Gamification in management: Positive and negative aspects

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Abstract: *The phenomenon of gamification is analysed, identifying positive aspects of gamification, risks and problems. The paper adopts a method of systematic critical literature analysis in English, German, and Russian. We provide the most relevant gamification definitions classified into two main groups, fundamental and practical. The confusion of these groups or ignorance of one causes particular problems in understanding gamification. We face two levels of gamification in different areas of business management. It is the so-called meta- or macro-level and applied or micro-level. The paper aims to demonstrate the broader context of gamification in management by revealing the phenomenon's positive and negative aspects. To reach the aim, five objectives were defined: i) to show the broader context of gamification in management; ii) to reveal the problems, risks, or even negative aspects of gamification in management; iii) to appeal to the practical issues how and in what areas to use gamification; iv) to show a broader cultural and philosophical context behind the manager interpretation of gamification; v) to introduce the discourse of gamification as an integrated theoretical approach that could reveal essential aspects of management. Gamification has both positive and negative aspects in all areas of management. On the one hand, gamification increases productivity and improves service, contributes to innovative participatory thinking and action, improves internal control, coordination, communication, collaboration, and creativity, increases motivation and pleasure at work, develops the soft skills of employees and reduces costs, as well as contributes to better acclimatisation. On the other hand, gamification commercialises human relations, causes novelty effects, elicits desired behaviour and predicts job performance, transforms organisational culture in unpredictable and counterintuitive ways, results in stress and anxiety, lowers self-esteem, causes exhaustion, conflict, and incomplete knowledge, serves as a means of domination and mobbing, and finally increases free-riding and work intimidation.*

Keywords: Gamification, management, business, organisation.

JEL Classification: C70, J53.

Introduction

State of affairs, aims and originality

In recent years, gamification has developed as an important issue of management. Mainly, the positive aspects of gamification are analysed in such areas of management as organisational culture (Georgiou et al., 2019; Ivan et al., 2019), innovativeness (Deterding, 2019), sale (Clegg et al., 2018; Devisch et al., 2016), knowledge management (Kornevs et al., 2019), psychology of work (Liu et al., 2018; Shahri et al., 2019), the productivity of work (Wanick & Bui, 2019), business learning (Murawski, 2021), human resources (Yang & Li, 2021), communication in business (Wanick & Bui, 2019), health management (Karahanna et al., 2018), and security of work environment (Adams & Makramalla, 2015). However, in all mentioned cases, we can discuss gamification's advantages and disadvantages. The paper aims to demonstrate the broader context of gamification in management by revealing the phenomenon's positive and negative aspects. To reach the aim, five objectives were defined. Firstly, we seek to show the broader context of gamification in management. Secondly, we also reveal the problems, risks or even negative aspects of gamification in management. Sometimes, such a contradictory phenomenon's positive and negative aspects are inseparable. Thirdly, the paper appeals to the practical issues of how and in what areas to use gamification. Fourthly, we seek to show a broader cultural and philosophical context behind the manager's interpretation of gamification. Usually, recent research on gamification in management ignores either the cultural and philosophical context or the negative aspects of the phenomenon. Finally, we introduce the discourse of gamification as an integrated theoretical approach that could reveal crucial aspects of management. As a result, our research questions are as follows:

RQs: In what areas of management could gamification be used? What are the philosophical backgrounds of gamification? What features does gamification have in different fields of management? What are the risks and problems of gamification?

1. Definitions of gamification

Scholars present different definitions of gamification, the most relevant of which are shown in Tab. 1. We can classify the definitions into two main groups. The first group is called

fundamental since its definitions appeal to general cultural and social processes. The second group is called applied, functional, or practical definitions since they appeal to certain applied gamification functions. Usually, management practices mean the latter group of definitions, although they seem derivative. The definitions of Huizinga (1970 (1938)), Bakhtin (1984b (1965)), and Fink (1957) belong to the first group, while the other definitions mentioned in Tab. 1 belong to the second group.

Huizinga (1970 (1938)) draws attention to a very old phenomenon inseparable from culture. He believes it is a free activity with specific rules in an isolated space and time and is perceived as "false" compared to the usual environment. Bakhtin (1984a (1929), 1984b (1965)) analyses such an aspect of gamification as carnivalization that is necessary for releasing steam in the tense social life. According to him, carnivalization prevents social stagnation. It is the principle of poetic commonality, artistic worldview, heuristic attitude, and changeable cultural renewal. Like Huizinga (1970 (1938)) and Bakhtin (1984b (1965)), Fink (1957) defines gamification as the core of human existence, inseparable from spontaneity, activity, liveness, freedom, and creativity.

As mentioned, other definitions deal with practical aspects of gamification applied in management, education, politics, communication, and other spheres of human activity (Tab. 2). The most common and generally applied definition was suggested by Deterding et al. (2011). The definition of Sailer et al. (2017) is similar. These scholars define gamification as using game elements in other non-game contexts. This definition is simple and straightforward but not precise. Suppose we recognise together with Huizinga (1970 (1938)), Bakhtin (1984b (1965)), and Fink (1957) that the game is essential to human existence. In that case, the question arises concerning the non-game contexts inseparable from game contexts related to active, creative, and free human activity. Klopfer et al. (2009) try to avoid this weakness by defining gamification as the freedom to experiment and fail. Other applied definitions appeal to different aspects of human activity, including management. For example, Shpakova et al. (2017) define gamification as a knowledge medium for business communication. Frisiello et al. (2017) stress the aspect of voluntary participation in a techno-social environment. Thus, the confusion of the two mentioned groups or

Tab. 1: Definitions of gamification (G)

Type of definition	Definition	Source
Fundamental	Free activity is perceived as "false," taking place in a particularly isolated space and time according to specific rules and implementing mysterious social alliances that emphasise its unusualness compared to the rest of the world.	Huizinga (1970 (1938))
	Based on experience and free ingenuity instead of a story.	Bakhtin (1984a (1929), 1984b (1965))
	As an essential part of the constitution of human existence, G refers to spontaneous action, activity, lively impulse, freedom, and creativity.	Fink (1957)
Applied	The freedom to experiment, fail, explore multiple identities, and control one's investment and experience.	Klopfer et al. (2009)
	The use of game design elements in non-game contexts.	Deterding et al. (2011)
	The process of making activities in non-game contexts more game-like by using game design elements.	Sailer et al. (2017)
	A medium for knowledge workers to interact with each other.	Shpakova et al. (2017)
	Techno-social paradigms that leverage voluntary participation.	Frisiello et al. (2017)

Source: own

ignorance of one causes specific problems in understanding gamification.

2. Research methodology

This paper adopts a method of systematic critical literature analysis. The phenomenon of gamification was analysed, identifying three dimensions: positive aspects of gamification, risks and problems. The scholarly articles on gamification regarding the field of management in the Web of Science data platform were reviewed. We present English, German and Russian literature to address a broader international public. Gamification and closed (e.g., carnivalization) research were introduced by Huizinga (1970 (1938)) and Bakhtin (1984a (1929)) almost one hundred years ago and gradually became a popular topic in different academic circles, including management. To perform automated searches on the selected digital data platform, the search string was inserted: "gamification" AND "management." The literature was not filtered by year, all the results were studied. In total, 81 items of literature are analysed in the paper. 60 of them

are articles in the journals, 10 – are proceedings, 8 – monographs, and 3 – articles in the selections of works. 23 of them are from management/business field, 21 – from computer science/technologies, 13 – from education, 5 – from philosophy, 5 – from psychology, 5 – from cultural studies, 4 – from medical sciences, 3 – from sociology, and 2 – from media and communication studies. In some cases, it is difficult to define the research area since the issues cover some fields, such as learning in business, technologies in management, and psychology of management.

3. Areas of gamification with a focus on management

Tab. 2 shows the areas and subareas of gamification. Although management is mentioned as one of the possible areas for gamification practices, other areas also include management aspects. Epistemology covers subareas such as the acquisition of business knowledge, the scientific approach in management, and the economic worldview. Ethics is an essential

Tab. 2: Areas of gamification (G)

Area	Subareas	Source
Epistemology	Acquiring knowledge	Brasó i Rius (2018)
	Worldview	Rybka (2018)
Ethics	Value systems	Rybka (2018)
	Responsibility	Fink (1957)
	Moral orientation	Galkin (2007); Virilio (2001); Kravchenko (2008)
Politics	Manipulation of people	Rybka (2018)
	Innovations in public life	Kravchenko (2008)
Management	Marketing	Herzig et al. (2012)
	Customer service	Clegg et al. (2018)
	Management of creativity	Kačerauskas (2016)
Sociopsychology	Socialisation	Bakhtin (1984a (1929), 1984b (1965)); Huizinga (1970 (1938)); Fink (1957)
	Ability to direct aggressiveness	Kravchenko (2008)
	Cooperation	Brasó i Rius (2018)
	Protective mechanisms	Kravchenko (2008)
	Individualism and escapism	Bazhenova (2012)
Education	Self-organisation of students	Rybka (2018)
	Motivation of learning	Brasó i Rius (2018)
Communication	Student communication	Rybka (2018); Karauylbaev and Makuseva (2014)
	Marketing communication	Yılmaz and Coşkun (2016)
Creativity	Artistic skills	Rybka (2018); Pilotta (2020)
	Art understanding	Fink (1957)
Technologies	Approach to technologies	Brasó i Rius (2018)
	Studying IT	Stratonova (2016)
Health	Therapy of happiness	Fink (1957)
	Motivation to increase health	Kostenius et al. (2018)
	Sport activity	Lacroix et al. (2009)

Source: own

aspect of management that appeals to specific values, moral orientation, and responsibility. Politics could be called macro-management, as the manipulation of people could find a place in every organisation. Innovation is also an essential aspect of management that deals with both innovative management and the management of innovative products. Although management is a natural area of gamification, marketing and customer service are the most apparent subareas of gamification. What concerns creativity management, we face here two aspects. First, gamification expresses spontaneity, activity, liveness, freedom, and creativity, as mentioned before (Fink, 1957). It is the so-called macro-level, both talking about gamification and creativity. In other words, it is metagamification that we face in different situations of daily living, including management activities. The paradox is as follows: we speak of metagamification as an everyday practice. Second, gamification is relevant in a particular

activity, namely in creative work. Art is often called a play (Gadamer, 1986).

Sociopsychology covers two areas that are sometimes contradictory, i.e., the social environment and the individual world. Many tensions and diseases are the results of clashes between these two areas. Gamification helps to avoid these clashes, as well as sharpen them. In management, gamification contributes to socialisation and cooperation in a team of workers. It could also be treated as a means of natural aggressiveness and an overload of social relations. Gamification suggests a protective mechanism in a foreign work environment. On the other hand, bad results of the official game in an organisation could lead to escapism, individualism, and conflicts with the social environment.

Education is an essential element in business. Gamification contributes to more accessible business learning and motivates one to seek better results. Additionally, it is the means of self-organisation in a work team. Understanding art is an essential aspect of education in the art industry that covers creating an art piece and developing artistic skills and art management. Here, we also face two levels of gamification: meta-level (art as a game from the beginning) and applied level (gamification as an instrument for learning and understanding art).

Similarly, we are discussing an approach to technologies (macro-level) and the technologies we need to learn through gamification (micro-level). What concerns business? We face both the technologies of business and the technologies of games. In both areas, gamification plays an important role.

Finally, we can talk about gamification in health management. The game is like an island of happiness (Fink, 1957). As a result, it could be used as happiness therapy. Games with different apps at the applied level could increase motivation to increase health and achieve sports results.

In short, we face two levels of gamification in different areas of business management. It is the so-called meta- or macro-level and applied or micro-level. Sometimes these two levels complement each other, leading to tensions. In the next chapter, we analyse gamification's positive and negative aspects in management.

4. Positive aspects, risks, and problems of gamification in management

In many cases, the positive aspects of gamification are inseparable from the risks, problems, and even the negative aspects. It shows the complexity of the gamification phenomenon already demonstrated in two types of definitions. Tab. 3 shows the different sides of gamification in the management areas. In sales, gamification increases productivity and sales solutions (Herzig et al., 2012) and improves customer service (Clegg et al., 2018). However, it leads to commercialising human relations (Devisch et al., 2016), although some scholars do not treat this aspect unfavourable. In innovation and creativity, gamification is the means of innovative and participatory thinking and action and the instrument to improve internal communication (Ērgle, 2015).

Additionally, gamification helps improve products (Herranz et al., 2018). Besides this, gamification contributes to the innovation of products and processes (Deterding, 2019) and creative thinking (Redman & Mathews, 2002). However, some scholars (Algashami et al., 2019; Koivisto & Hamari, 2014) mention the novelty effect of gamification technology. It means it can be exciting for new participants but become less functional and less attractive for those with more experience.

In the organisation area, gamification changes organisational culture, including increasing sales force motivation (Kananen & Akpinar, 2015); it helps identify employees' soft skills and reduces the costs of bad hires (Georgiou et al., 2019). Gamification is essential for the identification of talents. Additionally, it increases coordination and leadership skills (Chamorro-Premuzic et al., 2017). Gamification considers employees' characteristics and needs, helps gather feedback from employees, and ensures ever-increasing effectiveness (Georgiou et al., 2019; Ivan et al., 2019). In addition, gamification reduces costs by enhancing expensive monetary incentives with cheap virtual ones (Zichermann & Cunningham, 2011). For example, the Soviet government would use the so-called "socialist" competitions between workers and symbolic awards. Finally, gamification is the means of control, information (Deterding, 2019), and a balance between meaningful goals and people's needs (Wanick & Bui, 2019). However, gamification only sometimes leads to improved practices and tools (Hamari et al., 2014; Herranz et al., 2018; Marache-Francisco & Brangier, 2015). In addition, gamification elicits desired behaviour and predicts job performance (Georgiou et al., 2019). Finally, it transforms organisational cultures (Kumar

& Raghavendran, 2015) and leads to unpredictable and counterintuitive ways of organisation (Antoni et al., 2017; Mollick & Werbach, 2015).

Speaking about the psychology of work, gamification serves for better work motivation (Kananen & Akpinar, 2015), as well as enhances employees' engagement (Kumar & Raghavendran, 2015), motivation, and job satisfaction (Liu et al., 2018; Shahri et al., 2019). Additionally, gamification helps avoid cognitive biases and direct the employee and the customer in the desired direction (Lewis et al., 2012). Play satisfies basic psychological needs such as competence, autonomy, relatedness or meaning, fuel motivation, enjoyment, and well-being (Deterding, 2019). Usually, play is accompanied by shared norms of mutual care, trust, and safety (Henricks, 2015). Gamification has motivational advantages, as gamified applications connect with the user's motivational results to drive the expected results (Wanick & Bui, 2019). Finally, gamification reduces stress, increases work pleasure (Makanawala et al., 2013), and contributes to better acclimatisation (Stevens, 2013). However, gamification results in stress and anxiety (Apter & Kerr, 1991), lowering self-esteem (Algashami et al., 2019). Sometimes, the gamification routine kills joy (Algashami et al., 2019) and decreases the self-esteem of individuals who often receive poor feedback (Algashami et al., 2017). When feedback is negative, it can reduce motivation (Algashami et al., 2017; Marlow et al., 2016; Sailer & Homner, 2020), and when competition is overemphasised, it can reduce the intrinsic motivation of the participant and generate stressors (Yang & Li, 2021). Additionally, three main characteristics of gamification (visibility of achievement, competition, and interactivity) can cause stress (privacy invasion and social overload), which can then lead to the strain called gamification exhaustion (Yang & Li, 2021). Finally, a poorly designed gamification strategy results in conflicts and low motivation (Wanick & Bui, 2019).

Gamification contributes to meaningful work experiences, learning, and developmental opportunities (Murawski, 2021). In addition, game design elements establish a self-reflective attitude toward one's behaviour through immediate feedback on learned knowledge (Petruzzi & Amicucci, 2015). Additionally, gamification contributes to recruitment and training, especially for millennials (Trees, 2015). Gamification is indispensable for educational reasons in business, as it reduces the educational gap between workers with different experiences and skills (Wanick & Bui, 2019). However, gamification results in incomplete knowledge (Rybka, 2018) in business learning, like in other areas of education.

In knowledge management, gamification increases the complexity of the procurement process and motivates employees to obtain and apply new knowledge (Kornevs et al., 2019). In addition, gamification includes knowledge creation and increases motivation to deal with specific topics (Stadnicka & Deif, 2019). Finally, it helps to improve the quality of knowledge sharing and contributes to cooperative behaviour (Araujo & Pestana, 2017). However, knowledge management, including one with gamification elements, can become the means of control and dominance (Brasó i Rius, 2018).

Gamification enables one to participate in corporate decisions and processes and develop individual creative and intellectual skills when discussing the working process and productivity. In addition, gamification leads to higher acceptance of human resource practices (Jain & Dutta, 2019) and allows frequent feedback, social learning, and teamwork in organisations. Additionally, gamification helps to welcome young people and promotes knowledge exchange between experienced employees and young colleagues (Trees, 2015), and improves training results (Armstrong & Landers, 2018; Jorge & Sutton, 2017; Stadnicka & Deif, 2019). Finally, gamification makes the workplace fun (Jorge & Sutton, 2017) and improves workers' productivity (Wanick & Bui, 2019). However, gamification can increase free-riding, work intimidation, and lack of group cohesion (Shahri et al., 2014). In addition, gamification can meet minimum requirements, performance misjudgments, clustering groups, counterproductive comparison, negative pressure, anchoring bias, bribe for exchange, deviation from goal, and lack of engagement. Additionally, gamification can reduce task quality and increase exploitation (Algashami et al., 2019). In addition to this, performance transparency can trigger pressure and counterproductive comparison (Algashami et al., 2017).

Speaking about the security of the work environment, gamification can increase cybersecurity (Adams & Makramalla, 2015) but develop a dependence on games (Kochetkov, 2016).

Gamification improves talent acquisition (Buil et al., 2019; Georgiou et al., 2019) but dehumanises human relations (Kravchenko, 2008). Speaking about the social environment of management, games might foster civic engagement and active citizenship to crowdsource real-world problems (Frisiello et al., 2017). However, gamification can produce social loafing through collective performance measures (Kumar & Raghavendran, 2015), infringe autonomy (Algashami et al., 2019: 24), and increase the lack of group coherence (Algashami et al., 2019). Furthermore, competition and interactivity through gamification can lead to privacy invasion and social overload (Yang & Li, 2021), while the social media element can lead to gamification exhaustion.

In health management, gamification improves motivation for health care (Karahanna et al., 2018) due to individual physical activity (Bock et al., 2019; Harris, 2019). In addition, gamification contributes to successfully treating chronic diseases (Allam et al., 2015; AlMarshedi et al., 2016; Cechetti et al., 2019), weight management, and behaviour change (Chung et al., 2017; Lee & Cho, 2017). Therefore, gamification design is an effective way for healthcare organisations to change the health management behaviours of individuals and improve health management performance (Yang & Li, 2021). However, we also face privacy invasion, social overload, and users' gamification exhaustion (Yang & Li, 2021). Similarly, the design of gamification health management systems can also cause stress and strain (Yang & Li, 2021).

Regarding communication and collaboration in organisations, scholars note that gamification

Tab. 3: Positive aspects and risks of gamification (G) in management – Part 1

Area	Positive aspects of G	Risks and problems
Sale	G increases productivity and improves service.	G commercialises human relations.
Innovativeness, creativity	G contributes to innovative, participatory thinking and action, improves internal communication and creativity, and contributes to the innovation of products and processes.	G causes novelty effect.
Organisation	G changes organisational aspects and increases motivation; develops the soft skills of the employees and reduces costs; identifies the talents and increases coordination and leadership skills; considers the employees' needs; helps to gather feedback from the employees, reduces costs by using incentives; helps to control and gather information; provides a balance between meaningful goals and the needs of people.	G does not automatically lead to improved practices and tools; elicits desired behaviour and predicts job performance; transforms organisational cultures in unpredictable and counterintuitive ways.
Psychological aspects of work	G improves work motivation and job satisfaction, as well as enhances employee engagement; helps avoid cognitive biases and direct the employee and customer in the desired direction; satisfies basic psychological needs such as competence, autonomy, relatedness or meaning, which fuel motivation, enjoyment, and well-being; presupposes shared norms of mutual care, trust, and safety; tends to connect with the motivational results of the user to drive expected results; reduces stress and increases pleasure at work; contributes to better acclimatisation.	G results in stress and anxiety; lowers self-esteem; kills joy at work; declines self-esteem of individuals with poor feedback; reduces their motivation and intrinsic motivation, as well generates stressors; visibility of achievement, competition, and interactivity can result in G exhaustion; not well-designed G strategy results in conflicts and low motivation.
Business learning	G contributes to meaningful work experiences, learning, and development opportunities; ensures immediate feedback and establishes a self-reflective attitude; contributes to recruitment and training; reduces "the educational gap."	G causes a risk of fragmentation of knowledge.

Tab. 3:	Positive aspects and risks of gamification (G) in management – Part 2	
Area	**Positive aspects of G**	**Risks and problems**
Knowledge management	G increases the complexity of the procurement process; motivates employees to obtain and apply new knowledge; includes knowledge creation and increases motivation to deal with specific topics; helps improve the quality of knowledge sharing and cooperative behaviour.	G causes a risk to turn knowledge management with G into a means of control, domination, and mobbing.
Work process, productivity	G enables participation in corporate decisions and processes, developing creative skills; leads to greater acceptance of human resource practices; allows frequent feedback, social learning, and teamwork in organisations; helps in Millennials and promote knowledge exchange; improves training results, makes the workplace more fun, and improves worker productivity.	G results in a risk to increase free-riding, work intimidation, and lack of group cohesion; G meets the minimum requirements, performance misjudgements, clustering groups, counterproductive comparison, negative pressure, anchoring bias, bribe for exchange, deviation from goal, lack of engagement; G can reduce task quality, increase exploitation, trigger pressure, and counterproductive comparison.
Security of work environment	G increases cybersecurity.	G results in the dependence on games.
Human resources	G improves talent acquisition.	G leads to the dehumanisation of human relations.
Social aspects	Games might foster civic engagement and active citizenship to crowdsource real-world problems.	G causes a risk of social loafing, infringing autonomy, lack of group coherence; G can produce social loafing through collective performance measures; G can lead to privacy invasion, social overload, and G exhaustion.
Health management	G can improve motivation for health management; as a result, individual physical activity and successful treatment of chronic disease; G helps to manage weight and change behaviour.	G may cause invasion of privacy, social overload, stress, strain, and exhaustion even in health management.
Communication, collaboration	G contributes to the collaboration of workers.	G results in possible intimidation, clustering within teams and separation of high-performance team members.
Legal and ethical aspects	G contributes to ethical and legal education.	G leads to ethical/legal concerns and quandaries of G; negative ethical connotations of G that may crowd out the moral concerns.

Source: own

contributes to worker collaboration (Wanick & Bui, 2019). However, leaderboards can lead to intimidation and clustering within teams and the separation of high-performance team members (Algashami et al., 2017).

Gamification can improve ethical and legal education (Yuratich, 2021; Zakaria et al., 2020). On the other hand, gamification causes ethical/legal concerns and quandaries (Kumar, 2013; Walz & Deterding, 2015) and negative connotations (Algashami et al., 2019).

The generalisation of the discourses mentioned above is presented in Tab. 3. It shows that the results are contradictory in many cases because of the complex phenomenon of gamification. In the practical field of gamification as management, we can see that the positive sides are inseparable from the negative

aspects. As a result, the risks should be weighed in every case. Besides, Tab. 3 shows that the issues of gamification in management lead beyond the particular questions of management towards relevant issues of law, ethics, and social being.

Conclusions and discussion

Even by analysing such a particular topic as gamification in management, we should pay attention to the broader cultural and philosophical context of gamification presented by recognised authors since the 1920-ties. Gamification has both positive and negative aspects in all areas of management. On the one hand, gamification increases productivity and improves service, contributes to innovative, participatory thinking and action, improves internal control, coordination, communication, collaboration, and creativity, increases motivation, develops the soft skills of employees and reduces the costs, improves work motivation and job satisfaction, reduces stress, and increases pleasure at work, contributes to better acclimatisation. Additionally, gamification contributes to business learning, allows frequent feedback, social learning, and teamwork in organisations, increases cybersecurity, and improves talent acquisition. Finally, gamification can improve health management, individual physical activity, and the successful treatment of chronic diseases. On the other hand, gamification commercialises human relations, causes novelty effect, elicits desired behaviour and predicts job performance, transforms organisational cultures in unpredictable and counterintuitive ways, results in stress, and anxiety, lowers self-esteem, exhaustion, and even conflicts, causes incomplete knowledge, becomes the means of domination and mobbing, increases free-riding, work intimidation, lack of group cohesion. Finally, gamification raises ethical/legal concerns and quandaries.

The results lead to a broader context of gamification in management. The problems or even negative aspects of gamification in management are shown not to avoid gamification but to consider the possible risks. The results show that the positive and negative aspects are inseparable in such a contradictory phenomenon as gamification. The results also show a large number of areas that could be applied to gamification in management. The results also show a broader cultural and philosophical context behind the manager's interpretation of gamification. As a result, both the cultural and philosophical context and the negative aspects of gamification should be addressed. The results open the discourse of gamification as an original integral theoretical approach for further investigations in management.

Our findings would be slightly different, considering other not-mentioned books and research articles from other databases such as Scopus or EBSCO. In this case, we would show more contexts and aspects of gamification in management. On the one hand, these databases cover each other part, as mentioned. On the other hand, we faced certain aspects that repeat even by using the WoS data platform and appealing to the mentioned authors. It shows that we have reached a saturation point. We can wait for no essential changes after collecting additional data.

For further research, the case studies of gamification in management could be analysed to confirm and extend these findings.

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