

UDC 338.1

JEL Classification: C93, L86, O30

DOI: <https://doi.org/10.20535/2307-5651.31.2024.319023>**Omelchenko Anna**

Candidate of Economic Sciences, Senior Lecturer

(corresponding author)

ORCID ID: 0000-0001-9376-7566

**Minkach Sofia**

Bachelor Student

ORCID ID: 0009-0008-7861-675X

National Technical University of Ukraine

"Igor Sikorsky Kyiv Polytechnic Institute"

**Омельченко А. І., Мін'яч С. В.**

Національний технічний університет України

«Київський політехнічний інститут імені Ігоря Сікорського»

## GAMIFICATION IN BUSINESS: CONTEMPORARY APPROACHES AND PRACTICAL APPLICATIONS

### ГЕЙМІФІКАЦІЯ В БІЗНЕСІ: СУЧАСНІ ПІДХОДИ ТА ПРАКТИЧНЕ ЗАСТОСУВАННЯ

*The purpose of this study is to analyze modern approaches to implementing gamification in business processes and assess its practical value for increasing productivity, competitiveness and customer loyalty. The article defines the concept of gamification, outlines its basic principles and classifies the main methods used in modern business practice to optimize user experience and increase employee motivation. The research methodology includes the analysis of practical cases that include game mechanics in the areas of marketing, management, and production. The study results demonstrate a significant increase in employee productivity, customer satisfaction, and overall business operations efficiency. The study's practical conclusions include the formulation of actionable recommendations for integrating gamification strategies tailored to specific business needs to promote sustainable development and long-term success.*

**Keywords:** gamification, motivation, human resource management, customer loyalty, game mechanics, competitive advantage.

Гейміфікація в бізнесі є одним із сучасних інструментів, який дозволяє підвищити ефективність, залученість і мотивацію учасників бізнес-процесів. Метою дослідження є вивчення сучасних підходів до використання ігрових механізмів в різних аспектах бізнесу та визначення їхньої практичної цінності для підвищення продуктивності праці, конкурентоспроможності та лояльності споживачів. Актуальність теми обумовлена необхідністю пошуку інноваційних рішень для адаптації до динамічних змін у бізнес-середовищі та збільшення рівня залученості цільової аудиторії. Методика дослідження базується на застосуванні кількісних і якісних підходів, включаючи аналіз успішних кейсів, гейміфікованих бізнес-процесів та оцінювання їх ефективності. У роботі використано методи спостереження, узагальнення та аналізу підвищення обізнаності у впровадженні гейміфікаційних елементів у бізнес-процеси діяльності компанії. Це дозволило визначити ключові чинники успішності гейміфікації та виявити можливості її інтеграції в різні бізнес-моделі. За результатами дослідження було доведено, що гейміфікація сприяє підвищенню продуктивності працівників, їх мотивації та задоволеності роботою. Застосування ігрових механізмів у маркетингу дозволяє залучити нових клієнтів і збільшити рівень їх лояльності до бренду. У виробничих процесах гейміфікація покращує командну роботу та сприяє оптимізації виконання завдань. Одним із ключових результатів є формулювання рекомендацій щодо ефективного впровадження гейміфікації залежно від специфіки бізнесу, що включає вибір ігрових механізмів, адаптацію до корпоративної культури та оцінювання результатів впровадження. Практична значущість результатів дослідження полягає у можливості їх застосування для оптимізації бізнес-процесів, підвищення рівня залученості клієнтів та працівників, а також покращення конкурентоспроможності компанії. Рекомендації, запропоновані в роботі, можуть бути використані для розробки індивідуальних гейміфікованих стратегій, які враховують специфіку галузі та особливості цільової аудиторії. Це дозволяє бізнесу ефективно адаптуватися до сучасних викликів і забезпечити стійкий розвиток.

**Ключові слова:** гейміфікація, мотивація, управління персоналом, лояльність споживача, ігрові механіки, конкурентоспроможність.

**Problem statement.** High competition, rapid technological development, and rapidly changing consumer needs and expectations require companies to adapt to new conditions and look for innovative approaches to attracting customers, improving employee efficiency, and increasing audience loyalty. Gamification is one of the tools that demonstrates its effectiveness in the modern business environment. This tool has become widespread due to its

ability to solve a wide range of business problems: from attracting new customers to increasing employee productivity and optimizing internal processes. Global companies such as Nike, Starbucks, and Microsoft demonstrate successful examples of gamification implementation, which confirms its importance for achieving strategic goals.

The relevance of gamification research is driven by the need for new, creative approaches to doing business that

meet the challenges of the digital age. Studying modern approaches to gamification and analyzing its practical application allows not only to understand the mechanisms of its impact, but also to identify the potential for use in various industries, such as marketing, human resources, training and development of organizations.

**Formulating the purposes of the article.** The purpose of this article is to study the peculiarities of introducing game mechanics elements as an effective tool for adapting a company to modern challenges and increasing productivity and competitiveness.

**Presentation of the main research material.** In the age of digitalization, companies face a variety of challenges related to employee retraining and training. Routine work is being taken over by robots and technology, and the development of artificial intelligence and Big Data is speeding up and simplifying work processes. This leads to radical changes in the nature of work, with some professions becoming irrelevant and others appearing on the market [1]. For example, the automation of call centers and the introduction of chatbots using artificial intelligence have significantly reduced the need for people to perform routine tasks to receive customer calls. Call center operators have been replaced by chatbot managers who set up, train, and optimize chatbots. This profession requires new knowledge and skills [2].

The digital transformation of the labor market is also underway, resulting in constant changes in the demand for skills and competencies required by employers. Companies must therefore retrain their employees and develop new skills [1].

There are many approaches to training employees and improving their knowledge, but it is the use of gaming techniques that helps to maximize employee engagement and develop new skills. These gaming techniques are

called gamification. The term gamification was coined by Nick Pelling in 2002. But it was only in the second half of 2010 that the term became widespread. As the term implies, gamification is not really about creating a game, but about transferring some of the characteristics of a game to something that is not a game. Later, two definitions emerged that are considered to be the main ones: "Gamification is the use of game thinking and game mechanics to engage users and solve problems" [3]; "Gamification is the use of game elements and game design techniques in a non-game context" [4].

The analysis of different approaches to the definition of the term for game mechanics allowed us to emphasize that gamification is used in non-game contexts, i.e., not about creating real games, but about using some characteristics of games to attract users.

So, "gamification" is the use of game elements, such as points, rewards, titles, to increase motivation and engagement of customers to achieve their goals. Gamification can be used to achieve a variety of goals, such as increasing product sales, optimizing the hiring process, increasing employee productivity, and detailing customer information.

Due to the wide range of results that can be achieved with gamification, it is clear that it can be used in all areas where human engagement is important, whether it is employees or customers.

According to a study by Growth Engineering, more than 70% of Global 2000 companies have implemented gamification. The most widespread areas of gamification are retail and education. In the former, the purpose of its application is usually to increase employee engagement in work, and in the latter, to improve learning efficiency [5]. Let's consider other areas where gamification is used (Fig. 1).

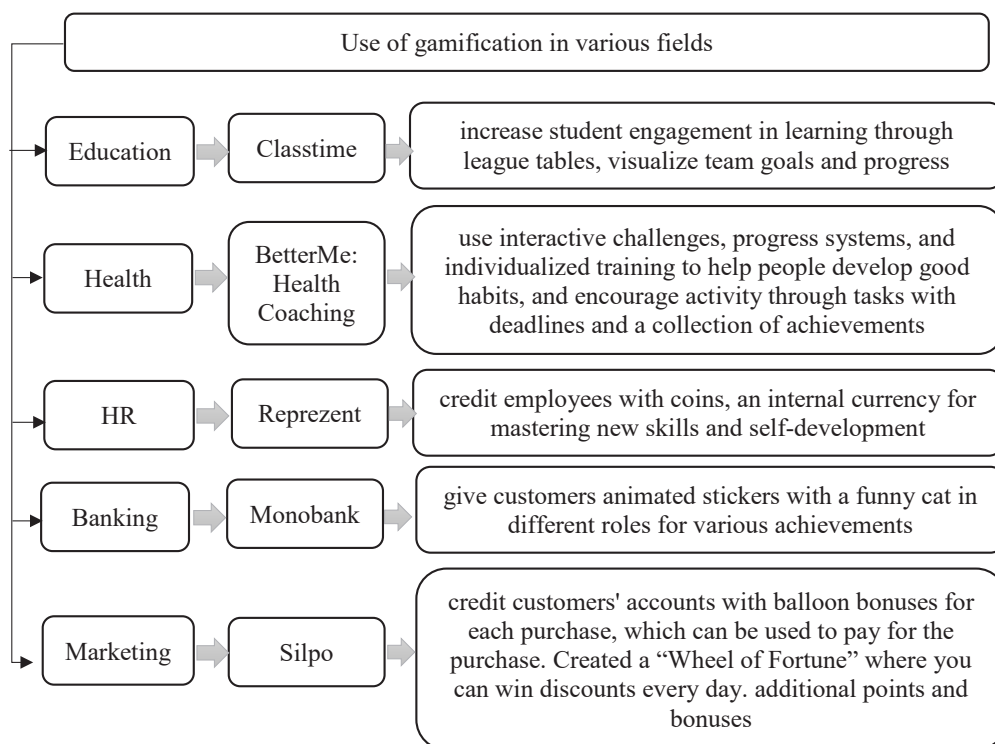


Figure 1. Examples of areas of gamification use in Ukrainian business

Source: built based on [6–12]

Before implementing gamification in your company, you need to know the goal to be achieved with this solution. Depending on the goal, there are several ways to classify gamification (Fig. 2), but the most popular is the Werbach and Hunter division, which includes three definitions [4]:

1. Internal gamification: “the use of gamification to increase productivity in an organization to promote innovation, enhance camaraderie, or otherwise generate positive business results through its own employees” [4]. That is, it is the use of gamification to improve business processes and reduce costs.

2. External gamification: “the use of gamification with customer engagement as a way to improve the relationship between companies and customers, driving increased engagement, loyalty, product identification, and higher revenues” [4]. So, it is the use of gamification to improve customer relationships and increase revenue.

3. Gamification for behavior change: “seeks to create new healthy habits among the population. This can include anything from encouraging people to make better health choices to redesigning a classroom so that children learn more while enjoying school” [4]. In other words, it is the use of gamification to motivate people to improve themselves and their environment.

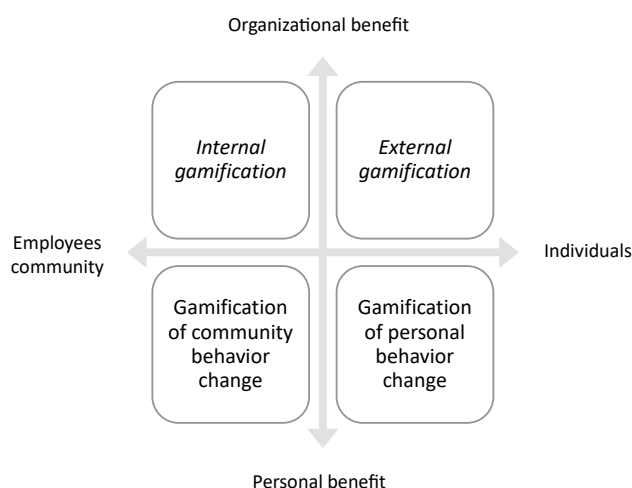
Consumer behavior change focuses on individual user habits. The goal is to engage them in repetitive actions, such as frequent purchases or exercise, through rewards, points, statuses, or ratings. In this approach, it is important to stimulate instant participation by supporting personal motivation. For example, mobile fitness apps such as BetterMe use individualized goals and feedback to motivate users to make progress [9].

Gamification to change community behavior is aimed at creating new social norms and collective interaction. This approach is used to promote sustainable development or engage people in socially important initiatives. For example, urban projects with gamification elements can encourage citizens to participate in environmental events or volunteer programs. Such tools help to build a sense of shared responsibility and achievement.

In summary, the key difference lies in the focus: consumer gamification works on individual behavior, while community gamification works on collective participation and shared values, helping to create long-term changes in the community [4].

When creating a gamification system, the following important aspects should also be taken into account [13]:

1) user actions should be relevant to your goal. If you want to increase employee productivity, the elements of the game must relate to the results of their work;



**Figure 2. Classification of the main ways of gamification**

Source: built based on [4]

2) the results of gamification should be clear to users. This requires that the components of the system be described in detail;

3) gamification should not be too simple to keep consumers engaged. If success is easy to achieve, the system will become uninteresting.

Understanding consumer behavior is important in gamification. For the best user engagement effect, there are three main techniques that are related to the human psyche (Table 1) [14].

Like any system, gamification has its advantages and disadvantages. The advantages are numerous, namely:

- increased customer engagement and loyalty;
- increased brand awareness;
- new social connections are created, which facilitates the exchange of information;
- the effectiveness of training increases;
- helps in data collection.

Although the results of gamification tend to confirm its effectiveness, there are also drawbacks. In some cases, gamification has the opposite effect: it can be counterproductive and harmful to employee well-being, so you need to carefully consider how to adapt gamification to your company's industry.

In addition, if the game is too difficult, no one will be truly motivated to participate. Conversely, if the game is too easy, people will get bored. So you need to find a balance.

Another disadvantage is that gamification technologies often face fraud or hacking problems. Therefore, it

Table 1

**Basic gamification techniques**

Gamification technique	Main features	Example of use
Game mechanics	Gamification should include points, rewards, and ratings. They will encourage the user to engage in order not to lose the opportunity to use bonuses.	BrainActs Commerce has developed a list of actions and assigned a reward for each of them in the form of points for completion. This allows you to turn boring and complex tasks into an interesting process for employees.
The presence of competition	Competition encourages people to get involved and achieve better results. It helps people to socialize.	Kyivstar holds contests and challenges among subscribers where users compete for prizes for using mobile services, such as traffic packages or discounts.
Regular updates	To keep users engaged, it is necessary to update rewards and tasks, because over time, consumers get bored.	The To Sim chain of stores updates the list of goods that can be purchased for points, the internal currency that customers accumulate with each purchase, every month.

Source: built based on [4]

is necessary to hire developers, which increases the company's expenses.

Despite the complexity and high cost of creating gamification, companies are combining it with more and more processes. Domino's Pizza has already gamified its hiring and training processes. Microsoft created a gamification to encourage team members to send feedback on the product, which resulted in a 16-fold increase in feedback. Toyota uses gamification to encourage its customers to become more energy efficient [5].

Every year, gamification is reaching a new level with the help of other technologies. For example, some companies are working on combining gamification with digital reality technologies to create a better user experience. Also, gamification has great potential if it is based on artificial intelligence. For example, Procter & Gamble used AI in its gamified recruitment process. The results exceeded forecasts, leading to a 300% increase in positive results. The trend of combining technologies such as the Internet of Things and blockchain is not avoided, the former will increase the level of user acceptance and

engagement, and the latter will create a safer and more transparent gamified experience for users [5].

**Conclusions.** The analysis of modern approaches and practical cases has confirmed that the introduction of game mechanics contributes to the growth of employee motivation and satisfaction, strengthening customer brand loyalty, and improving the overall efficiency of companies. Particular attention should be paid to the complexity of game mechanics, ensuring a balance between motivation and user interest.

Thus, gamification, integrated with the latest technologies such as artificial intelligence, blockchain, and the Internet of Things, opens up prospects for creating innovative strategies that promote sustainable development of companies in the modern digital environment. To summarize the results of the study, it is worth noting that gamification helps to increase employee productivity, customer loyalty, and overall business efficiency. Its use helps to create a modern corporate environment that quickly adapts to the constant challenges of a turbulent environment.

### References:

1. Verbivska L., & Blesko N. (2024). Gamification as an innovative approach to training and development of enterprise. *Market Infrastructure*, no. (78). DOI: <https://doi.org/10.32782/infrastructure78-20>
2. Will chatbots replace humans? No, but they'll need to learn how to work together! Sinch Engage. Available at: <https://engage.sinch.com/blog/will-chatbots-replace-humans-customer-service/>
3. Christopher C. (2011). Gamification by design: Implementing game mechanics in web and mobile apps. O'Reilly Media. Available at: [https://books.google.com.ua/books?id=Hw9XlmiVMMwC&printsec=copyright&redir\\_esc=y#v=onepage&q&f=false](https://books.google.com.ua/books?id=Hw9XlmiVMMwC&printsec=copyright&redir_esc=y#v=onepage&q&f=false)
4. Werbach Kevin, Hunter Dan (2012). For the win: How game thinking can revolutionize your business. Wharton Digital Press. Available at: [https://www.scribd.com/document/491758384/Kevin-Werbach-Dan-Hunter-For-the-Win-How-Game-Thinking-Can-Revolutionize-Your-Business-Wharton-Digital-Press-2012?language\\_settings\\_changed=English](https://www.scribd.com/document/491758384/Kevin-Werbach-Dan-Hunter-For-the-Win-How-Game-Thinking-Can-Revolutionize-Your-Business-Wharton-Digital-Press-2012?language_settings_changed=English)
5. 19 gamification trends for 2021-2025: Top stats, facts & examples. (6. д.). Growth Engineering. Available at: <https://www.growthengineering.co.uk/19-gamification-trends-for-2022-2025-top-stats-facts-examples/#market-trends>
6. Heimifikatsiia: Yak zaluchaty audytoriiu za dopomohoiu ihor - Bloh Depositphotos. Blog Depositphotos. Available at: <https://blog.depositphotos.com/ua/gejmifikatsiya-u-marketynghu.html>
7. Heimifikatsiia v biznesi: Yak hra dopomahaie zaluchaty kliientiv ta mnozhyty prybutok - Bloh pro email ta internet-marketing. (b. d.). Bloh pro email ta internet-marketing. Available at: <https://sendpulse.ua/blog/gamification-for-business-and-sales>
8. Heimifikatsiia yak zasib pidvyshchennia motyvatsii uchniv do navchannia Classtime. Available at: <https://www.classtime.com/blog/heymifikatsiya-zasib-pidvyshchennya-motyvatsiyi/>
9. Stvoriuite stiiky sposib zhyttia. BetterMe. Wellness Platform. Available at: <https://betterme.world/ua/product/healthcoaching>
10. Ukrainska Rerezent daie spivrobotnykam koyny za vyvchennia novykh skiliv. Vony tratiat yikh na svoi potreby - knyhy, yizhu abo vykhidnyi. AIN. Novyny IT i biznesu v Ukraini. AIN.ua. Available at: <https://ain.ua/ru/2019/08/12/gejifikacija-obuchenija-reprezent/>
11. Monobank - bank u telefoni. Kredyt na kartka za 2 khvylyny. (d. b.). monobank - mobilnyi bank. Available at: <https://monobank.ua/>
12. Ofitsiyni sait "Silpo". Available at: <https://silpo.ua/about/mobileapp>
13. What are gamification features. (d. b.). Spinify. Available at: <https://spinify.com/blog/gamification-features/>
14. Heimifikatsiia u biznesi: Osnovni tekhniki ta pryklady vykorystannia. Bazilik Media. Available at: <https://bazilik.media/hejmifikatsiya-u-biznesi-osnovni-tekhniki-ta-pryklady-vykorystannia/>
15. Realnyi keis: Yak vprovadyty heimifikatsiiu vnutrishnikh protsesiv i navishcho. Work.ua - sait poshuku roboty No. 1 v Ukraini. Available at: <https://www.work.ua/articles/work-in-team/2502/>
16. Kyivstar zapuskaie vlasnu hru dla abonentiv peredplaty Ofitsiyni sait kompanii "Kyivstar". Available at: <https://kyivstar.ua/news/id181020231800>
17. Tosim - Simi. Holovna - Tosim. Available at: <https://sim23.ua/to-sim/>

Стаття надійшла до редакції 03.12.2024

Стаття опублікована 21.01.2025