvērtēt potenciālos makroekonomiskos riskus, kuri var ietekmēt fiskālo situāciju valstī. Autore piekrīt Latvijas Valsts Kontroles viedoklim, ka Latvijai kā nelielai ekonomikai ir raksturīgas dinamiskas izmaiņas, kuras nosaka gan ārējie ekonomiskie, gan iekšējie sociālie procesi, un, lai mazinātu ietekmes negācijas, nelielām ekonomikām ir jānodrošina kvalitatīva, reaģētspējīga attīstības plānošana (Latvijas Republikas Valsts kontrole, 2017).

Izvērtējot esošo situāciju valstī, var apgalvot, ka lēmumiem fiskālās politikas jomā ir konceptuāli svarīga nozīme Latvijas turpmākajā attīstībā sociālajā un ekonomiskajā kontekstā, ņemot vērā arī ģeopolitisko situāciju pasaulē. Tāpēc pašlaik Latvijas valstij ir nepieciešami drosmīgi un reāli lēmumi attiecībā uz valsts finanšu veidošanās un izlietojuma mērķiem, to konsekventa īstenošana.

Secinājumi **Conclusions**

Tradicionāli mūsdienās fiskālā politika tiek definēta kā pasākumu kopums, kur ar valdības izdevumu un nodokļu palīdzību tiek regulēti sociālie un ekonomiskie procesi valstī. Būtiski uzsvērt, ka to īsteno valdība ar valsts budžeta starpniecību, kas tiek definēts kā valsts ieņēmumu un izdevumu plāns, veidojot un apstiprinot to noteiktam laika periodam un kā galvenie tā nodrošināšanas instrumenti ir nodokļi, budžeta izdevumi, valdības aizņēmums.

Ekonomikas teorijā un valsts finanšu praksē pastāv dažādas pieejas fiskālās politikas veidošanā, īstenojot nodokļu un valdības izdevumu politiku. Kopumā var apgalvot, ka, lai sekmīgi realizētu fiskālo politiku, nepieciešams ne tikai noteikt valdības darbības mērķus, bet arī novērtēt, kā dažādi fiskālas politikas instrumenti ietekmēs sociāli ekonomisko situāciju valstī.

Fiskālās politikas instrumentu pielietošanas nepieciešamībā būtiska ir izpratne par ekonomikas attīstības cikliskumu – ekonomikas augšupeja, augsts pieprasījuma, piedāvājuma un iedzīvotāju vispārējās labklājības līmenis mijas ar periodiem, kad izaugsmes tempi mazinās, nodarbināto ienākumi arī, negatīvi ietekmējot kopējo pieprasījumu pēc precēm un pakalpojumiem. Šāda apstākļu kombinācija var izsaukt ekonomiskās krīzes, kuru pārvarēšana var būt ilgstoša un smaga sabiedrībai kopumā. Šādās situācijās valdība ar fiskālās politikas instrumentiem var mērķtiecīgi iejaukties ekonomiskajos procesos, lai atjaunotu ekonomisko stabilitāti īstermiņā un nodrošinātu ilgtspējīgu attīstību ilgtermiņā.

Latvijā 2013. gadā, lai noteiktu tādas fiskālās politikas principus un nosacījumus, kas nodrošina ekonomikas ciklā sabalansētu budžetu, tādējādi sekmējot ilgtspējīgu valsts attīstību, makroekonomisko stabilitāti un samazinātu ārējo faktoru negatīvu ietekmi uz tautsaimniecību, kā arī mazinātu valsts ievainojamību nākamo iespējamo globālo ekonomisko un finanšu krīžu gadījumos, tika pieņemts „Fiskālās disciplīnas likums”, kas nosaka, ka Latvijā turpmāk tiks īstenota precikliska fiskālā politika. Lai to varētu nodrošināt, likumā ir definēti šādi Latvijas fiskālās politikas īstenošanas principi.

Aktualizējot stabilitātes principa ievērošanu valsts finanšu jomā, jāuzsver, ka regulāri notiek diskusijas publiskajā telpā, norādot uz uzņēmēju neapmierinātību. Kā galvenais arguments tiek uzsvērts tas, ka Latvijā īstenotā finanšu politika joprojām nav pēctecīga, paredzama un prognozējama ilgtermiņā.

Autore rosina Latvijas valdībai neignorēt Valsts kontroles revīzijas ziņojumus par Fiskālās disciplīnas likumā noteiktā taupības principa pārkāpumiem un izstrādāt atbildīgo amatpersonu rīcības un atbildības par pārkāpumiem novērtēšanas mehānismu, kas uzliktu amatpersonām noteiktu atbildību (ekonomiskā, politiskā, mantiskā). Tas motivētu valsts un arī pašvaldību iestādes rūpīgāk izvērtēt savus izdevumus un rādītu labu piemēru iedzīvotājiem un uzņēmējiem valsts finanšu nodrošināšanas kontekstā.

Summary

Traditionally, nowadays fiscal policy is defined as the means for regulating social and economic processes in the state, adjusting the government expenditure and taxes. It is important to emphasize that it is implemented by the government through the state budget, which is defined as the state revenue and expenditure plan, creating and approving it for a specific period, and that its primary instruments are taxes, budget expenditure and government loans.

In the economic theory and state finance practice, there are different approaches to fiscal policy formation, implementing tax and government expenditure policies. In general, it can be said that to successfully implement a fiscal policy, it is not only necessary to determine government activity aims but also to assess how different fiscal policy instruments will affect the social and economic situation in the state.

Understanding the cyclical nature of economic development is significant in applying fiscal policy instruments. Economic growth, a high level of market demand and supply, and the general wellbeing of the population alternate with periods of slower growth, lower incomes of employees, which has a negative effect on the overall demand for goods and services. Such a combination of circumstances can cause a financial crisis, which can take long to overcome and can be difficult for society in general. In such situations, the government, using fiscal policy instruments, can purposefully intervene in the economic processes to restore short-term economic stability and ensure long-term sustainable development.

In 2013 in Latvia, to determine such fiscal policy principles and conditions that ensure a balanced budget over the economic cycle, thus promoting sustainable development of the country, macroeconomic stability and decreasing the negative effect of exogenous factors on the national economy, and to reduce the vulnerability of the country in case of possible future global economic and financial crises, the Fiscal Discipline Law was adopted, which provides that hereinafter Latvia will be implementing the counter-cyclical fiscal policy. To ensure that, fiscal policy implementation principles for Latvia are defined in the Fiscal Discipline Law.

Bringing to attention the observing of the stability principle in the field of public finance, it has to be emphasized that regular discussions take place in the public arena, which indicates the dissatisfaction of entrepreneurs. The primary argument given is that the financial policy implemented in Latvia is still not successive and predictable in the long run.

The author encourages the Latvian government not to ignore the statements of the State Audit Office on the violation of the rationality principle provided in the Fiscal Discipline Law and design an evaluation mechanism for the actions and responsibility of officers in charge, which would place specific responsibility on the officers (economic, political, material). This would motivate the national and municipal authorities to assess their expenditures more carefully and would create a good example to the population and entrepreneurs in the context of national financial security.

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