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# **Modern Views on the Gamification of Business**

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#### **Abstract**

The purpose of this article is to identify modern views on the gamification of business. The paper mainly focuses on the theoretical aspects of the application of gamification in different sectors of economy, as well as on the best practices of application of gaming techniques. General scientific methods and various methodologies have been comprehensively employed to identify the attitude of the residents of the Moscow Region towards gamification and to achieve the set goals.

Keywords: Management; Gamification; Business; Game Mechanics; Creative Management

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#### INTRODUCTION

A series of factors of both objective and subjective nature influence the global economy. Under their influence, the financial and economic situation has become more complicated and even worse in many countries of the world. In the current crisis conditions, dynamically changing demand for goods and services, an enterprise competitiveness is ensured by its investment, image, and, first of all, by its human resources advantages. The economic crisis, high tax burden of business, lack of highlyprofessional staff, insufficient level of accessibility to basic social benefits and services for people determine the necessity to look for new strategies and mechanisms for ensuring the competitiveness of business processes, development of human resources, creating the effective motivation system [1]. The modern studies enable to detect keen demand for engagement and retention of highly qualified managerial human resources both in the public and in the municipal administration systems and in private business. In the current conditions, a certain contradiction has emerged between the requirements to young specialists imposed on them by the current social and economic situation conditioned by the necessity to look for new forms and methods of work and actual professional skills, knowledge, level of qualification of modern graduates [2].

The sustained interest to the gaming techniques in the theory and in the practice of management is determined by their wide opportunities in the processes of research and solution of specific social and economic problems of an organisation, increase of the level of its competitiveness, training and development of staff, in self-organisation [3].

As practice shows, on condition of relevant scientific and methodological support, gamification becomes the most efficient mechanism for training of staff, their improvement and motivation, increase in labour productivity. In Russia and abroad, new provisions, approaches to the gamification of various areas are being developed on a permanent basis. Kevin Werbach and Dan Hunter suggested that game thinking should be used in marketing, innovations, motivation of employees in various areas of business and that gamification would be introduced into business process in six successive steps

[4]. Gabe Zichermann and Joselin Linder suggested that actual and potential consumers of goods and services apart from the employees of the organisation should be engaged in business processes while playing [5]. Moreover, A. Popov believes that one cannot imagine the work of a modern marketing manager without using various games in order to attract buyers [6]. With this regard, Michael Hall emphasises the psychotherapeutic methods – neuro-linguistic programming, therapy of behaviour and emotions, reality therapy and logo therapy to improve business performance efficiency [7].

There are approaches for putting the gamification essentials into human mind, relying on the understanding of games as a phenomenon of being, on philosophical games for children and adults [8,9].

Gamification is used fragmentarily when grading an organisation [10,11] in the development of time management methods with a different category of employees and students [12].

Gamification is considered as a tool for increasing labour productivity, and affects the efficiency of HR and working time usage by an enterprise [13]. The labour productivity growth means the saving of materialized and direct labour, and is one of the most important factors of productivity enhancement [14]. Therefore, the application of gamification must be focused, first of all, on the productivity enhancement through the labour productivity growth.

It goes without saying that one of the ways to increase labour productivity is its intensification. But the intensification as such may lead to significant overloads suffered by staff and will have adverse effect on the employees and on the enterprise as a whole. Therefore, the search for modern methods enabling to increase the labour intensification while retaining and developing the potential of the employees of the enterprise so often leads to the application of gaming techniques that facilitate the substantive part of labour activities and ease the psychological stress.

The theoretical approaches of two Americans, Neil Howe and William Strauss, fit logically well into this pattern. They assert that young people (born in 1983 to 2003) are "millennials" whose mindset formation had been affected by acts of terrorism, local armed conflicts and rapid development of technologies. They appreciate freedom and joy, they cannot imagine life without the Internet and they show a strong dislike of restrictions. A good motivation for "generation Y" is a free schedule, remote job, creative atmosphere and small rewards for any achievements. The principal feature distinguishing generation Y from the rest of the world is over-dependence on games [15].

A survey among the employers has confirmed that the young generation Y people manifest themselves the same way in the corporate culture too. Some employers are concerned that the youngsters expect too much from their employment, they prefer to adjust the work conditions to their tunes, but not vice versa. However, they are capable

to work, they want to benefit from their jobs and to have more involvement in decision-making, they prefer to use flexible working hours [16].

Appearance of people of a new breed – the generation Y – enables to more intensively implement the gamification, including computer technologies of labour processes, modern automated systems with a shared information space [17]. It is especially relevant today when all the areas of business include more and more representatives of this generation – "the Trophy Generation".

Indeed, it is quite problematic to manage and motivate such employees using the traditional methods. The gamification may help here - use of gaming elements and game mechanics in a non-game context. Gamification does not turn the entire business into a game [15], similarly like innovations do not turn it into a research and a development laboratory. Gamification is a powerful toolkit that can be used to solve the tasks arising in any areas of business. Often, the modern gaming technologies in business are absolutely unlike usual games. E.g., in the course of decision-making, a gamestorming method – combination of a game and brainstorming – will be useful [18]. Gaming techniques for a long time have been used in the Russian education for more efficient training of children. At the present time, resources of various kind are being created to promote gamification, including using the infographics [19-21], databanks in which different game projects performed by schoolchildren are collected [22].

Gamification methods are also used in modern sociology for investigating the community activities [23].

In the context of organisation of labour activities, gamification is most intensively used by the HR managers and line managers of different levels.

According to the HeadHunter specialist, gaming techniques are most frequently used in the modern Russian companies for motivation, recruitment and training. As practice shows, a specialist sets himself/herself the following objectives using the gamification tools: to increase loyalty and image of their companies, promote and advertise the company's HR brand, emotionally involve the employees into interaction with each other [24].

In some cases, badge techniques are used that may be in the form of virtual acknowledgements ("carrots") from the colleagues for specific merits, which, in the long run, lead to the receipt of a badge by any employee for mutual assistance, speed of work, optimism, etc. The experience indicates that the employees are interested in monitoring the dynamics of such automatic badges that focus the attention on specific merits of an employee in the Intranet [25].

Generally, gamification is covering the common business space more and more. However, the question of how important the gamification is for various social categories that participate in labour activities or undergo training in the Moscow Region has not been discussed yet. This has become the subject of this research.

### **METHODOLOGY**

General scientific methods have been comprehensively employed in order to identify the nature of views on the gamification of business. The analysis enabled to reduce the groups under consideration to elements and to identify the nature of views on gamification throughout the entire period in question, while the synthesis enabled to integrate them into the whole. The sociological methods (observation, surveys: interviewing, questionnairing) were used to identify attitude towards the social phenomena associated with the problem of business gamification subject to the social status, education and age of respondents. Statistical methods were employed to analyse the received data for reasoned justification of the conclusions concerning the emergence and solving the problem of the gamification of business.

The empirical base for the research of the views on the gamification of business were respondents from the Moscow Region. The research was conducted in Moscow during nine months in 2015-2016 in two stages. The first stage – six months using the methods of interviewing of employees from different organisations and higher school students to identify the problematics concerning the gamification of business in order to define the main indicators and draw up the questionnaire form to conduct querying of the Moscow audience. At the second final stage – querying using special software [26].

In terms of the gender aspect the group in question represented 81.1% of female and 18.9 % of male respondents in course of querying using a special questionnaire form in Google Forma Software. The age of those participated in the research at the final stage was from 22 to 50 with a shift of emphasis toward 22 to 35. The group mainly included the middle class people (40.9%) and below the middle class (37.8%). The respondents that represented people with upper-middle income and the low-income people who had enough money only for food were of the same percentage (10.2%). The percentage of prosperous people was 0.8%. In terms of the 'size-of-business' indicator, the respondents were divided as follows: employees of large companies – 39.4%, middle business – 23.6%, small business – 37%. Most of the respondents were specialists – 51.2%, then clerks – 23.6%, managers and workers – 11.8% of each group, other – 1.6%. Such diversified structure of respondents enabled to study the views on the gamification of business in a more systematic manner.

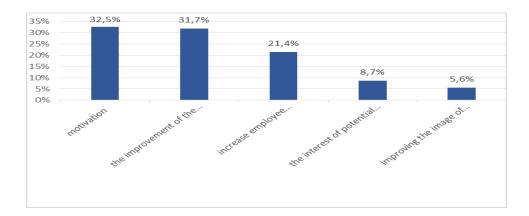
# **RESULTS**

In course of the research of the views on the gamification of business at the first stage, we succeeded to identify that the main problem zones concerning the use of gamification in business were: the main purpose of the gamification in the organisation's activities; main conditions for the implementation of gamification; activities in the organisation that can be gamified; what game mechanics are most suitable for adoption

in the staff motivation process in a Russian company; and who must address the issues of organisation and management of gamification in a modern organisation.

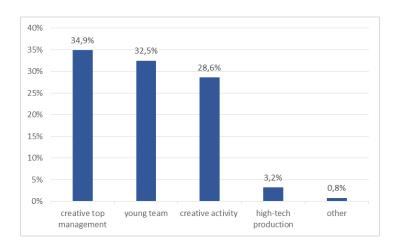
In the context of the second stage of the research, we have found out that only 64.6 % of the respondents heard about gamification, and that gaming techniques are employed only in 18.9% of the companies (organisations).

The analysis of the primary objective of the gamification in the organisation's activities has shown that the objectives which are regarded as the main objective are: to increase employee motivation in the organisation (32.6%), to create social and psychological climate in the organisation to facilitate employee creativity and initiative (31.7%), to increase employee involvement in the process of corporate training in the organisation (21.4%). The following indicators significantly lag behind, such as: to increase clients' interest in products and services of the company (8.7%) and to create the image of the organisation as a progressive and innovative one (5,6%) (Figure 1).



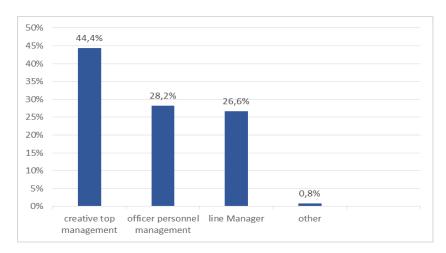
**Figure 1:** Primary objective of the gamification in the organisation's activities.

Among the main conditions for successful implementation of gamification into the organisation's activities are: creative top management (34.9%), young team (32.5%) and creative activity of the company (28.6%). High-tech production was not among the leading indicators for the gamification business processes (3.2%) (Figure 2).



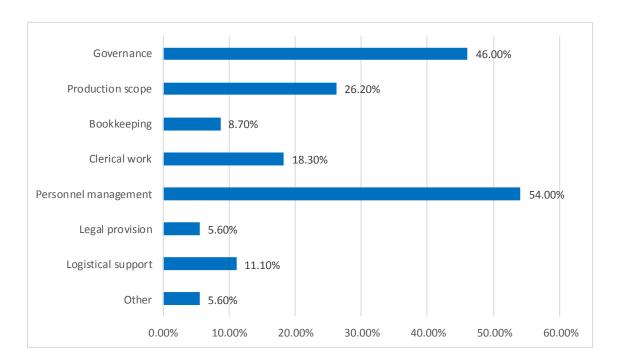
**Figure 2:** Main conditions for successful implementation of the gamification into the organisation's activities.

One of the important issues was to define the person in charge for the implementation and management of gamification in a modern organisation. Most respondents think that this is a responsibility of the creative director (44.4%), the next in order of importance is the personnel management officer (28.2%), the next is a line manager of the relevant division (26.6%), and some respondents could not decide (0.8%) (Figure 3).



**Figure 3:** Employee in charge for the implementation and management of gamification in a modern organisation.

The issue of gamification of specific activities in the organisation was studied using the respondents' votes 'for' and 'against' an opportunity to use gaming techniques in this sphere of activity. It has been found that the leaders are: personnel management (54%); line management (46%) and production sphere (26.2%). In the opinion of the respondents, clerical work (18.3%), logistical support (11.1%), bookkeeping (8.7%) and legal provision (5.6%) can be gamified to a lesser degree (Figure 4).

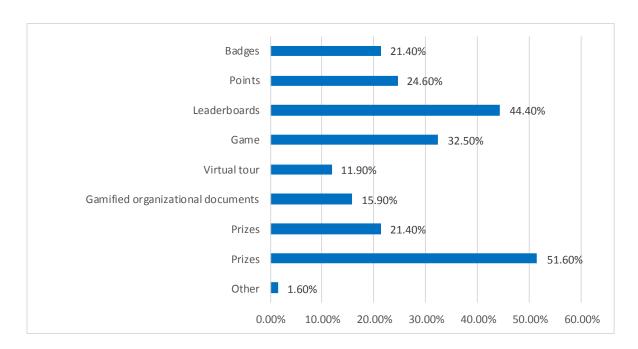


**Figure 4:** Activities inside the organisation that can be gamified.

The nature of influence of the game mechanics on the development of the staff motivation process in a Russian company was also identified using the method of selection by the respondents of the 'for' and 'against' options from the proposed variants. As a result, it has been found that the following became most popular: prizes (51%), leader boards (44.4%), game (32.5%), points (24,6%), virtual money and virtual badges (21.4% each), gamified organizational documents (comic form instructions) (15.9%) and virtual tours (11.9%) (Figure 5).

# DISCUSSION

Generally, the problem of gamification excites the respondents of the Moscow Region. However, more than one-third of them (35.4%) have not heard of such a method for personnel labour organisation in the organisation, and the gaming techniques are employed only in 18.9% of the organisations. This is indicative that the line management and HR-management are insufficiently aware of the modern methods for improving efficiency of HR management and organisation management; this also affects the rank-and-file employees of the organisations. Besides, they are not prepared to use the modern technologies in their practice.



**Figure 5:** Game mechanics most suitable for the implementation into the staff motivation process in a Russian company.

Those managers, specialists and workers that are the supporters of the gamification believe that the main objectives of implementation of gaming techniques are, first of all, to improve staff motivation and create a favourable social and psychological climate in the organisation that will facilitate the creativity and initiative of employees. And this is logical because for creative and dynamically developing people who like gamification, the motivation and a free, creative, friendly atmosphere comes to the foreground. In aggregate, this will give a significant synergetic effect enabling to fully implement the potential of creative employees and improve the competitiveness of the organisation. The involvement of employees in the process of corporate training is also important in the organisation enabling (using the gaming techniques) to consolidate the efforts of all staff and to act jointly at a higher professional level as an efficient team. The presence of a rich creative potential, proactive attitude, innovative ideas of employees will contribute to improvement of efficiency of the organisation.

Taking into consideration the actual situation in the market of goods and services, in the labour market, and the problems of a particular organisation, the respondents pointed out the following conditions: creative top management, young team and creative activity of the company as the most important and necessary conditions for successful implementation of gamification. This assessment is logical. In the first place, there is a person who must organise this process, who must necessarily possess creativity and must form a creative atmosphere. A certain difficulty arises in this connection. Hardly all the organisations can afford to have a creative director (for financial reasons); therefore it should be possible and reasonable to delegate such responsibilities to the officers of the HR management service. And the HR-manager must work in close cooperation with

a line manager.

The intent to continue the game in practical life is more typical for the youth; therefore it must become the backbone for the gamification of the organisation.

In the course of the research, we have found that, in the opinion of the respondents, not all the spheres of activities can be gamified. Primarily, the personnel management, line management and production spheres can. The results of the research confirm the idea that gamification must, first of all, apply to the profit making sectors of professional activities of the company. The production and the management are the spheres that enable the organisation to improve its competitiveness. HR management service is featured here because it ensures the maximum use of human resources in the business activities. The procurement services are formalised to a larger extent and can hardly be gamified.

Certain interest caused the results of the querying related to identification of the nature of influence of the game mechanics on the development of the staff motivation process in a Russian company. Prizes (both material and non-material) took the first place. Most people want to have positive emotions and awards that confirm their level of development, competitiveness, form of self-expression through a game situation. The respondents want to see the transparency and fairness of assessment either on the leader board or in the course of the game. The game also facilitates the achievement of a higher degree of freedom in the performance of employment duties, maximum use of the creative potential at work. Virtual money and virtual badges are also highly appreciated and demonstrate that the most part of the audience has experience in computer games, where such methods of motivation are widely used.

# CONCLUSION

In the contemporary world, the managers and the organisations that seek to implement (within the shortest possible time) new approaches to management, technologies of use of human resources are coming to the leading positions. Gamification of business processes, staff activities is a modern advanced technology for activation of staff's creative potential and effective use of human resources. The research of the business environment of the Moscow Region enabled to identify the nature of views on the problem of gamification of labour processes and HR management in an organisation.

The analysis of the research data has shown that the idea of gamification did not capture in full the minds of the managers and rank-and-file employees. To study and implement it, creative people are needed that must, using the authority (line management, HR-management), activate the training of staff how to use gaming techniques, improve the activities of organisations based on gamification.

The idea of gamification has become most popular among the youth. Creativity, freedom and friendly working atmosphere are highlighted as the main conditions for the

effective application of gaming techniques in the business environment. Indeed, the concept of game provides for the multivariance in making most reasonable decisions and the ways for implementing them. Therefore, in the course of the games, most optimal solutions are elaborated to solve business tasks. Apart form the moral satisfaction, creative self-expression and achievement of fairness, the award for success in a game is seen by the audience as a prize.

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#### REFERENCES

- 1. Frolova EV (2014) Deformations in interbudget relations in Russian federation: Socioeconomic and political risks. Actual Problems of Economics 8: 351-359.
- 2. Frolova EV (2014) Social infrastructure of contemporary Russian municipal bodies: Issues and prospects for modernization. Sotsiologicheskie Issledovaniya 12: 51-58
- 3. Bondaletov VV (2015) Evolution of self-organization ideas. Sociological Studies 3: 132-139.
- 4. Kevin W, Dan H (2015) For the Win: How Game Thinking Can Revolutionize Your Business. Moscow. http://www.litres.ru/pages/biblio\_book/?art=8639364.
- 5. Gabe Z, Joselin L (2014) The Gamification Revolution: How Leaders Leverage Game Mechanics to Grush the Competition. Moscow p: 164. http://www.litres.ru/pages/biblio book/?art=6611902.
- 6. Popov A (2006) Marketing Games: Entertain and Govern. Moscow p: 153.
- 7. Hall M (2004) Games Business Experts Play. Moscow: Publishing House Eksmo p: 336.
- 8. Beloglazova LA (2007) Game as a Phenomenon of Being. Voronezh p: 66.
- 9. Retyunskikh LT (2003) The School of Socrates. Philosophical Games 10 Years pp: 205.
- 10. Bakhtina OY, Kirillov AV, Matyash SA, Urzha OA (2015) The development of technology for higher education institution's administrative personnel assessment.

International Education Studies 8: 179-190. http://dx.doi.org/10.5539/ies.v8n5p179.

- 11. Kirillov AV, Vinichenko MV, Melnichuk AV, Melnichuk YA, Lakina Y (2015) Higher education institutions grading: Administrative and support personnel. International Journal of Economics and Financial Issues 5: 173-182.
- 12. Kirillov AV, Tanatova DK, Vinichenko MV, Makushkin SA (2015) Theory and Practice of Time-Management in Education. Asian Social Science 11: 193-204. http://dx.doi.org/10.5539/ass.v11n19p193.
- 13. Abdulayev KK (2011) Labour Productivity as a Factor of Improvement of Production Effectiveness at the Enterprise. Russian Entrepreneurship 12: 176-180.
- 14. Trofimova L (1996) Methods for Summary Assessment of Effectiveness of the Enterprise's Economic Activities. Auditor 10: 21–26.
- 15. Werbach K, Hunter D (2015) For the Win: How Game Thinking Can Revolutionize Your Business. Moscow p: 224.
- 16. Nemkov A (2016) Theory of Generations in Russia. Generation. <a href="http://sykt24.ru/novosti/teoriya-pokolenij-v-rossii-pokolenie-y/">http://sykt24.ru/novosti/teoriya-pokolenij-v-rossii-pokolenie-y/</a>
- 17. Veretehina SV (2015) Automated personnel evaluation system. personnel and intellectual resources management in Russia 5: 72-77.
- 18. Gray D, Brown S, Macanufo J, Gamestorming (2012) A Playbook for Innovators. St. Petersburg: Piter pp: 288.
- 19. (2016) RuGamification Group. ru-gamification.com.
- 20. (2016) Infographics. Gamification. surfingbird.ru.
- 21. Game Mechanics in Business. Online at http://gamification-now.ru/
- 22. (2016) Metaver. Metalaba Databank of Developments. http://metaver.pbworks.com/w/page/3733997/
- 23. Vetrenko IA (2006) Game as a method for research of the social reality. Psychopedagogy in Enforcement Authorities 2: 127-129.
- 24. Osovetskaya N (2016) HR-branding: Best Practices of the Decade. St Petersburg: Piter p: 464.
- 25. Sysoikina M (2016) Gamification: Fair Game. http://blog.bitrix24.ru//153/.

(2016) Gamification and Business. 26.

https://docs.google.com/forms/d/1fdqh5Xr3iXp40nhsdaBEc8uipoEugyTe5kmmwvC9EJk /viewform?c=0&w=1