TRANSFORMING BUSINESS EXPANSION WITH GAMIFICATION: EXPLORING INDUSTRY SPECIFIC STRATEGIES AND INNOVATIONS

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ABSTRACT

Aim: This systematic review aims to examine successful gamification methods responsible for business expansion.
Methodology: A thorough literature search was done to find pertinent research. To make sure that the studies chosen for inclusion and exclusion were focused on gamification methods in business contexts. Data extraction and synthesis were carried out to analyse the selected studies.
Results: Initially, 1046 records were identified, of which 61 studies met the inclusion criteria. The review revealed a growing trend in gamification research within business contexts. Various business-specific frameworks based on gamification were identified, including point systems, leader boards, progress tracking, and personalization.
Findings: The results imply that gamification techniques are crucial in promoting business expansion by enhancing customer engagement, increasing productivity, and fostering innovation.
Conclusion: This systematic review provides an understanding of the trends, frameworks, and future directions to businesses by developing effective gamification strategies to facilitate growth and expansion in diverse industries.

Keywords: gamification, business expansion, innovations, customer engagement, productivity.

INTRODUCTION

Gamification concepts include the application of game design towards non-gaming contexts to address issues across several sectors, including, but not limited to, business, education, research, defence, and academia. For more than ten years, gamification approaches have been effectively implemented in the commercial and educational sectors to improve employee and instructor engagement and inspire pupils[1]. Academic institutions prioritize the involvement of its students and teachers, and gamification approaches have been used by a number of studies to improve instructor and student participation in massively open online courses (MOOCs);[2]. Given that the younger generation is driven by difficulties and is lured to virtual worlds in search of gamification mechanics within the business environment as a solution for the business environment, that is currently a modern business perspective is a new phenomenon. These new commercial routes and theories are causing societal transformation by allowing gamification elements to be used and accepted in non-gaming contexts [3]. Lately, some academics in disciplines like education who have greater employee engagement levels, business, Academics, the hospitality industry, and the medical field highlighted the differences between gamified along with non-gamified workplaces by publishing their success stories along with ethical concerns about gamification in the workplace. [4]. In the corporate and professional setting, game-based components such as badges, points, prizes, and leadership boards are often used to increase employee engagement and motivation[5]. A successful implementation of the right gamification mechanisms may increase employee engagement and significantly lower disengagement, which can drop from a staggering 70% to 20%[6].

Treasure hunts, enjoyable group games, team-building exercises, and group competition quizzes significantly decreased disengagement among employees, increased motivation among employees, and improved work quality[7]. A game logic is provided by gamification in non-gaming environments to increase corporate efficiency[8]. Utilizing gamification on business websites to sell to customers and encourage them with redeemable badges, points, and awards[9].[4] effectively used gamification to increase customer and staff engagement and identified the many consumer and employee categories that may participate as "players" in gamified settings. In order to address employee engagement in huge businesses, a gamified framework was created that pushes workers to analyse their abilities and carefully contribute to the company, regardless of position or hierarchy[10]. The authors of a new

research examined in-depth how gamification may be used to motivate staff members and improve engagement by modifying their attitudes and behaviours via suitable gaming activities[11].

As far as we know, there has not been a comprehensive analysis of gamification research in the current situation, specifically focusing on the application of gamification in a commercial setting. The lack of knowledge regarding the use of gamification in business hinders our understanding, necessitating a comprehensive review to address this gap.

The three main goals of this study's research objectives (ROs) are as follows: first, to provide establish an exhaustive chronology of the evolution of gamification in the realm of business expansion; second, analyze the business frameworks that are intertwined with gamification (RO2) and discern pivotal principles and trends that have influenced the discipline; Furthermore, the third objective is to propose future avenues for expanding the reach of gamification within the various businesses (RO3) through the identification of novel research domains and practical ramifications for enterprises. The following research questions (RQs) will be looked at in light of these research objectives (ROs):

RQ1: What significant turning points and developmental phases had gamification in the context of business undergone?

RQ2: What are the prominent business frameworks associated with gamification, and how have they contributed to shaping the understanding and application of gamification in business?

RQ3: How can gamification be further leveraged to enhance various aspects of business operations and strategies in the future?

METHODOLOGY

Our approach for performing a Systematic Literature Review (SLR) adhered to the Preferred Reporting Items over Systematic Reviews along with Meta-Analyses (PRISMA) guidelines. criteria is explained in detail in this section. We list the crucial phases, which encompass determining research goals, formulating a search strategy, establishing criteria for study selection, conducting data extraction, and evaluating the quality of the studies included.

SEARCH CRITERIA

We obtained pertinent research papers published from 2012 to 2024 from three online databases: Scopus, Web of Science, and Science Direct. Only original articles were included in the search parameters. that were published exclusively in the English language. The search terms employed to find pertinent research were (("gamification" AND "business expansion") OR ("gamification strategies" AND "business development") OR ("gamification" AND "customer loyalty" AND "business expansion") OR ("gamification" AND "employee engagement" AND "business growth") OR (("gamification" AND "business expansion") AND ("points" OR "badges" OR "leaderboards" OR "progress bars" OR "challenges" OR "feedback systems")) OR ("gamification methods" AND "business growth") ("customer loyalty" OR "employee engagement" OR "marketing campaigns") OR ("gamification" AND "business development") AND ("increased engagement" OR "customer retention" OR "employee performance" OR "revenue growth")).

CRITERIA FOR INCLUSION AND EXCLUSION
Inclusion Criteria:
- Research that has been printed in respectable conference proceedings or peer-reviewed publications.
- Research concentrating on gamification techniques used in corporate settings
- Studies reporting on the successful application of gamification methods for business expansion.
- Studies providing clear descriptions of the gamification strategies employed.
- Studies including quantitative or qualitative data demonstrating the effectiveness of gamification in business expansion.
- Research has been undertaken across a range of sectors and industries, encompassing technology, finance, healthcare, and retail, among others.
- Research papers released in English.

Exclusion Criteria
- Research with imprecise explanations of gamification techniques or tactics.
- Studies focusing solely on gamification in non-business contexts (e.g., education, health, entertainment).

- Studies with insufficient data or outcomes to assess the success of gamification methods in business expansion.
- Studies with a narrow focus on a specific aspect of gamification unrelated to business expansion.
- Research not included in respectable conference proceedings or peer-reviewed publications.
- Research articles written in languages other than English.
- Research that was released before to 2010, as gamification in business contexts gained significant attention in recent years.
- Studies with a primary focus on theoretical frameworks or conceptual discussions without empirical evidence of business expansion outcomes.

DATA EXTRACTION

In order to extract data for a systematic review on "gamification for business expansion," it is necessary to collect the following important details from each study: the author(s), the publication year, and the kind of research (empirical, review, or meta-analysis), the sample size, the industry context, and the gamification elements (points, badges, leaderboards). Take note of the major results, statistical significance, and company expansion metrics (e.g., staff performance, revenue growth, and customer loyalty). Evaluate the quality (methodological soundness, any biases) and take notice of the theoretical underpinnings (flow theory, self-determination theory). Provide a summary of the findings, their practical ramifications, and suggestions for further study. In order to comprehend the influence of gamification on corporate development, a thorough examination and synthesis of the research are ensured by this organized method.

DATA SYNTHESIS

This involves gathering and evaluating research results from a few chosen studies. An analysis is conducted on key results, including revenue growth, improved staff performance, and higher consumer loyalty. Typical components of gamification include leaderboards, badges, and points. Research continuously demonstrates favorable effects on company indicators, including significant increases in engagement and retention. These results are supported by theoretical frameworks such as flow theory and self-determination theory. The majority of research document positive impacts, however the degree varies depending on the implementation quality and environment. The synthesis offers a thorough grasp of gamification's function in corporate development by highlighting effective tactics and pointing out areas that need further investigation.

RESULTS

Initially, entries from the Scopus database were obtained in total: 1046 items. After duplicates were eliminated, 559 distinct records were screened. 281 records were eliminated from consideration throughout the screening procedure according to predefined standards. Among the studies that were excluded were those with unclear descriptions of gamification (n=12), those published before the year 2010 (n=4), and studies published in languages other than English (n=3). Additionally, 198 reports were not retrieved for further assessment. Subsequently, the remaining 80 reports were assessed for eligibility, resulting in the inclusion of 61 studies in the systematic review. These selected studies met the predefined inclusion criteria and formed the basis for the comprehensive analysis of successful gamification methods responsible for business expansion.
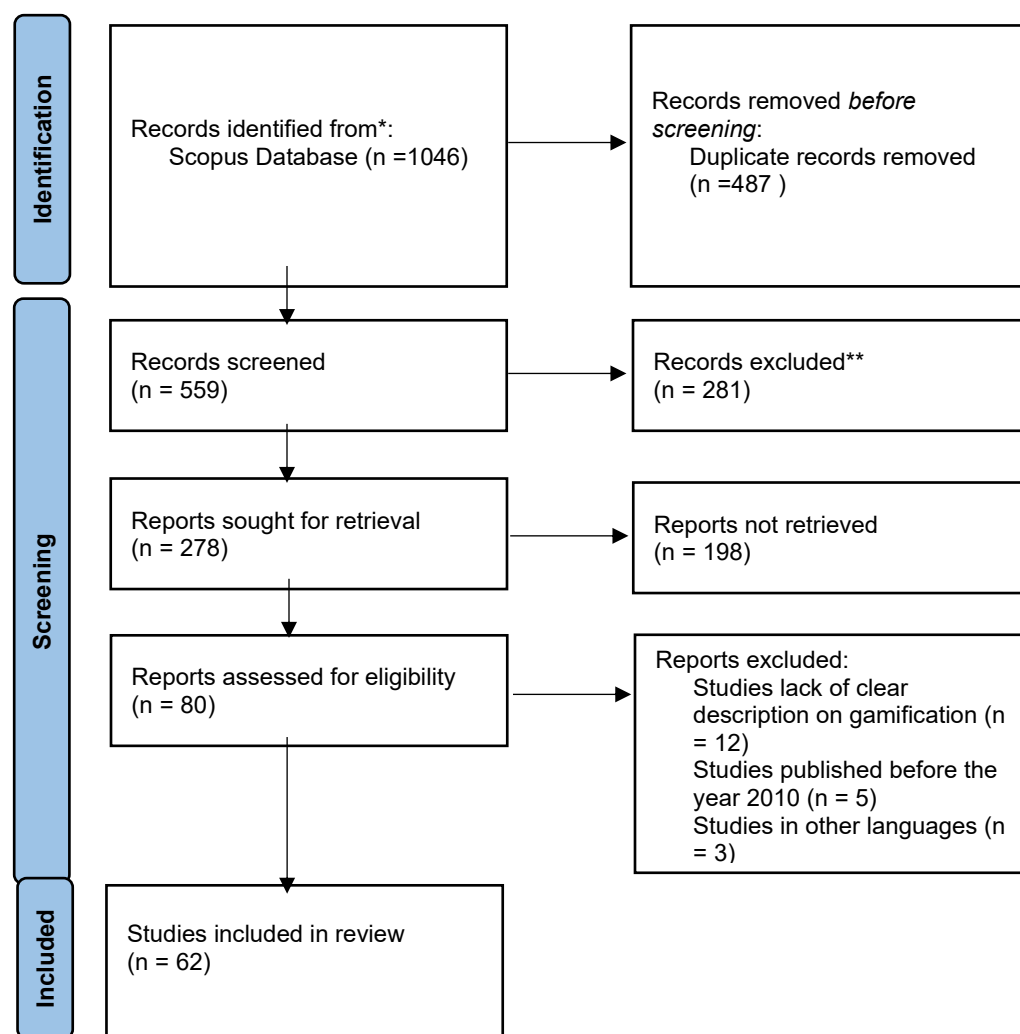
Figure 7: PRISMA flow diagram outlining how the included studies were chosen.

FINDINGS OF THE STUDY

PUBLICATION TREND OF GAMIFICATION IN BUSINESS EXPANSION

The yearly increase in papers concerning gamification in business expansion is depicted in Figure 2. The upward trend in the quantity of publications is indisputable. In 2012, four publications were published to the public. The aforementioned figures escalated as follows: 26 in 2016, 47 in 2018, 99 in 2019, and 140 in 2022. In 2021, there were 148 publications, which was the most in a single year. In addition, the 75% delivery window for the collection spanned the years 2019 to 2024. This field of study has enormous potential, as these results indicate that the effectiveness of gamification in business expansion is increasing in a positive manner. The proliferation of gamification-related research articles in business studies can be attributed to a variety of factors. Businesses worldwide are always seeking creative tactics to engage customers and enhance organizational performance due to heightened rivalry and rapidly evolving market dynamics [12].

Gamification, derived from game-design principles, provides an interactive and captivating strategy that numerous firms find valuable for improving customer loyalty and worker efficiency[13]. Furthermore, the ongoing shift towards digitalization,[14] as seen by the development of digital platforms, mobile technologies, and social media, creates a favorable setting for the implementation and examination of gamification tactics[15]. In addition, the younger cohort, who are familiar with gaming experiences [16], are now joining the workforce and market [17], leading to a change in the population makeup that supports the use of gamified strategies in business. Furthermore, the interdisciplinary aspect of gamification, which involves integrating knowledge from several fields such as

business, design, psychology, and technology, provides ample opportunities for conducting research exploration [18]. These factors' confluence has led to a growth in interest in and speed of publication of articles about gamification in Businesses.

PUBLICATION TREND OF ARTICLES RELATED TO GAMIFICATION

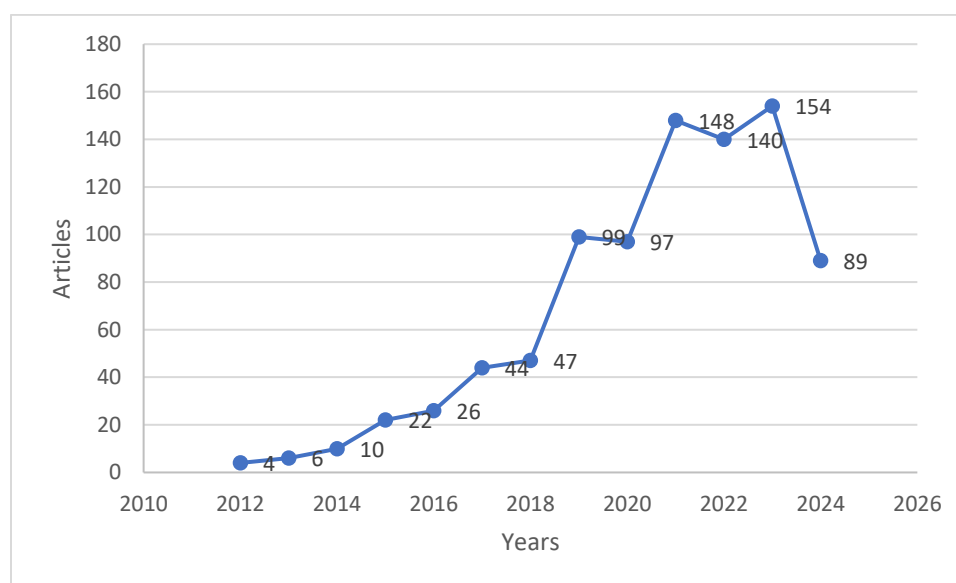| Year	No. of articles
2012	4
2013	6
2014	10
2015	22
2016	26
2017	44
2018	47
2019	99
2020	97
2021	148
2022	140
2023	154
2024	89
Total	886

Figure 8: Publication trend of gamification in business expansion

BUSINESS-SPECIFIC FRAMEWORKS BASED ON GAMIFICATION

 Explains the methodology known as "Player Centered Design." " [19] as a helpful guide for developers, product managers, along with user experience designers who want to incorporate gamification concepts into their programs only for business purposes, this approach is advantageous for the corporate environment and has special importance. The method is based upon Player-Centered Design (2004), which is a common perspective seen in many different frameworks. [20]. The main emphasis of the method is to fully comprehend the player and the objective. The process of controlling, monitoring, and measuring, considering moral and legal considerations, implementing game mechanics, and creating the rules of the game, comprehending human motivation, comprehending the player, comprehending the purpose, and developing engagement loops are the eight processes. Thus, the utilization approach (software for use) and UCD model [21] in addition to the Constantine and Lockwood (1999) model, which forms the basis of the "Role-Motivation-Interaction Framework of Gears" (2013) [22]. [23]outlines basic desires that are applied to the process of developing gamified systems. This framework is built upon a predetermined design to streamline the procedure and offer an infallible set of guidelines. The aspects that

are recommended to be taken into account throughout the design process include the actors, preconditions, behavioral norms, business rules, goals, and objectives, as well as the description of these activities' progression (gammy interactions).

Regarding this [24] suggests a "Gamification Framework" for gamification implementation at the enterprise level in an organization. A detailed grasp of the requirements determines how successful the gamification approach is, since gamification is a dynamic field that is always changing and evolving. This goal-model-based paradigm distinguishes between both short- and long-term goals. Knowing the aims and their implications, establishing the objectives, taking into account users and social media, gathering data for analysis and providing feedback, and lastly, operating the loop engagement are all taken into account.

Furthermore, focusing solely on a marketing setting, [25] provide a detailed framework for gamification in the context of businesses. Although using a design framework isn't always necessary, the authors look at an agile design process that was created from a literature study and evaluated by an empirical research.. In practical terms, it was created using Werbach's entire concept while accounting for some unique characteristics of the marketing industry. This idea adds a third stage that is known as market research. However, the "Theoretical Model for Gamification in Workplace IS context" is put forth by [26]. It provides a theoretical framework for creating and executing Information technology (IT) perspectives on gamification in relation to information systems (IS) for usage in the workplace. The Technology Acceptance concept (1989), also referred to as [27], is the cornerstone of the idea, concentrating on how users learn to accept and utilize technology. In order to provide suggestions going forward, [28] Success model requires an IS success assessment synthesis.

Furthermore, [29] defines A "Framework for Designing Gamification in the Enterprise" as a prescriptive approach to creating a gamification environment for the business. The author points out that there are several steps involved in the gamification process, which is highly complex. As a result, a framework is put forth to direct designers from conception to execution and enhancement. There are three stages to this method. The definition of objectives, comprehension of reasons and challenges, and management of challenges are all included in the first phase. The development of the story, the game mechanics, and the interface are all included in the second stage, known as game design. The third phase's implementation of the gamification environment and evaluation marks the process's conclusion.

In our literature study, "Gamification Model Canvas" [30] offers a framework with a business-centered approach. It is a quick, adaptable, and methodical approach for identifying and assessing play-based techniques to support the growth of certain habits outside of the gaming environment. Its foundation is the Mechanics-Dynamics-Aesthetics (**MDA**) game design framework and the Business Model Canvas design [31]. This union creates a new framework in which the gamified design process has to consider a variety of variables, such as player behaviors, revenues, dynamics, platforms, parts, mechanics, and aesthetics in addition to expenses. Lastly, keeping Li's viewpoint, [32] The development of gamification is referred to as "technology-centered design." His methodology is founded on an adaptation of the RUP (Rational Unified Process) iterative software development process framework for the gamification industry. With a focus on business modeling and ending with monitoring and improvement, his strategy aims to demonstrate the progressive integration of gamification into arbitrary information systems. In this strategy, role definition (end-user, gamification, domain, business, along with IT specialists) is also considered crucial. Herzig outlines the stages that need to be taken into account, including requirements gathering, provisioning, implementation, testing, deployment, and monitoring. Examples of effective gamification introductions in business settings are shown in the table below.

Table 1: SUCCESSFUL INTRODUCTION OF GAMIFICATION IN BUSINESS CONTEXT.

Serious Games	Description	Benefits
Houthoff Buruma.	The Game: a somber recruiting game created by the Dutch legal practice Houthoff Buruma	Helped many HR managers in recruitment process
Novicraft_	Microsoft developed the serious game NoviCraft.	The game was created with an intention of aiding corporate clients in achieving social excellence and developing mutual understanding with diverse individuals amidst changing conditions

Adaptation Learning Model (ALM):	Modification Test, validate, and improve strategies to facilitate revolutionary organizational change with the help of this serious game. Made possible via Decision Path,	Life of many employees was made easy with the implementation of adaption learning model in many corporate sectors
Addo Agnitio Award (A³)	The management consulting, technology, and outsourcing firm Accenture introduced this gamification initiative. The Addo Agnitio Award(A3) program used a rewards system to accomplish its goals.	The company formulated this gamification method with the goal of fostering cooperation and communication among its more than 250,000 global employees.
Slalom Consulting Game	Located in Seattle, this smartphone app game was developed by Seattle Game Consulting. There were leaderboards and an achievements system in the game.	The app was used to improve staff collaboration. Nearly 1800 workers of the firm (more than 90% of them) participated in the game.
Going Social	Taking a Social Plunge, Bluewolf utilizes gamification techniques. Employees may get points via the Going Social program by creating and updating their profiles, participating on internal bulletin boards, and sharing Bluewolf material on social media platforms like Facebook, Twitter, and LinkedIn. .	Bluewolf uses Employee Gamification to Increase Social sharing and engagement amongst its staff.
Nike+	Nike created a system that lets its users keep track of, compare, and discuss their workout performance as they accrue accomplishment points. There are 11 million users of their system at the moment.	By installing this app the users gets motivated to accomplish their fitness goals and push themselves further to compete with their peers.
U.S Army	Serious games are presently being used by the US Army to teach soldiers and increase recruiting. They have enhanced their recruiting procedure by developing the America's Army Game. At the moment, 11 million players are engaged in their game.	This game has made recruitment a less hectic process and it has also encouraged many participants to enroll themselves for a good cause.
Starbucks Mobile app	Starbucks has an accomplishment system in their mobile app to reward its loyal consumers. The business extends unique discounts to its customers each time they accomplish a goal. Right now, their app is being used by over 6 million consumers.	This app has increased the loyalty of their customers and has encouraged many customers to be a part of it and avail the discounts given by the Co.

FUTURE DIRECTIONS FOR GAMIFICATION IN BUSINESSES

To improve and enhance the current and historical framework for gamification knowledge in business expansion, we looked at eight potential directions for future research. Future research endeavors seek to expand on current understanding while investigating novel domains in which gamification may find application or further investigation. Researchers can further the field of gamification in business expansion and possibly find new uses or insights that might help different industries and domains by looking into these suggested extensions.

Expanding Gamification In Businesses Through Virtual Reality

Businesses are employing virtual reality has an innovative tool in the digital age means of client communication. The combined usage of gamification along with virtual reality is expected to see promising development. [41]. Virtual reality is a concept that is gaining popularity. Academics may see virtual reality apps as a chance to

investigate the impact of gamification along with virtual reality on learning in authentic environments. This offers users and participants the possibility to learn via hands-on experiences, utilization, or exploration. [42]. Utilizing game strategies, virtual reality systems allow users to learn and engage in gamified experiences. [43]. Further investigation is necessary to determine the potential benefits that individuals may encounter via the integration of gamification with virtual reality. 5G technology has the potential to enhance the educational and participation process via the usage of VR and gamification. Other issues that may be answered include how to use Virtual reality (VR) and gamification are used to provide a cohesive educational and participatory experience. [41], obtaining the complete support of stakeholders, such as clients and staff, in line with stakeholder theory [44]. Thus, this might also apply to mixed reality and augmented reality, among other types of reality [45].

Broadening Gamification In Business Expansion With Human And Urban Perspectives

Many gamification and/or playification activities, which aim to intentionally change environments that are play-friendly and, in certain situations, where the environment itself can be played, are rooted in ludicization [46]. Considering the paucity of existing study on the topic, this creates opportunities for new research. According to research by [47]and [48], gamification concepts have the power to lessen burnout, increase motivation and engagement, along with involvement in work requiring a high level of competence when incorporated into increasingly urbanized human living.

Given that work-life harmony, or integration, is gradually replacing the concept of work-life balance in urban settings [49], Expanding the notion of human life to include the nature of labor in the future is imperative. Amazingly, there's a strong case for gamification professional paths in organizations. Making comparisons to the educational field can be enlightening. Within the academic field, one can start off as a lecturer, work their way up to become a professor, and then take on administrative positions like department head or director in the meantime. They maintain their academic status, such as that of a professor, even if they eventually abdicate these administrative duties. Comparably, professionals can "level up" in the corporate sector by taking on a variety of positions and experiences and earning "experience points" in the process, as opposed to only making vertical ascents. On the basis of their performance, they might advance to senior positions and concurrently take on a variety of functional duties. After these positions are completed, the employees can keep their seniority along with the experiences and awards they have received. This multifaceted advancement strategy can boost employee engagement and build a diverse skill and experience base inside the company. Businesses could support this by using tokens, badges, or other gamified components to recognize the diverse development of their workforce. An approach this creative speaks to the changing dynamics of the contemporary workplace, where workers want varied experiences and opportunities for advancement.

Expanding Gamification In Businesses Within The Realm Of E-Commerce

Gamification strategies are used by e-commerce businesses to capitalize on the benefits of often returning clients by employing recommendation engines and enhancing customer retention [50]. Prominent instances include Google Pay, a platform that promotes digital transactions and offers customers electronic scratch cards or coupons as incentives when transferring funds. Consequently, gamification has greatly altered user engagement and fostered favorable website utilization. This strategy encourages customers to return to e-commerce websites, consequently enhancing their financial progress. By incorporating novel gamification components, there is an increase in direct and customized user involvement, leading to a boost in online revenues [51]. Moreover, the utilization of artificial intelligence-driven live chat, commonly referred to as chatbots, can effectively alleviate doubts, hence increasing engagement and enhancing the overall user experience. Exploring artificial intelligence, marketing analytics, personalization, and storytelling could be beneficial for enhancing the e-commerce gamification experience [52][53][54][55].

Advancing Gamification In Businesses Towards Sustainable Development

There is a strong emphasis on sustainable development and customer behavior, suggesting that In the future, gamification along with sustainable development are probably going to become more entwined. As we previously discussed in our discussion of cluster identification, gamification has shown to be an excellent tool for sustainability marketing and has helped users develop favorable attitudes toward sustainable behavior. Fostering sustainable consumption patterns, sustainable dietary habits, and long-term health maintenance are all included in this [56][57][58]. While there has been some research on the topic of gamification and sustainability, it is still mostly unexplored and the studies are dispersed. Promoting research in this area is crucial because it offers a viable way to look at how gamified processes affect sustainable development over the long run. Additionally, it makes it possible to create gamified environments with opportunities for monitoring and follow-up. Furthermore, even

though research has offered an integrative perspective on gamification for sustainable tourism, effective and expressive Eco gamification outcomes must be developed and implemented in order to promote sustainable behavior in line with Sustainable Development Goals (SDGs) [59][60].

Extension Of Gamification In Businesses In Smart Cities

The development of smart cities has been greatly aided by developments in augmented reality and information technology. A technique used to encourage public participation in smart city development is gamification[61]. Research on smart cities has shown the benefits of using gamified surveys as a research tool, and gamification has been shown to be useful in encouraging sustainable urban mobility, which is a key component of smart cities[62]. Additionally, gamification strategies have been applied to promote trash recycling, which has improved smart cities[63]. Residents of smart cities may find carpooling more common if gamification, Multiagent systems are used, together with suitably cleaned and enhanced data. Hence, it is essential for researchers to explore novel aspects of smart cities, specifically focusing on the potential use of gamification techniques to enhance the feasibility of the concept of a smart city.[64].

Extension Of Gamification In Businesses With Social Responsibilities

To sustain a solid relationship with their customers, brands are constantly implementing methods to integrate socially responsible practices into their operations as customers grow more aware of their social duties. Gamification has been demonstrated to be a cutting-edge and effective method for businesses to implement corporate social responsibility initiatives. [65]. More research is required to examine how brands can use gamification to enhance corporate social responsibility, even if studies have looked at how gamification is used for connecting with stakeholders and employees for corporate social responsibility. Research indicates that the gamification design elements have a noteworthy impact on users' psychological advantages and offer deliberate incentives for them to engage in the co-creation of societal values[66]. This way, by using various socio-environmental settings, more factors impacting user psychology may be investigated[66].

Extension Of Gamification In Businesses With Video Games And The Metaverse

It's interesting to note that gamification is also showing up in the gradual rise of new technologies like the "metaverse," which is a byproduct of the development of virtual and augmented reality games that provide a more smooth incorporation of games into our everyday lives[67]. Since Generation Z is the primary user base for video games along with the metaverse, it is expected that this business will see tremendous growth in the years to come. However, little study has been done on gamification in metaverse environments. that provides gamified versions of pertinent details that are commonly used in metaverse [68]. Per experimental research conducted in the metaverse, a user's desire to acquire is projected to be improved by in addition to the game-like experience-based world, the incorporation of game-like experiences into their activity area.[69]. However, in order to create a metaverse environment that can have a long-term positive influence on users, it is imperative that the current gamification development process, design framework, and procedures be examined and analyzed[69].

Extension Of Gamification In Businesses With Industry-Specific Design

Companies use gamification, or the mix of several game methods, to improve their company strategies and models to attract and retain more users and customers[70]. provide an application that, using an example from the automobile industry, offers three suggestions for gamifying industrial production design environments.[71] demonstrate the use of gamification in the fashion industry in the virtual "Fashion Island." There are possibilities in the Fourth Industrial Revolution, or Industry 4.0 to engage employees as well, thanks to gamification. It attempts to promote the manufacturing of products using sustainable methods. and draw people to investigate the ideas of sustainable manufacturing. The goal of Industry 4.0 is to create more sustainable processes, therefore gamification as a means of spreading the concept of sustainability is appealing[72]. Further applied study on the possibilities of gamification in business contexts would be helpful. The use of gaming approaches should be the main emphasis of this study to improve stakeholder engagement and training, improve adaptation, and support the professional development of engineers[73].

CONCLUSION

The significance of gamification in stimulating organizational development and creativity is emphasized by this research. Through the process of synthesizing existing material, we have found effective gamification techniques and their various applicability in different industries. The results emphasize the significance of strategically implementing and tailoring gamification tactics to achieve specific corporate goals. In addition, the review highlights upcoming patterns and potential paths for gamification research, such as the incorporation of virtual reality,

sustainability, and industry-specific design. By seizing these chances, firms can amplify client involvement, enhance efficiency, and attain sustainable expansion in an increasingly cutthroat market environment. In summary, this systematic literature review offers significant insights for researchers, practitioners, and decision-makers who are interested in using the potential of gamification to achieve company growth and success.

REFERENCES

[1] K. D. V Prasad and M. R. Mangipudi, "Gamification for employee engagement: An empirical study with e-commerce industry," *Montenegrin J. Econ.*, vol. 17, no. 2, pp. 145–156, 2021.

[2] J. Bidarra and J. Coelho, "Once upon a tip...: a story of MOOCs and gamification," 2017.

[3] M. Raftopoulos, "Towards gamification transparency: A conceptual framework for the development of responsible gamified enterprise systems," *J. Gaming Virtual Worlds*, vol. 6, no. 2, pp. 159–178, 2014.

[4] K. Robson, K. Plangger, J. H. Kietzmann, I. McCarthy, and L. Pitt, "Game on: Engaging customers and employees through gamification," *Bus. Horiz.*, vol. 59, no. 1, pp. 29–36, 2016.

[5] C. Duncan, "Gamification For Employee Engagement: 18 Tactics For 2020." available, 2019.

[6] F. Navid, "3 ways to boost employee engagement with gamification." 2020.

[7] K. D. V Prasad, D. M. R. Mangipudi, and D. R. Vaidya, "Gamification and resource pooling for improving operational efficiency and effective management of human resources: A case study with an ecommerce company," *Int. J. Manag.*, vol. 10, no. 6, 2019.

[8] T. C. Fischer, "Gamification and affordances: How do new affordances lead to gamification in a business intelligence system?," in *Systems, Software and Services Process Improvement: 24th European Conference, EuroSPI 2017, Ostrava, Czech Republic, September 6–8, 2017, Proceedings 24*, 2017, pp. 310–320.

[9] K. Huotari and J. Hamari, "A definition for gamification: anchoring gamification in the service marketing literature," *Electron. Mark.*, vol. 27, no. 1, pp. 21–31, 2017.

[10] H. Kumar and S. Raghavendran, "Gamification, the finer art: fostering creativity and employee engagement," *J. Bus. Strategy*, vol. 36, no. 6, pp. 3–12, 2015.

[11] A. Gupta and S. Gomathi, "A review on gamification and its potential to motivate and engage employees and customers: Employee engagement through gamification," *Int. J. Sociotechnology Knowl. Dev.*, vol. 9, no. 1, pp. 42–52, 2017.

[12] W. M. Lim, S. Kumar, and F. Ali, "Advancing knowledge through literature reviews:'what','why', and 'how to contribute,'" *Serv. Ind. J.*, vol. 42, no. 7–8, pp. 481–513, 2022.

[13] T. Wolf, W. H. Weiger, and M. Hammerschmidt, "Experiences that matter? The motivational experiences and business outcomes of gamified services," *J. Bus. Res.*, vol. 106, pp. 353–364, 2020, doi: https://doi.org/10.1016/j.jbusres.2018.12.058.

[14] M. V. Ciasullo and W. M. Lim, "Digital transformation and business model innovation: Advances, challenges and opportunities," *Int. J. Qual. Innov.*, vol. 6, no. 1, pp. 1–6, 2022.

[15] S. Kraus, S. Kumar, W. M. Lim, J. Kaur, A. Sharma, and F. Schiavone, "From moon landing to metaverse: Tracing the evolution of Technological Forecasting and Social Change," *Technol. Forecast. Soc. Change*, vol. 189, p. 122381, 2023.

[16] M. Milanesi, S. Guercini, and A. Runfola, "Let's play! Gamification as a marketing tool to deliver a digital luxury experience," *Electron. Commer. Res.*, vol. 23, no. 4, pp. 2135–2152, 2023.

[17] W. M. Lim, "The workforce revolution: Reimagining work, workers, and workplaces for the future," *Global Business and Organizational Excellence*, vol. 42, no. 4. Wiley Online Library, pp. 5–10, 2023.

[18] I. Sam-Epelle, O. Olayinka, and P. Jones, "The Evolution of Enterprise Gamification in the Digital Era and the Role of Value-Based Models," *Sustainability*, vol. 14, no. 15. 2022. doi: 10.3390/su14159251.

[19] J. KUMAR, "Design gamification at work: Designing engaging business software. User experience, and usability. Health, learning, playing, cultural, and cross-cultural user experience," *Lect. Notes Comput. Sci*, vol. 8013, pp. 528–537, 2013.

[20] D. Charles and M. Black, "Dynamic player modeling: A framework for player-centered digital games," in *Proc. of the International Conference on Computer Games: Artificial Intelligence, Design and Education*, 2004, pp. 29–35.

[21] L. L. Constantine and L. A. D. Lockwood, *Software for use: a practical guide to the models and methods of usage-centered design*. Pearson Education, 1999.

[22] D. Gears and K. Braun, "Gamification in business: Designing motivating solutions to problem situations,"

2013.

[23] S. Reiss, *Who Am I?: 16 Basic Desires That Motivate Our Actions Define Our Personalities*. Penguin, 2002.

[24] H. Jacobs, "Gamification: A framework for the workplace," *Liverpool Univ. Liverpool.[Google Sch.*, 2013.

[25] K. Julius and J. Salo, "Designing gamification," *Marketing*, 2013.

[26] C. Li, "Evaluation of a Theoretical Model for Gamification in Workplace IS context," 2014.

[27] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models," *Manage. Sci.*, vol. 35, no. 8, pp. 982–1003, Aug. 1989, doi: 10.1287/mnsc.35.8.982.

[28] W. H. DeLone and E. R. McLean, "The DeLone and McLean model of information systems success: a ten-year update," *J. Manag. Inf. Syst.*, vol. 19, no. 4, pp. 9–30, 2003.

[29] N. Kumar, "A framework for designing gamification in the enterprise," *Infosys Labs Briefings*, vol. 11, no. 3, pp. 8–13, 2013.

[30] A. Mora, D. Riera, C. Gonzalez, and J. Arnedo-Moreno, "A literature review of gamification design frameworks," in *2015 7th international conference on games and virtual worlds for serious applications (VS-Games)*, 2015, pp. 1–8.

[31] A. Osterwalder and Y. Pigneur, *Business model generation: a handbook for visionaries, game changers, and challengers*, vol. 1. John Wiley & Sons, 2010.

[32] P. Herzig, "Gamification as a service," 2014.

[33] S. Göbel, "Serious Games Application Examples BT - Serious Games: Foundations, Concepts and Practice," R. Dörner, S. Göbel, W. Effelsberg, and J. Wiemeyer, Eds. Cham: Springer International Publishing, 2016, pp. 319–405. doi: 10.1007/978-3-319-40612-1_12.

[34] R. M. Adler and D. J. Koehn, "CALM: Complex Adaptive System (CAS)-Based Decision Support for Enabling Organizational Change," in *Unifying Themes in Complex Systems VII: Proceedings of the Seventh International Conference on Complex Systems*, 2012, pp. 2–13.

[35] R. M. Braga, D. J. Sharp, C. Leeson, R. J. S. Wise, and R. Leech, "Echoes of the brain within default mode, association, and heteromodal cortices," *J. Neurosci.*, vol. 33, no. 35, pp. 14031–14039, 2013.

[36] M. Korolov, "Gamification of the enterprise," *Netw. world*, vol. 29, no. 15, pp. 30–36, 2012.

[37] A. M. Booth *et al.*, "The role of ortho, meta, para isomerism in measured solid state and derived sub-cooled liquid vapour pressures of substituted benzoic acids," *RSC Adv.*, vol. 2, no. 10, pp. 4430–4443, 2012.

[38] P. Petridis, T. Baines, H. Lightfoot, and V. G. Shi, "Gamification: Using gaming mechanics to promote a business," 2014.

[39] R. E. Wray, J. E. Laird, A. Nuxoll, D. Stokes, and A. Kerfoot, "Synthetic adversaries for urban combat training," *AI Mag.*, vol. 26, no. 3, p. 82, 2005.

[40] G. Andonegui, S. M. Kerfoot, K. McNagny, K. V. J. Ebbert, K. D. Patel, and P. Kubes, "Platelets express functional Toll-like receptor-4," *Blood*, vol. 106, no. 7, pp. 2417–2423, 2005.

[41] S. M. C. Loureiro, R. G. Bilro, and F. J. de A. Angelino, "Virtual reality and gamification in marketing higher education: a review and research agenda," *Spanish J. Mark. - ESIC*, vol. 25, no. 2, pp. 179–216, 2021, doi: 10.1108/SJME-01-2020-0013.

[42] S. Villagrasa, D. Fonseca, E. Redondo, and J. Duran, "Teaching case of gamification and visual technologies for education," *J. Cases Inf. Technol.*, vol. 16, no. 4, pp. 38–57, 2014, doi: 10.4018/jcit.2014100104.

[43] R. D. Pinto, B. Peixoto, M. Melo, L. Cabral, and M. Bessa, "Foreign language learning gamification using virtual reality—a systematic review of empirical research," *Educ. Sci.*, vol. 11, no. 5, 2021, doi: 10.3390/educsci11050222.

[44] R. Mahajan, W. M. Lim, M. Sareen, S. Kumar, and R. Panwar, "Stakeholder theory," *J. Bus. Res.*, vol. 166, p. 114104, 2023, doi: https://doi.org/10.1016/j.jbusres.2023.114104.

[45] P.-S. Soon, W. M. Lim, and S. S. Gaur, "The role of emotions in augmented reality," *Psychol. Mark.*, vol. 40, no. 11, pp. 2387–2412, Nov. 2023, doi: https://doi.org/10.1002/mar.21884.

[46] M. Thibault, "Towards a typology of urban gamification," *Proc. Annu. Hawaii Int. Conf. Syst. Sci.*, vol. 2019-Janua, pp. 1476–1485, 2019, doi: 10.24251/hicss.2019.179.

[47] A. R. Dehkordi, M. Montazerolhoja, and M. Sharifnejad, "Journal of Iranian Architecture & Urbanism," *Academia.Edu*, vol. 12, no. 1, pp. 37–57, 2021, [Online]. Available: https://www.academia.edu/download/68132941/93_110_Riahi_Montazerhoja_Sharifnejad.pdf

[48] E. Redondo *et al.*, "EDUGAME4CITY. A Gamification for Architecture Students. Viability Study Applied to Urban Design BT - Learning and Collaboration Technologies. Human and Technology Ecosystems," 2020, pp.

296–314.

[49] S. F. Mello and P. A. Tomei, "The impact of the COVID-19 pandemic on expatriates: A pathway to work-life harmony?," *Glob. Bus. Organ. Excell.*, vol. 40, no. 5, pp. 6–22, Jul. 2021, doi: https://doi.org/10.1002/joe.22088.

[50] A. Behl and P. Dutta, "Engaging donors on crowdfunding platform in Disaster Relief Operations (DRO) using gamification: A Civic Voluntary Model (CVM) approach," *Int. J. Inf. Manage.*, vol. 54, p. 102140, 2020, doi: https://doi.org/10.1016/j.ijinfomgt.2020.102140.

[51] A. García-Jurado, M. Torres-Jiménez, A. L. Leal-Rodríguez, and P. Castro-González, "Does gamification engage users in online shopping?," *Electron. Commer. Res. Appl.*, vol. 48, p. 101076, 2021, doi: https://doi.org/10.1016/j.elerap.2021.101076.

[52] J. Thakur and B. P. Kushwaha, "Artificial intelligence in marketing research and future research directions: Science mapping and research clustering using bibliometric analysis," *Glob. Bus. Organ. Excell.*, vol. 43, no. 3, pp. 139–155, Mar. 2024, doi: https://doi.org/10.1002/joe.22233.

[53] R. Basu, W. M. Lim, A. Kumar, and S. Kumar, "Marketing analytics: The bridge between customer psychology and marketing decision-making," *Psychol. Mark.*, vol. 40, no. 12, pp. 2588–2611, Dec. 2023, doi: https://doi.org/10.1002/mar.21908.

[54] S. Chandra, S. Verma, W. M. Lim, S. Kumar, and N. Donthu, "Personalization in personalized marketing: Trends and ways forward," *Psychol. Mark.*, vol. 39, no. 8, pp. 1529–1562, Aug. 2022, doi: https://doi.org/10.1002/mar.21670.

[55] J. R. de O. Júnior, R. Limongi, W. M. Lim, J. K. Eastman, and S. Kumar, "A story to sell: The influence of storytelling on consumers' purchasing behavior," *Psychol. Mark.*, vol. 40, no. 2, pp. 239–261, Feb. 2023, doi: https://doi.org/10.1002/mar.21758.

[56] V. Berger and U. Schrader, "Fostering sustainable nutrition behavior through gamification," *Sustain.*, vol. 8, no. 1, pp. 1–15, 2016, doi: 10.3390/su8010067.

[57] C. Lee, K. Lee, and D. Lee, "Mobile healthcare applications and gamification for sustained health maintenance," *Sustain.*, vol. 9, no. 5, pp. 1–12, 2017, doi: 10.3390/su9050772.

[58] R. Mulcahy, R. Russell-Bennett, and D. Iacobucci, "Designing gamified apps for sustainable consumption: A field study," *J. Bus. Res.*, vol. 106, pp. 377–387, 2020, doi: https://doi.org/10.1016/j.jbusres.2018.10.026.

[59] A. L. Negruşa, V. Toader, A. Sofică, M. F. Tutunea, and R. V. Rus, "Exploring gamification techniques and applications for sustainable tourism," *Sustain.*, vol. 7, no. 8, pp. 11160–11189, 2015, doi: 10.3390/su70811160.

[60] C. Souza, V., Marques, S., Veríssimo, M., & Costa, *Gamification as a research strategy to promote sustainable urban tourism*. Academic Conferences and Publishing Limited, 2020. [Online]. Available: https://books.google.co.in/books?id=8BwEEAAAQBAJ

[61] M. Zica, S. Riurean, A. Ionica, and M. Leba, "Gamification in tourism mobile application development," *Int. J. Tour.*, vol. 2, pp. 20–23, 2017.

[62] R. Kazhamiakin *et al.*, "Using gamification to incentivize sustainable urban mobility," in *2015 IEEE first international smart cities conference (ISC2)*, 2015, pp. 1–6.

[63] A. G. Briones *et al.*, "Use of gamification techniques to encourage garbage recycling. a smart city approach," in *Knowledge Management in Organizations: 13th International Conference, KMO 2018, Žilina, Slovakia, August 6–10, 2018, Proceedings 13*, 2018, pp. 674–685.

[64] R. Olszewski, P. Pałka, and A. Turek, "Solving 'Smart City' Transport Problems by Designing Carpooling Gamification Schemes with Multi-Agent Systems: The Case of the So-Called 'Mordor of Warsaw,'" *Sensors*, vol. 18, no. 1, p. 141, 2018.

[65] M. L. Ghahroud, "Gamification for Energy Conservation and Corporate Social Responsibility (CSR)," *J. Econ. Environ.*, vol. 1, no. 4, p. 6, 2020.

[66] F. Jun, J. Jiao, and P. Lin, "Influence of virtual CSR gamification design elements on customers' continuance intention of participating in social value co-creation: The mediation effect of psychological benefit," *Asia Pacific J. Mark. Logist.*, vol. 32, no. 6, pp. 1305–1326, 2020.

[67] A. Jovanović and A. Milosavljević, "VoRtex Metaverse platform for gamified collaborative learning," *Electronics*, vol. 11, no. 3, p. 317, 2022.

[68] S. Kraus *et al.*, "Literature reviews as independent studies: guidelines for academic practice," *Rev. Manag. Sci.*, vol. 16, no. 8, pp. 2577–2595, 2022.

[69] S. Park and S. Kim, "Is sustainable online learning possible with gamification?—The effect of gamified online

learning on student learning," *Sustainability*, vol. 13, no. 8, p. 4267, 2021.

[70] O. Korn, P. Muschick, and A. Schmidt, "Gamification of production? A study on the acceptance of gamified work processes in the automotive industry," in *Advances in Affective and Pleasurable Design: Proceedings of the AHFE 2016 International Conference on Affective and Pleasurable Design, July 27-31, 2016, Walt Disney World®, Florida, USA*, 2017, pp. 433–445.

[71] L. Donatiello, E. Morotti, G. Marfia, and S. Di Vaio, "Exploiting immersive virtual reality for fashion gamification," in *2018 IEEE 29th Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, 2018, pp. 17–21.

[72] R. Patricio, A. Moreira, F. Zurlo, and M. Melazzini, "Co-creation of new solutions through gamification: A collaborative innovation practice," *Creat. Innov. Manag.*, vol. 29, no. 1, pp. 146–160, 2020.

[73] A. C. B. Reis, E. Silva Júnior, B. B. Gewehr, and M. H. Torres, "Prospects for using gamification in Industry 4.0," *Production*, vol. 30, p. e20190094, 2020.