What motivates the creativity of Generation Z employees? The influence of extrinsic and intrinsic motivating factors on the example of IT specialists from EU countries

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Abstract. Generation Z is entering the labor market. Like the previous generation, Generation Z has its own specific characteristics, values and expectations. This creates new challenges for managers and organizers of work processes in companies. The object of this study is IT professionals belonging to generation Z. Managing of creative employees is in itself, a complex task. Combined with the characteristics of the new generation, this task becomes especially important and difficult. Currently, there is a dearth of research in the academic literature regarding work motivation and work expectations for Generation Z, as this generation is just beginning its work life. This study seeks to clarify these issues. Empirical data for the study was collected through an online survey of Generation Z IT professionals from EU countries. The sample size is 2153 individuals. The study used intrinsic and extrinsic motivation theory and social motivation theory as the theoretical framework. The results of the study show that for IT professionals of generation Z it is primarily important to have a job where their professional skills are valued and conditions for the development of these skills are created, as well as their contribution to labor results is fairly evaluated. For IT professionals of this generation, it is important to work among people who share their values and beliefs, to have time for personal life and the opportunity to participate in socially important projects. Their creativity is enhanced when it is necessary to do a very important job that will bring respect to the team. They are not afraid of losing their jobs and are willing to take risks.

Keywords: Generation Z, extrinsic motivation, intrinsic motivation, social motivation, IT professionals

I. INTRODUCTION

Generation Z (people born between 1995 and 2014) is entering the labor market. Every time a new generation appears in public life, it arouses great interest among scholars and researchers. This is primarily due to the fact that each generation has its own values, its own expectations, its own reference points. The labor market is a place where all differences are particularly acute. Life orientations and life goals determine expectations from work, life style and values influence the factors of motivation to work and the requirements to the organization of the work process.

Generation Z is the first generation that was born in a global world [1], where many processes are interconnected, where there are close ties between people from different countries [2], where technology is available to people of all ages [3]. In their childhood and youth, this generation experienced the economic crisis of 2008, followed by the economic revival and development. They have grown up with the acceleration of communications and social networking, shaping the global debate on climate change and the need for solidarity to overcome social crises [4]. This generation is "globally oriented" [5] because they were raised in a culturally diverse environment where it is possible to connect people from different cultures, different backgrounds and different life situations through social networks. They are used to diversity, they have empathy for other people, and social justice and equality are important to them [5]. Generation Z is expected to be more educated than all previous generations and to favor creative activities [6].

Motivational preferences and job expectations for generation Z are poorly understood. In 2014, a study came out that showed the workplace preferences of this generation (at that time they were 16 to 20 year olds) [7]. The results of the study showed that for generation Z there are three factors that can be considered as factors of motivation to work. These are career opportunities, material rewards and interesting, important work [7]. Exactly in that order. Subsequent studies [8],[9] came to
similar conclusions only the order of motivational factors was different. In the first place is money, then important and interesting work, and only in the third place - career opportunities.

A study of career preferences of Generation Z university students in Slovakia, conducted by [10], showed that when looking for a future employer, the most important factors were the nature of the job and work-life balance. In addition, members of Generation Z expected their work to be internally satisfying and considered rewards (along with work-life balance) to be a strong factor for both job retention and job satisfaction.

Another study was conducted by the USA [11]. The respondents were members of generation Z. This study showed that training opportunities and job security are important factors for the motivation of generation Z. Finally, the results of the study by Stefanie Boyer and David E. Fleming [12] on the perception of the existing methods of attracting and retaining employees in Latvia show that the employees of generation Z do not seek lifetime employment, they put forward their special values, expect the employer to meet their needs for flexible working hours and flexible workplaces where they can apply their individuality, they are attracted by the company’s reputation, innovation, speed of change, a platform for education and promotion, as well as special additional benefits.

For Generation Z, creative professions are attractive, often related to the IT technology market [13]. IT technologies are an important element of modern economy, which is often called "knowledge economy". In such an economy skills, abilities, knowledge, creativity and individuality of employees, their human capital, are the key components [14], [15]. As a consequence, attracting, retaining and motivating creative employees becomes the most important and urgent management task in modern business companies [16]. In a situation when creative employees are also representatives of a new generation about which not much is known yet, the task of managers becomes doubly difficult.

The purpose of this study is to identify the opportunities and factors of motivation of employees of creative industries from generation Z on the example of the European IT market, to form a motivational management model that would support, develop and regulate the European IT market, to form a motivational platform for education and promotion, as well as special additional benefits.

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II. MATERIAL AND METHODS

The most popular theory of motivation that is currently used to identify motivating factors is the self-determination theory [17]. This theory divides motivation into two components: extrinsic motivation and intrinsic motivation. Ryan and Deci define intrinsic motivation as doing of an activity for its inherent satisfactions rather than for some separable consequence or performing an activity for the pleasure inherent in the activity, rather than working for reward or recognition.

In their research, Ryan and Deci found that intrinsic motivation makes an individual much more likely to be motivated and perform well as opposed to those that were extrinsically motivated [17]. In fact, those who were intrinsically motivated were less motivated by material incentives. Thus, intrinsic motivators are the sense of satisfaction that employees get from doing important work, especially when that work is done well.

Extrinsic motivation is defined as doing something because it leads to a separable outcome. It may be some kind of encouragement or reward (usually material), but not the feeling of satisfaction from doing the work. Such motivation is called extrinsic motivation because the means that are used for the purpose of motivation are external to the content of the work and to the worker himself. They are set and controlled by other people. The decisions of these people determine the amount of reward. Money is not the only motivator that is considered extrinsic. Extrinsic motivators include working conditions, job security, promotion opportunities [18]. There are studies that show that some extrinsic motivators, such as career advancement, can lead to an increase in intrinsic motivation, but the motivators themselves are still extrinsic [19].

Although it may seem that extrinsic motivation is not as important as intrinsic motivation, research often demonstrates that the ability to find a balance between types of motivation is an art of management and can lead to positive results [20].

Because Generation Z’s socialization took place in close contact with people from other cultures and in other life circumstances, they may be more sensitive to concepts such as justice, social solidarity. In order to uncover this, this study utilizes psychological theories of motivation, particularly justice theory.

Equity theory postulates that employees will commensurate their contribution to work with the result they get from it - the greater the reward, the higher their satisfaction [21]. According to this theory, employees who believe that they get more out of their work than they put into it will experience job satisfaction. Certain aspects of the job itself also influence how an employee perceives it. Clear and specific tasks bring greater job satisfaction because a clear role generates passion, engagement and leads to greater enthusiasm for the job.

The author identified five main characteristics of work that affect the psychological state of the employee and determine his motivation. These are the significance of the task, the opportunity for the worker to maximize his skills, identity, autonomy and feedback. Psychological theories of motivation use the concept of social motivation, which occurs when the tasks that a person solves in the workplace correspond to his values, ideas about justice, when he is surrounded by people with similar ideas about the world around him.

The empirical material for this study was collected by means of an on-line survey. The sample was formed by a random method, in the course of a general call, using filters to select respondents who worked in the field of IT technologies. The survey was conducted in all EU countries. 2153 respondents belonged to generation Z. The survey was conducted in 2021. The representatives of Generation Z were between 18 and 26 years old.
The questionnaire for the survey included blocks of questions aimed at identifying motivation to work, job satisfaction and factors that increase the creativity of employees. Creativity in this case means the ability to generate new ideas, solve complex problems, and seek new, unconventional solutions. The purpose of the study was not only to identify the presence and measure the importance of intrinsic, extrinsic and social motivation for increasing the creativity of IT professionals of Generation Z, but also to test how these three types of motivation relate to each other, constituting a certain motivational complex.

The study tested the following hypotheses:

H1: Intrinsic motivation is the most important motivation for increasing the creativity of Generation Z IT professionals.

H2: Without intrinsic motivation, employees will not be creative even if they are highly socially motivated.

H3: Extrinsic motivation is the weakest motivation for an employee to work more effectively.

The variables presented in Table 1 were used to operationalize the three motivational mechanisms (extrinsic, intrinsic and social motivation). Question: "What factors are important to you when choosing a job?" In this case we are not so much talking about your current job, but about the job you would like to have. Rate the importance of each of the following factors on a ten-point scale, where 1 means that this factor is not important to you at all, and 10 means that it is very important".

In addition to motivational factors, the study analyzed the factors that can increase the respondents' creativity, make them work more efficiently, create something new. These factors can also be divided into external and internal factors. They are presented in table 2. Question: "Were there times when you worked particularly quickly and efficiently? What factors made you work much more efficiently than usual?"

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<thead>
<tr>
<th>Factors of external motivation</th>
<th>Factors of internal motivation</th>
<th>Factors of social motivation</th>
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<tbody>
<tr>
<td>Having a job that allows me to make a career, take administrative positions, gives me the prospect to enter the management of the company.</td>
<td>Having a job that raises my self-esteem, inspires me, makes me work as efficiently as possible</td>
<td>Having a job that gives me the opportunity to participate in socially important projects</td>
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<tr>
<td>Having a job that generates an income that allows me to significantly improve my standard of living</td>
<td>Having the opportunity to do challenging work, the result of which gives me a sense of satisfaction</td>
<td>Having a job where my abilities, skills and abilities are adequately assessed</td>
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<td>Having good working conditions (comfortable office, social package, opportunity to do sports, organization of meals, etc.)</td>
<td>Having an opportunity to improve my qualifications and acquire new skills</td>
<td>To work with people who share my values and beliefs</td>
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<td>Have a job where I have credibility and respect from my colleagues</td>
<td>Have a lot of freedom in how I do my job</td>
<td>To work for a company where the process is organized in a way that each employee's contribution is valued fairly</td>
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<tr>
<td>Having a job that leaves enough free time for personal or family life</td>
<td>Having the opportunity to realize my skills and abilities to the fullest extent possible in my work</td>
<td>Having a job where financial rewards fairly evaluate the results of my work</td>
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<table>
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<tr>
<th>Extrinsic factors</th>
<th>Intrinsic factor</th>
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<tr>
<td>Fear of being fired or losing a bonus</td>
<td>Great importance, prestige of the task to be solved</td>
</tr>
<tr>
<td>Fear of censure from the team and management</td>
<td>Clarity, clarity of goals and desired result</td>
</tr>
<tr>
<td>Management approval</td>
<td>Interesting, complex, creative task</td>
</tr>
<tr>
<td>Respect of the team</td>
<td>Chance to move up the career ladder</td>
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**TABLE 2. FACTORS THAT INCREASE CREATIVITY.**

Frequency analysis was used to assess the significance of motivational factors for IT specialists of generation Z. Logistic regression method was used to test the formulated hypotheses. The dependent variable in the logistic model was the variable that divided the respondents into those who (according to their self-assessment) can be creative and those who do not possess this quality ("To what extent the statement "I can be very creative at my job" applies to you"). Thus, the model analyses what factors increase the respondent's confidence in his/her own creativity.

Motivational indices (extrinsic motivation, intrinsic motivation and social motivation) were used as independent variables, which were calculated as the average of all factors included in each index.

**III. RESULTS AND DISCUSSION**

In order to identify and evaluate the most important motivational factors in the study, a frequency analysis was conducted, in which only the responses in which each item was recognized as the most important (having a score of 10 on a scale of 1 to 10) were considered. The results of the analysis are presented in Figure 1. Since each respondent could choose several items that are the most important for him/her (have the highest score), the sum of responses exceeds 100%.

The most frequently encountered factor is the one indicating the importance for IT professionals of Generation Z of the opportunity to improve their qualifications and acquire new skills (58% of respondents gave this factor the highest degree of importance). In second place is a fair assessment of labor results in the company (56.5%). The third place in the rating is work in...
a company where the process is organized in such a way that everyone is rewarded according to their contribution to the production process (55%).

It is important to note that all these factors do not relate to the content of the work, but to the way the work process and interaction with employees is organized in the company. In other words, these are issues that do not depend on what the company does and what working conditions it provides.

Next in the rating are three factors that relate directly to the company, to what the company produces, how the company evaluates the work of employees and how the work process is organized. These are such factors as increasing the employee's self-esteem from what he/she does (52%), financial remuneration, which allows increasing the standard of living (49%) and the opportunity to devote enough time to personal life (46%). The motivation related to the opportunity to realize one's abilities is of the same importance. That is, personal life and self-actualization are of equal importance for generation Z.

Then there are motivational factors that are related to the characteristics of employees rather than to the characteristics of the company and the organization of the production process. These are the importance of career, the importance of respect from colleagues, the opportunity to work with people who share the same values, and the importance of participation in social projects.

Thus, the results of the study show the importance of intrinsic and social motivation factors for Generation Z. External motivation plays a less important role for this generation. However, one cannot but see that for this generation such categories as free time, good working conditions and the possibility of self-actualization are at the same level of importance. This indicates a certain hedonism inherent in the young generation and the fact that their basic needs in life have already been realized.

Fig. 2. shows the results of the frequency analysis of the factors for increasing employee creativity. Only those answers in which the factor was named very important were analyzed. The question implied multiple answers, so the sum of answers is greater than 100%.

The data presented in Fig. 2 shows that the creativity of the young generation can be increased primarily through challenges related to the complexity and prestige of the task to be solved (44.3%), as well as through the respect of the team (40.3%). This result suggests that creative people from generation Z are interested not only in professional realization, but also in recognition of their achievements. It is important to emphasize that representatives of this generation are inspired by the importance and prestige of the task, not by the fact that the task is interesting and difficult. This factor was chosen by only 30% of respondents. Perhaps, for IT specialists of the younger generation, interesting and meaningful work is not something exceptional, but an everyday phenomenon. The same can be said about the factor related to clarity of goals. The fear of punishment and dismissal is very bad for the creativity of generation Z.
Table 3 presents the results of logistic regression. This model tests hypotheses about the importance of the influence of different types of motivation to work on the creativity of employees of generation Z. The logistic model was built for each motivational mechanism separately because these variables are correlated with each other.

The results presented in the model support the first and third hypotheses, i.e., they show that of the three motivational mechanisms, extrinsic motivation is the weakest for increasing creativity and intrinsic motivation is the strongest. The strong pairwise correlation between the independent variables does not allow us to see the joint effect of motivational mechanisms on creativity, i.e., it does not allow us to test the second hypothesis. But, Model 3 confirms the higher importance of social motivation for Generation Z than extrinsic motivation. This means that employees who value fairness in the company and the social orientation of its activities will be more creative than those employees who are career (and thus do not like to take risks), are focused on income that raises the standards of their lives (i.e. they do not have some lower level needs satisfied than the needs of solidarity and self-actualization). It can be assumed that social justice is important for Generation Z, both in the workplace and in the world around them. And they are ready to show their best qualities for the sake of this idea.

The purpose of this study was to identify and evaluate the significance of work motivation factors for generation Z. This is important in order, firstly, to have some results for research aimed at understanding the behavior of the new generation in the labor market and, secondly, to better manage employees from this generation.

The results of this study show that IT professionals from generation Z are motivated by a wide range of factors that relate to job content, organization of the work process, and relationships with other employees in the production process. Researchers in other projects have come to similar conclusions [22].

It should be noted that most of the identified factors can be attributed to previous generations of IT specialists [23]. However, their importance and priority in generation Z differs from both Millennials and generation X. The main differences concern the factors that are described by psychological theories of motivation. For the new generation of IT professionals, fair relations between employees, as well as between employees and employers, are of great importance. In addition, the company's participation in social projects is also important.

In line with previous research, our results show that having a meaningful job that one really enjoys is a vital factor in motivating Generation Z. In many studies on Generation Z, this factor is rated as the most important one. A number of researchers from Slovakia, Czech Republic, and Poland, analyzing the perceptions of Generation Z students, found that the most important factor for choosing a future job for them is interesting and meaningful work [24]. In this study, meaningful work was mentioned by respondents as a factor that motivates them to be more creative. However, it was not at the top of the list. A more important factor was the opportunity to do a challenging and prestigious job, a job that brings respect from colleagues. Perhaps for young IT professionals, an interesting job is a prerequisite to signing a labor contract. It is a necessary condition to start working, but not sufficient to work particularly effectively. In any case, it is important to clarify in further research the content of the concepts: “meaningful work” and “prestigious work”. Whether these concepts coincide with the notion of “work that contributes to personal growth” and “work that allows one to realize all of one's abilities and skills”. It is
important to understand what makes a job meaningful, prestigious and interesting. What makes a specialist agree to enter into a working relationship with a company, and what stimulates him to high performance. This question becomes not trivial at all when it comes to creative employees.

Another important factor for work motivation that this study revealed is work-life balance and the freedom to manage one's working time. This is not a unique result. It has also been written about [25]. However, these studies referred to older generations. What Generation Z mean by work-life balance is not very clear yet, as most of them do not have families and children. This question also needs more research.

IV. CONCLUSION

Our main objective was to explore Generation Z's perceptions of work motivation factors and factors that can enhance their creativity. The study aimed to understand the motivational models of IT professionals of generation Z in order to approximate this model to people in creative professions from this generation. The design of the study was is designed in such a way as to be able to obtain some quantitative estimates as well as to test a number of hypotheses about the relationship and importance of motivators of different levels. This is one of the differences between this study and a number of other studies that also focus on the new generation in the labor market but do not make such estimates [26].

An important result of this study is that it has shown some differences between generation Z and previous generations. These differences are related to the fact that for this generation the values of freedom, justice, tolerance are greater than the values of comfort and career. It can be assumed that companies that have a developed social responsibility program, companies that are involved in social, charitable and environmental projects have more chances to get talented and creative employees from the younger generation.

Another important result is that the most important factors of work motivation of Generation Z are not related to wages, and not to the company's products, but to the way the work process is organized in the company. This primarily concerns fair participation of employees in the production process and fair payment for this participation. Also important is the employee's freedom in planning his working time and management's concern for his self-fulfillment. All this shows the importance of the company's management in attracting creative young employees.

Obviously, this study also has a number of limitations that need to be mentioned. First of all, it is related to the small sample for which the analysis was conducted. This drawback can be explained by the methodology of the survey organization, which assumed random selection of IT specialists, rather than a directed search for IT specialists of generation Z. Since this generation is just entering the labor market, their share among IT specialists is not very high yet. It may be too early to make confident generalizations about all next-generation creatives in the labor market, but important estimates have been obtained and hypotheses for further research can be formulated. As with any findings, the results of this study need validation. And, given the interest of researchers in Generation Z, we can expect the necessary discussion in other studies.

REFERENCES


