
Gamification - Use in Tourism Business Management

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Wojciech Pizło¹, Anna Mazurkiewicz-Pizło²

Abstract:

Purpose: The paper discusses the essence of gamification, defined by Detering, Hamari, Houtari and Harman, among others, both as a pragmatic approach that responds to business expectations.

Design/Methodology/Approach: The paper undertakes the following research objectives: (1) to identify gamification as a method that enables the use of game mechanisms for social and business purposes, (2) to build a relationship model based on gamification for business purposes, and (3) implementation of gamification in energy saving management.

Findings: Gamification design models were discussed, including Schell's model, the Mechanics-Dynamics-Aesthetics (MDA) model, the User Centered Design (UCD) model and the Huotari-Hamari model. A new model was proposed that integrates traditional concepts of motivation and well-being (Self-Determination Theory) and the UCD model.

Practical Implications: The 21st century is characterized by rapid development new technologies, and social changes associated with new expectations of the business. Moreover, climate change and the war in Ukraine, which has caused an energy imbalance in Europe, have created the need for energy conservation. All these factors have led to the search for new solutions in business-society relations. Gamification can be a response to new expectations from the market. New technologies have made it possible to use game mechanisms in contexts unrelated to them. The main objective of this study was to extend and expand gamification as an interdisciplinary method used in various areas of the humanities and social sciences, especially in business. In addition, we assess the feasibility of using gamification in household energy management.

Originality/value: This model extends gamification theory by indicating that users need more active participation in the gamification process. This is illustrated using the example of travel agency and hotel management.

Keywords: Gamification, management, new technologies, participation model, tourism, hotel.

JEL classification: Z30, Z31, Z32.

Paper Type: Research study.

¹Institute of Management, Warsaw University of Life Sciences, Warsaw, Poland;
wojciech_pizlo@sggw.edu.pl;

²Corresponding author, Department of Management, Organizing and Economics, Józef Piłsudski University of Physical Education in Warsaw, anna.mazurkiewiczpizlo@awf.edu.pl;

1. Introduction

The idea of using games as a tool for solving problems and engaging people to achieve various goals has been used for hundreds of years. In the past, these were mainly strategic war games that exercised the mind in planning military operations.

Nowadays, supported by mathematical tools, they have evolved into the game theory (Myerson, 2011), which is, *inter alia*, a tool for the interpretation of human behavior, as was in the case of the search for answers about the effectiveness of managing common-pool resources (Ostrom, 1990) and the theory of cooperative behaviors (Ostrom 1990; Deterding 2011).

Another area of research regarding games involves recognizing their role in shaping the culture of a given community. In the 1930s, Johan Huizinga studied the influence of play on the development of various cultures. This author introduced the concept of 'homo ludens' - literally, 'man the player' (Huizinga, 1955). Huizinga defined play as "a free activity standing quite consciously outside 'ordinary' life as being 'not serious,' but at the same time absorbing the player intensely and utterly" (Huizinga, 1955) and saw it as factor underlying the creation of culture and civilization.

Games are an area of defined freedom, as there is a space of choice in which the pleasure and experience of players dominate over the pursuit of results. The player experiences the game by taking independent actions (Ryan *et al.*, 2006) and derives pleasure, emotions and gambling experiences (Huotari and Hamari 2012).

These features of gamification can be used in various areas of social life to educate, motivate or increase the attractiveness of taking action. Studies confirm that gamification can also be used in areas related to energy efficiency such as environmental education, consumption awareness and pro-environmental behavior (Morganti *et al.*, 2017).

2. Materials and Methods

The main purpose of this study was to expand and extend gamification as an interdisciplinary method used in various areas of the humanities and social sciences, in particular in business. In addition, we evaluate the possibility of the use of gamification in household energy management.

The paper addresses the following research objectives: (1) investigation of gamification as a method that allows for the use of game mechanism for social and business purposes, (2) building a gamification-based relationship model for business purposes, and (3) implementation of gamification in energy saving management. No research hypotheses were formulated in this study, because the intention was an open approach based on the methodology of grounded theory.

The use of grounded theory as a research approach is adopted when there are no scientific responses to significant social phenomena, or the responses are partial. This theory is an example of the inductive approach involving both enumerative induction and eliminative induction (observation under changing conditions). The concept 'emerges' from the data and is then illustrated with characteristic examples.

This approach to building an inductive theory uses various methods of qualitative research. It should be pointed out that the reason for the creation of grounded theory was the lack of the following possibilities in the methodological approach in social sciences:

- (1) predicting and explaining social behavior,
- (2) using methodological tools useful in the theoretical development of science (sociology),
- (3) practical application of research methods for prediction enabling the researcher to understand social phenomena,
- (4) certainty of the adopted perspective of behavior in relation to information,
- (5) conducting and interpreting research. Building a theory based on the methodology of grounded theory should involve a process of mutual interpenetration of description and verification.

The creators of grounded theory recognize that the source of an important theory is the "sensitive" insight of the observer. The role of the researcher is, in this approach, to equate what is considered theoretically probable with what can be obtained from empirical (qualitative) research.

This study involved a literature review, which focused on to date research on gamification. The analysis covered publications in scientific journals published in English available in Elsevier and SpringerLine databases. Scientific, peer-reviewed articles published in 2010-2021 were searched for by querying the quantitative distribution of articles and the declared research issues.

The review focused on publications containing the term "gamification" as keyword. In Elsevier, publications on gamification in this database concerned the following scientific disciplines: Social Science (745 publications), Computer Science (711) and Medicine and Dentistry (490). Business, Management and Accounting (347), Psychology (369) and Engineering (270 publications) took further positions.

In other disciplines, the problem of gamification was marginally represented. In SpringerLine database with a slightly different, but comparable, division of disciplines, publications on gamification were available mainly in the areas of Computer Science (438 publications), Medicine and Public Health (293), Education (213) and Business and Management (137 publications).

3. Gamification – Review of Concepts and Applications

3.1 Concept of Gamification

The time of the pandemic, besides its tragic consequences, resulted in an increase in the ability to use IT tools in many areas e.g., administration, education and business. There has also been an increase in the use of electronic games, which allow for the escape from loneliness and provide the possibility to make social contacts with other players.

The development of consumer skills and the fast growing gaming market foster the increased expectations of players as regards aesthetics, storyline and multithreaded solutions - the key components ensuring game quality.

Originally, gamification was seen through the prism of digital games. It was emphasized that the essence of gamification is fun and interaction (Caroll, 1982). The literature defines gamification as "the use of game design elements in non-game contexts" (Deterding, 2011) but although this term is intended to refer to various applications, not directly focused on entertainment, the element of fun is still desirable as well as playful interactions and design with the joy of creating.

For Deterding gamification is a skilful design strategy involving the application of game elements in contexts not related to games in order to change the behavior of individuals (Larson, 2020). Deterding and the researchers cooperating with him define the game through the mechanisms it is based on (Hamari, 2013). The object of interest is the effectiveness of supplementing non-game services with game mechanisms that change their functionality and often the context of use.

Gamification is also seen as a concept of both scientific and practical value, especially taking into account the expectations of business practitioners. The literature indicates that gamification is still an interesting and potentially fruitful topic of scientific research (Harman *et al.*, 2014). It is a technique that uses the goals and rules of a game (including game design techniques) to induce various people or teams to act or react in an expected way, learn something or solve specific problems of the organization.

This concept is also equated with the specific approach to design used in various areas of management and as a management concept it includes all the procedures related to the creation and transfer of rules to other areas of the organization. In this way, it combines the concepts of traditional games, electronic games and other games dealing with change into a coherent system using the achievements of social sciences, in particular economic sociology and behavioral economics (Zhang *et al.*, 2020).

Gamification is also defined as "a process of enhancing a service with affordances for gameful experiences in order to support users' value creation." (Huotari and Hamari, 2017, 21-31). The authors of this definition also emphasize that "the goal of gamification is the experiences that it attempts to give rise to – rather than the methods".

The authors propose that the definition of gamification should be understood more broadly as the process in which the player increases the probability of the emergence of experiences (Huotari and Hamari, 2017). Therefore the term focuses on two aspects: (1) design - when the question is how to design an interaction to make it usable "in non-game contexts" and (2) user experiences deriving from the designed interaction.

This concept is also referred to as the process of thinking in terms of game and game mechanics which are supposed to engage users and motivate them to solve problems (Zichermann and Cunningham, 2011). According to Burke and Gamify (2014) "Gamification is the use of game mechanics and experience design to digitally engage and motivate people to achieve their goals". It is also presented as a social game instrument implemented to achieve a goal set by the organization by engaging and influencing the behavior of employees / consumers / students (Xi and Hamari, 2019).

Gamification is seen as a method of digital engagement, not just personal engagement, which means that players interact with digital devices and the aim of the actions taken is to motivate people to change their behavior or develop skills, and to increase innovation. "Gamification focuses on enabling players to achieve their goals and as a consequence the organization achieves its goals" (Burke and Gamify, 2014).

The purpose of this method is to use digital techniques taken from games and to encourage project participants to undertake activities defined by the organizer. The method of gamification activates two parallel psychological processes increasing the perception of innovation, novelty or other relevant information "by increasing consumer playfulness, which stimulates curiosity about the innovation, and by enhancing the perceived vividness of information presentation, which increases the perceived advantage of the innovation relative to (less innovative) competing products" (Huotari and Hamari, 2017). The project may involve consumers, employees, interns (students) or other stakeholders of the organization.

The main stages of designing a gamification project include (Landers, 2014): (1) determining the goal of gamification, (2) identifying characteristics of people participating in the project and (3) defining the expected behaviors of participants as individual "players" and the entire community, (4) developing rules (mechanics) of the game and their verification and (5) implementing the project. Gamification

system requires composing instruments that are attractive for users and facilitate their participation.

Gamification is an important tool for modern business with great potential to provide benefits for companies (Larson, 2020). It indicates future trends, e.g., relating to sustainable marketing (Whittaker, 2021), and facilitates business success through creating precisely designed experience for employees and consumers in accordance with the organization's goals.

3.2 Gamification in Social Contexts

In the 2020s, the number of downloads of applications covering a variety of services have increased considerably. The method of gamification has been used to raise awareness of many social and economic problems. For example, the effectiveness of gamification was examined in the case of the EcoIsland project, a persuasive application for motivating users to reduce CO2 emissions (Liu *et al.*, 2011).

Gamification was also used as a method increasing the effectiveness of teaching in higher education (Sailer and Sailer, 2021). This method contributes both to the identification of learning processes that are correlated with the desired outcomes and allows for the implementation of game techniques that have a positive impact on this process.

A special feature of gamification is the feedback loop at the task level (e.g., in the form of a quiz and a leaderboard), which may improve the efficiency of the learning process (Sailer and Sailer 2021). However, some researchers point to possible threats to the use of game design elements (e.g., leaderboards) in educational context (Toda *et al.*, 2018).

Gamification is also widely used by various service providers, in particular the banking sector (Cechella, 2021), travel websites (Kawanaka *et al.*, 2020) and tourism taking advantage of advanced geocaching programs (www.geocaching.com).

Geocaching is an outdoor treasure hunting involving the use of GPS devices. Another example of gamification is the field game PokémonGo (<https://www.pokemongo.com>). In this game, players catch and fight Pokémon while moving in the real world augmented with virtual reality.

This game was not originally designed for tourism, but is now used for those travel purposes. Geocaching works with local tourism organizations to create special treasure hunt tours and works with PokémonGO partners to develop innovative social activities in the real world. Service providers, wishing to strengthen their bond with consumers, invest in the gamification of their services, especially in the tourism and fitness industry (Feng *et al.*, 2020; Adamopoulos and Thalassinou, 2020).

In some applications, consumers are motivated by rewards such as points and badges scored for physical effort (<https://fitocracy.com>) vitality added to the virtual plants grown by the user or consumers' favorite game characters are used which turn physical activity into the actions of a virtual hero fighting in battles (e.g., in Shikudo applications - Walking and Focus Games).

3.3 Gamification and Motivation

Research on motivation in the case of services using innovative technologies comes from various areas of social science. The publications indicate two different driving forces that stimulate user action - extrinsic motivation and intrinsic motivation (Feng et al. 2020). Extrinsic motivation is driven by external rewards, it involves readiness to succumb to the influence of the external environment inducing certain behavior.

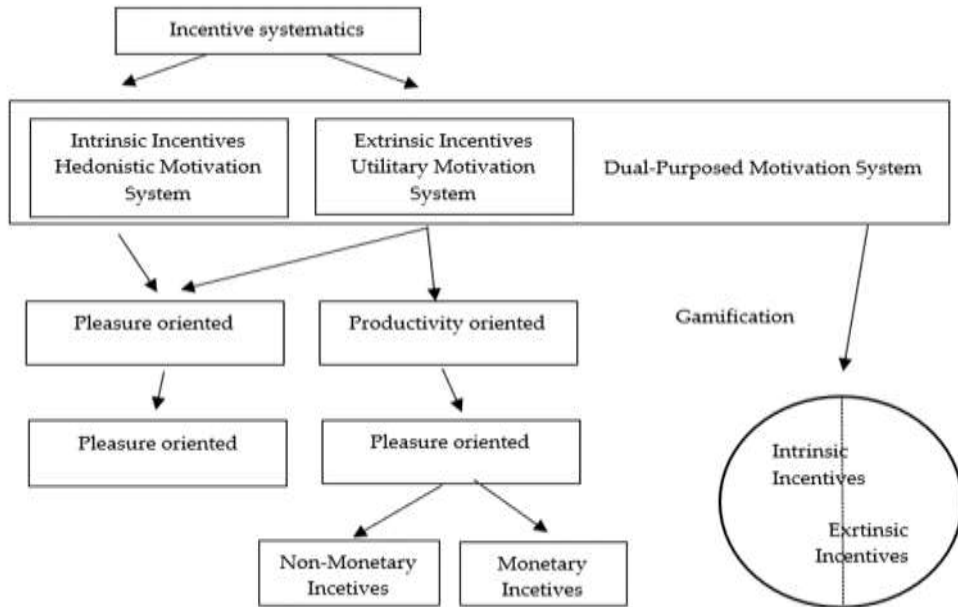
Consumers driven by external stimuli, including promotion, recommendations and persuasion, are encouraged to behave in an expected way, which plays an instrumental role serving a mercantile goal. In turn, intrinsic motivation is driven by personal rewards like the desire to learn, gain prestige, have fun, stand out, dominate others, prove oneself, etc.

Internal forces induce behavior in order to satisfy individual psychological needs. The intrinsic motivation is the strongest drive, characterized as a natural human tendency to assimilate, achieve mastery, follow spontaneous interest and explore (Ryan and Deci, 2020; Feng *et al.*, 2020).

The motivation systems focus, on the one hand - on pleasure and, on the other hand - on productivity. Gamification as a method supports the transition from the organization systems mainly focused on efficiency to systems providing solutions based on generating pleasure (Hamari, 2013). New technologies have the potential to build intrinsic motivation by combining human hedonistic systems (Figure 1).

Research on gamification in the context of tourism (focus study on a group of students) has shown that the factors that motivate tourists to play tourist mobile games include (Xu, 2013), curiosity to try a new type of game, enjoying sightseeing and collecting information about the visited place, experiencing the virtual world, sharing experiences with local people and other tourists, enjoying learning new things, achieving new goals.

The indicated factors are characteristic of the intrinsic motivation. The intrinsic motivation presented by Ryan and Deci results from the needs of competence and autonomy. The authors argue that it is shaped by social events such as feedback, communication and rewards that foster the sense of competence during action and can increase intrinsic motivation (Ryan and Deci, 2020). An important motivation boosting factor in the case of gamified services is the ability to compete and get a better score than other players.

Figure 1. Motivation System According to Zaubmülle

Source: Zaubmüller, 2005.

This creates an activity similar to social games, providing the pleasure of participation alongside the pleasure of success. It should be noted that user engagement depends on the type of motivation. In the case of intrinsic motivation, activity is defined as a pleasant experience. In the case of extrinsic motivation, more emphasis is placed on rewards; the participants of the game are motivated to perform various tasks in return for reward (Zhu *et al.*, 2017).

The effectiveness of gamification is increased by the points and badge systems, although the novelty effect is usually not permanent and does not increase consumer engagement in the long run. However, the gamification of services in various business areas can increase user engagement by increasing user pleasure.

To date research has not confirmed that the mere implementation of game functions leads to an increase in user activity and to an increase in quality or social interaction in the case of commercial services. The unsatisfactory results in this respect are explained by the user low engagement (Hamari, 2013) in response to received benefits, (in this case badges), which confirm the status in of the player and the erroneous assumption that the users of the portal, who previously used mainly commercial functions, were used to gaming functions.

The gamification of universal services is effective when the service contains a storyline and game mechanisms that take on a hedonistic character or if the service itself resembles a game (Hamari, 2013). In the case of gamification and badges

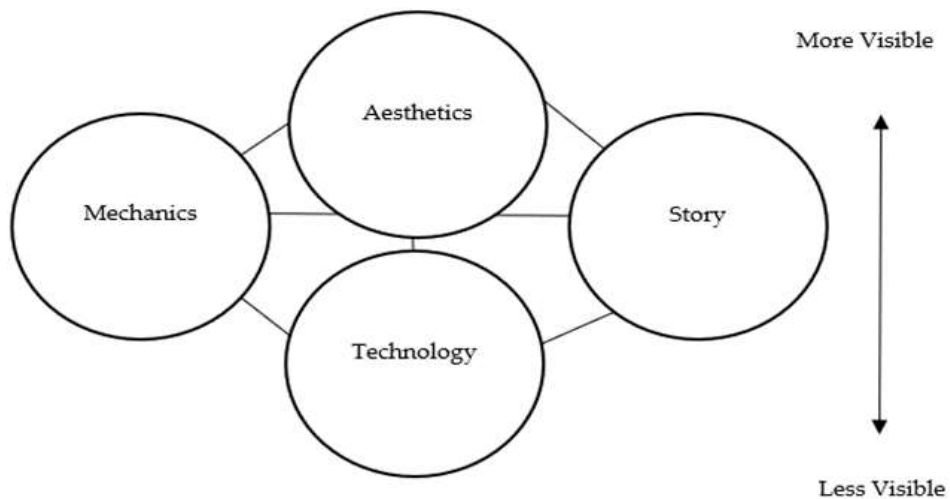
gained for user activity, research shows that the tendency to be active depends on the length of the relationship with the service. Badges are reputation indicators and rewards. They remain in the users' profile as an indicator of their activity. The lower the user's activity, the less likely they are to engage in the game options.

4. Models of Gamification Design Focused on User Needs

One of the first models for game or gamification design is the Schell model (Schell, 2008). This model (Figure 2) is built of non-linearly consecutive elements: *Mechanics consisting of procedures and gamification rules. In this part of the game, the institutions are specified (rules of participation, rewards for observing the rules and penal-ties).

Another element of the model is the *Story. Story allows not only to define the sequence of events, but also to imagine what may be pleasant or unpleasant for the player. Story may be linear or multithreaded and have one or many possible endings. Story also navigates the game towards a particular *Aesthetics. Aesthetics stimulates imagination and brings about user's emotions: joy, sadness, worries etc. Aesthetics appeals to personal experiences of both game players and gamified service users.

Figure 2. Game Design Model by Schell 2008.



Source: Schell, 2008, pp. 41.

The functional gamification system consists in of (Zichermann and Cunningham, 2011, pp. 44-71):

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- Introduction - necessary to recognize the game system: rules, payments, costs and procedures. The created system must be simple so that the user can start completing individual tasks from the very beginning.
 - Point system - the main and necessary element of the "payment" for participation and expected activity in the game. The payment system is an indispensable element of all systems based on competition. The transparency of the payment system is to show the progress of individual players and motivate them to continue competition. In gamification design, it is possible to construct reward systems known from computer games involving the account balance, health points, reputation and other forms of payments.
 - Game levels - it is important for the players to be able to define the degree of advancement of their participation as well as to be able to define their level of engagement. The level of user activity should be correlated with the possibilities of scoring points, new opportunities that players gain, etc.
 - Making the results public - allows the players to compare their achievements, which is to motivate the user of gamified services to be more active. Additional incentives, apart from points include badges and trophies, encouraging the promotion of individual and group achievements. Granting "achievement" marks the end of a certain stage of activity, which can be motivating or demotivating if several teams are competing against each other. Competition for custom rewards can be an additional source of fun;
 - Tasks - that determine a goal that ultimately must be accomplished, the sequence of tasks and their difficulty depends on the essence of the goal and the capabilities of the participants involved in the game. Partial tasks that make up a whole may provide the participants with additional experiences. The difficulty of the tasks must be adjusted to the abilities of participants or teams. Successes, failures and the conclusions that can be drawn from them constitute additional value for the users of "gamified" services.
 - The engagement loop is designed to stimulate users' engagement and the motivation to repeatedly use the gamified service. The engagement loop will be effective when the game evokes positive emotions, motivating people to be active.

A different approach to gamification design is the Mechanics-Dynamics-Aesthetics (MDA Model), which divides game systems into the following parts: Mechanics, Dynamics and Aesthetics (Hunicke *et al.*, 2004). These parts constitute a functional structure, creating additional value, which is a game play and enhancement of the experience of the participant (Xu *et al.*, 2013). The foundation of gamification design is the game Mechanics, which describes the individual elements, at the level of data and algorithms, and consists of: achievements, collections and badges.

Dynamics, on the other hand, describes how the Mechanics operates when the player plays the game. The Dynamics of gamification includes, among others, the freedom to choose the elements of the game, the possibility of moving to a higher level, the mode of teamwork and the mode of competition with other players (Xu *et al.*, 2017). In advanced gamified services the user can compete with other users and this is part of the achieved experience.

Mechanics and Dynamics create a visual experience which constitutes the game's Aesthetics. Aesthetics is the sum of the player's emotional reactions related to participation in the game and interactions with game elements (Walk *et al.*, 2017). Aesthetics as an element of the model is perceived as a component of emotional reactions (emotions, fun, fantasies, etc.) of the user. The MDA model has been criticized mainly because of the lack of framework on narrative design (Walk *et al.*, 2017) and the linear character of design.

An important set of recommendations for the design of human-computer interaction systems is the User Centered Design (UCD) (Gausepohl *et al.*, 2016), which takes into account the expectations of the game participant and the gamification designer. Designing gamification is often described in the literature as a 'user-oriented process', because it should focus on improving usability and reducing possible errors.

The User-Centered Design is a design structure that consists of the following non-linearly considered elements: understanding and defining the context of using the game, de-fining specific user requirements, creating design solutions, determining the compatibility of proposed solutions and user requirements (ISO 9241-210).

A UCD cycle can be considered completed when the design solution addresses the specific (identified) and implemented user requirements. An important element of UCD is the context of usage, which in the literature is defined as the user description/characteristics, the physical and social environment in which the game takes place and the devices used by the user (ISO 13407).

It is pointed out that the context of playing the game is critical to understanding the design, as different contexts result in different usability requirements. The application of UCD may result in the increase in the interest in gamified service if the needs and desires of the user are taken into account and correctly identified.

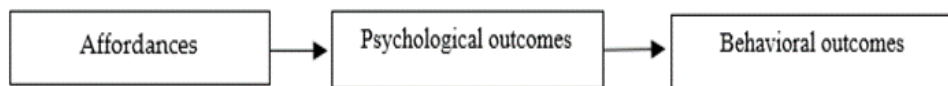
The users of gamified services can be divided into people looking for a utilitarian and educational function and people looking for hedonistic values like fun, entertainment, pleasure, ecstasy, fantasy and sensory simulations. Searching for new innovative tools is supported by the theory of positive psychology, showing the benefits deriving from the impact of technology fostering positive experiences (affective quality) and engagement (Peters *et al.*, 2018).

An alternative model describing the principles of gamification design is the model based on functional elements: Design, Dynamics and Experience (DDE). Gamification design should be based on Affordances (Figure 3). This means that the user has the possibility, and not the compulsion, to take specific actions.

The second important element of the model are Psychological Outcomes, which consist of psychological effects and experiences that the participants acquire as they engage in the game. The effects of interactions with the gamified service at this stage include the sense of success in achieving the goal, competence, a sense of belonging to a community and creativity (Huotari and Hamari, 2017).

The third component of the model are Behavioral Outcomes directly relating to the goals of the organization providing the gamified service, which are achieved by generating the expected user actions or behaviors (Figure 3).

Figure 3. Concept of Gamification by Huotari and Hamari, 2017.



Source: Huotari and Hamari, 2017, 21-31.

5. Gamification Design Model, Extended UCD Approach

During our literature review, we were searching for a new perspective of looking at the current achievements in the field of gamification modeling. We were looking for a model that would combine rational solutions of previous theoretical concepts. In reference to the theoretical achievements of researchers dealing with gamification, We have developed a model of designing and developing gamification as a method of social and individual interaction.

This model takes into account: the Self-Determination Theory (SDT) approach, emphasizing that people naturally strive to satisfy three basic needs: autonomy, competence and relatedness. Gamification design for business purposes based on SDT, as proposed by the literature, identifies the following steps of player experience design process (Burke and Gamify, 2014): (1) defining business outcomes and success metrics; (2) identifying potential user; (3) setting player goals; (4) designing engagement model and (5) play space and journey; (6) testing the system; (7) repeating the steps to check the effects.

With reference to the Self-Determination Theory the benefits from human-computer interaction designs are mediated by the following user needs: (1) autonomy, understood as a sense of agency and acting in accordance with one's own goals and values, (2) competence, meaning feeling able and effective, and (3) relatedness understood as feeling connected to the others and a sense of belonging (Peters *et al.*,

2018). The indicated factors constitute a minimally defined common denominator of the realized needs. This theory interprets the relationship between the design features and the well-being of the user.

The assumptions of this theory are used in creating "personalities" of digital trainers. Researchers also indicate that in the SDT theory, basic psychological needs are satisfied when: they "are inherently rewarding/motivational; when satisfied lead to flourishing; when frustrated lead to negative experience; function across diverse cultures and developmental stages" (Peters *et al.*, 2018).

It should also be pointed out that users of gamified services should, to some extent, co-create them, as it is done in the case of some electronic games. The effectiveness of gamification increases when it is an open process which allows for modifications in accordance with the adopted rules (within the limits set by the purpose of the gamification). Thanks to the possibility of modifying some parts of the gamified service, the position of users is strengthened, as perhaps in the case of games designed by players (Garcia and de Almeida Neris, 2020).

This model also refers to the marketing perception of user needs (UCD), which should be satisfied in the long term perspective (in accordance with the recommendations of social marketing) by providing gamified service user with individually and socially desirable knowledge and engaging experiences.

An important innovation in designing and modifying gamification resulting from the experience of game producers and users is the method based on the UCD concept - End-User Development (EUD). An important assumption of this participatory model of gamification design is freedom-giving approach (limited by the purpose of gamification).

The stimulated creativity of users should increase their engagement and motivate them to share their solutions, which in turn may bring benefits to the entire community. In the case of some games, it is possible for game participants to modify them by playing and cooperating like children do (Barricelli *et al.*, 2019) learning not only to code, but by recognizing and interpreting the environment (Dufva and Dufva, 2016). The same may happen in the case of gamified service users, if they are given the opportunity to have impact on selected elements of the game.

When building methodological assumptions for gamification design, two autonomous areas should be distinguished: (1) the goal to be achieved by the organization, constituting a relatively unchanging "core" of gamification, and (2) the area subject to modification by users where it is possible to change the game scheme, level of difficulty, etc.

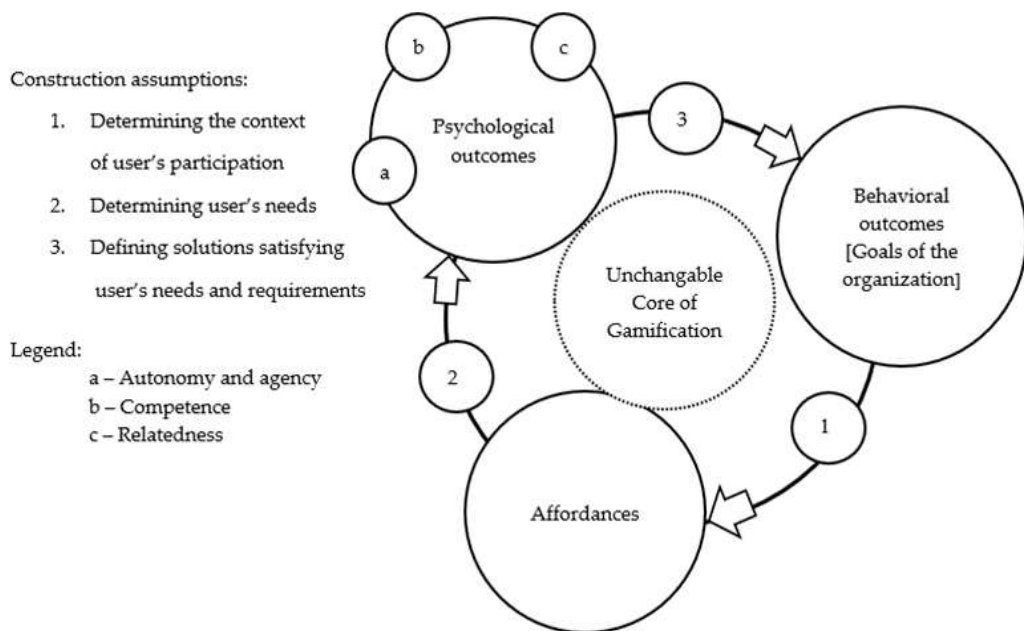
Also the narrative and aesthetics of the game can be modified to ensure the comfort of the user. The model of participatory gamification (Figure 4) proposes of a non-

linear relationship where the creative abilities of users must be sustained and strengthened. The participation model consists of three overlapping layers.

(1) The first (constructive) layer consists in understanding the context of the user's participation in the gamified service.

This applies both to the place experienced in space and the place understood as the phase of human development. Identification of the habitat and motives for participation in a gamified service is an important element in creating game narratives and individual features of gamification design.

Figure 4. Model of Gamification Design – Participation of Users



Source: Own concept.

The context of user's participation in gamification discloses the specificity of their needs, mainly related to the level of affiliation, as well as the need to define individually and socially satisfying solutions supporting the development of an individual.

(2) The second layer of the gamification design participatory model is triggering the will to act by offering the users the possibility of being creative and stimulating intrinsic motivation, which translates into what in the Huotari-Hamari model is linear, and here, due to the circularity effect, it is a repeated, redefined element of the structure. An element of the second layer is also taking into account psychological outcomes such as autonomy, competence and relatedness.

(3) The third layer of the model, is the "un-changeable core" constituting the underlying structure, including the goal of gamification, which is the main message and narrative conveyed by the organization. To be used, a gamified service must allow users considerable freedom to create their own path.

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6. Gamification in Tourism Business Management – Case Study of Grecos and Hotel Mariot

Tour operator Grecos used gamification for the travel agents it works with. The project was about gamification of sales. Gamification is, on the one hand, an additional motivation for partners and, on the other, an opportunity to present the tour operator's offer in an attractive way and test their knowledge of it. The aim was to get agents more involved, introduce an interesting new formula - and ultimately increase sales. The company has run two editions of its gamification programme.

The first edition gamification programme told the story of a journey along the legendary route to the mythical Olympus. While the second referred to the conquest of modern Greece, in fact encouraging people to learn about and explore the country. In the first edition Employees of Grecos agents, took part in an adventure involving 16 tasks, given every week 1 under the theme 'In 100 days around Greece'. In this project decided to take part 200 authorised and partner travel agents.

Nearly 400 employees logged in the system and earned points by competing to take part in the Grecos Adventure - a trip to Greece. The trip abroad was the grand prize in the competition. It appears that, the agents saw the adventure as a development and a unique opportunity to integrate and improve their skills. Each week the project became more and more popular and more participants logged on. The programme of gamification lasted about 100 days. Every week a new challenge was given to the

agents. Each of the 16 tasks was another part of the adventure under the theme 'In 100 days around Greece'.

The tasks were demanding and varied and concerned knowledge of Greece and the general Grecos offer. The further part of the tasks also dealt with increasing sales execution. Because of this, all tasks required commitment and creativity from the participants. Participants' statements confirmed that this form of assimilation of the company's offer was inspiring. Although well knowledge about Greece, they learned more and more about it. They underling necessity of creativity in their activity, and a wide knowledge of this country.

They said that the programm of gamification helped them to show their clients true, fascinating Greece. The aim of the second edition of gamification was deeper recognition of Greece island by workers travels agents. The welcome message read: "We are taking you to places that continually delight travellers from all over the world!". The workers have the opportunity to know better the island named Kos "the land of honey flowing". The Grecos materials included information about, among other things, the popular bee keeping and honey production on Kos, but also about the honey festival celebrated on 24 August in the town of Antimachia called Γιορτή του μελιού (Giorti tou Meliou).

The task was to submit a photo showing a visit to Greece or preparations for the trip. As a result, 587 participants took part in the competition with a total of 4211 tasks. Each day, 27 employees were active. The commitment of active employees was maintained at almost 70 per cent. Both editions of the projects of gamification had the desired effect (<https://www.westhill.pl/projekty/case-study-grecos-adventure/>).

The next example use the gamification with success is Marriott International, Inc. is an American multinational diversified hospitality company that manages and franchises a broad portfolio of hotels and related lodging facilities. This time gamification has been used in staff recruitment. Marriott has developed a hotel-themed online game, similar to Farmville or The Sims, in which players have all the responsibilities of a hotel kitchen manager.

Users will learn about the industry while earning virtual rewards that will improve the industry's image in their eyes. At "My Marriott Hotel" on Facebook, users can start playing the game by selecting a language from English, Spanish, French, Arabic and Mandarin, and then begin managing the hotel's 'virtual' restaurant kitchen. The use of game in hospitality branch is important especially that Marriott expands from the U.S to other markets. The company seeks to attract more Millenials. To do it has to find new ways to interest them in hospitality careers.

This becomes critical in emerging markets where the hospitality markets where the hospitality industry might be less established. The application of this model to encourage young people to know the Marriott company have many potential

benefits. Using gamification and social media, Marriott will be able to attract a broader spectrum of targeted candidates. “My Marriott Hotel” was developed from employee feedback, sending out the message that Marriott International Incorporated, as a company, is essentially its employees.

This social media game gives current and future employees a better sense of what it takes to run the hotel. It is internally and externally branding because players develop a certain feeling towards the company after committing to the game and experiencing what it is, or would be, like to work for Marriott International Incorporated. The company is also promoting itself globally by making the game available in 101 countries

(<https://ciffop-hrinnovation.wixsite.com/inspiration/single-post/2017/04/15/my-marriott-hotel-gamification-in-recruitment>).

7. Conclusions

The main purpose of this study was to expand and extend gamification as an interdisciplinary method used in various areas of the humanities and social sciences, in particular in business. In addition, we evaluate the possibility of the use of gamification in tourism and hospitality industry.

The conducted analysis confirmed different possibilities for using gamification to achieve the goals of companies. In addition, the literature analysis conducted confirms that gamification can support sales management and human management.

A study of a gamification project consists of the following: setting a goal or goals, identifying user characteristics, defining expected user behavior, developing the rules and the procedure of gamification, and implementing the project. The use of gamification should allow for the organization's goal to be achieved as well as user needs in the short and long run. The introduction of gamification principles in business responds to the needs of today's society, which seeks entertainment and fun, as well as goal setting and achievement.

The benefits of gamification come from meeting these needs. It can bring success among employees, consumers or other company stakeholders. The cases presented here confirms that gamification can also be used in efficiencies and effectiveness management in different areas of companies.

Given the high potential for audience response, gamification can be used in many more areas, especially important could be in services, which dominate in tourism and hospitality branch.

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