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Impact of Gamified Advertisements on Customer Retention: A Psychological Perspective

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Abstract

Gamification in the advertising industry, known as advergames, is increasingly used to move away from traditional advertising techniques. Successful customer retention through advergames can lead to higher profitability due to reduced acquisition costs and increased lifetime value. This literature review explores how using gamified advertising impacts customer retention from a psychological perspective. The main emerging themes in the current literature are self-efficacy, learning, autonomy, and user experience. These themes are grounded in psychological theories, including Self-Determination Theory, Social Cognitive Theory, and Flow Theory. The advergame design's increased intrinsic motivation also impacts the themes in the literature. Current research has predominantly focused on short-term customer engagement rather than long-term retention. The current studies use A/B testing methodologies followed by a survey to test for engagement in the advergame. More longitudinal experiments are needed to attribute the advergame's success to long-term customer retention. The experiments should observe customers' shopping behaviors over time to understand long-term retention patterns correlated to using an advergame.

Keywords Advergames, gamification, customer retention, motivation, game design, psychological theories, gamified advertisements

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1 Introduction

Businesses globally are constantly searching for better ways to attract and sustain customer loyalty toward their products or services (Harris & Rae, 2009). Once a consumer becomes aware of a brand, companies need a method to encourage the consumer to interact with the brand. Leading the customer to move through the customer journey using additional touchpoints (Lemon & Verhoef, 2016). Furthermore, brands are looking to separate themselves from traditional marketing techniques into modern techniques like leveraging gamification (Lee & Faber, 2013).

Gamification refers to using game elements in non-game contexts. The term became widespread in 2010 and is used in many industries (Deterding et al., 2011). Businesses have been using gamification to engage different stakeholders in the company. For example, gamification can help engage employees in training programs (Yang & Yousra Asaad, 2017). A study conducted in Malaysia by two IT multinational organizations revealed that utilizing gamification techniques in employee training proved effective in increasing engagement in training programs (Basit et al., 2021). Therefore, using gamification for engagement in activities was beneficial for the IT multinational organizations in the study to engage employees in training. Companies hope to capitalize on the increased engagement by using gamification in advertising (Syrjälä et al., 2020).

Gamification introduced into an advertising setting is called advergames. Advergames are designed to promote a product or service using video game techniques (Terlutter & Capella, 2013). Businesses have introduced advergames tied to their products to increase engagement with the brand (Robson et al., 2016). The goal of an advergame is to leverage consumer psychology techniques to execute successful advertising campaigns that lead to customer retention.

Customer retention in marketing can be defined as the repeated purchase of a product from an existing customer over some time (Artha et al., 2022). Companies have an extremely high cost to acquire new customers. Therefore, the companies need to retain customers to their companies (Fanderl, n.d.). An important distinction is customer retention is not brand loyalty. Brand loyalty is the biased choice to choose a brand over a repeated amount of time (Jacoby & Chestnut, 1978). The long-term goal for many companies is to develop customers' brand loyalty towards the brand. This literature review will focus on customer retention.

Psychological theories play a critical role in understanding how to properly lean into using an advergame effectively from the lens of customer retention. Companies are altering traditional marketing techniques into advergames to increase self-efficacy and autonomy, learning about the product and brand, and developing a better user experience. Self-determination Theory, Social Cognitive Theory, and Flow Theory are three psychological theories that lay the foundation for the emerging themes in the literature (Robson et al., 2016; Yang & Yousra Asaad, 2017).

1.1 Key Objectives

The framework of consumer psychology embedded in advergames for marketing purposes underlies the foundation of this literature review. The review will explore whether gamified advertisements impact customer retention from a psychological perspective.

In the process of answering the main research question, the literature review will cover: (a) the connection between advergames and psychology theories, (b) how game elements contribute to the success of an advergame by influencing customers' motivations, (c) emerging themes of self-efficacy, autonomy, learning, and user experience, and (d) gaps and future opportunities for research. By synthesizing current literature, the review aims to explain the connection between using advergames with the intent of customers' retention of a brand.

2 Psychological Theories in Advergames

Psychological theories provide a framework for the rationale for using advergames as a marketing technique in consumer retention. Three theories remaining dominant in the literature are Self-determination theory (SDT), Social Cognitive Theory (SCT), and Flow Theory.

2.1 *Self-determination Theory (SDT)*

The extant literature on gamified advertising draws on the intrinsic and extrinsic motivation components of Self-determination theory (SDT) to understand human motivation (Deci & Ryan, 2000). SDT theory outlines a mini-theory of the psychological need for autonomy, competence, and relatedness of humans to drive motivations (Deci & Ryan, 2000; Yang et al., 2017). Autonomy in the context of the SDT is the feeling an individual has in control of themselves and their actions without external pressure (Dickinson, 1995). Competence relates to the feeling related to the ability to master a challenge (Li et al., 2024). The dimension of relatedness in the SDT is a basic psychological need for connection to others and feeling accepted (Deci et al., 2017; Deci & Ryan, 2000). The combination of each of the dimensions in this theory ignites a drive for intrinsic motivation, which leads to the reasoning behind the success of advergames in customer retention.

Each SDT dimension poses different support for advergames. Specifically, the dimension of autonomy is present in advergames through a user's ability to make choices. The application of this aspect in advergames lies within the customization aspects in each advergame (Kim et al., 2015). Decision-making options can increase the feeling of perceived autonomy (Felsen & Reiner, 2011). Letting players choose their destiny within advergames can lead to an increase in the autonomy dimension of SDT.

Furthermore, SDT explains how engagement with an advergame boosts users' perceived competence. This feeling can be supported by progressing through different levels in the advergame. A study by Guardini, De Simone, and Actis-Grosso (2019) investigated how increasing XP (experience points) earned in a video game affects enjoyment and perceived competence. The study found individuals assigned to receive more XP during gameplay had an

increased level of perceived competence. Increasing a user's feeling of competence can increase the intrinsically motivating factors for that individual, according to SDT.

Relatedness in the Self-determination theory adds an opportunity for connection between players in an advergame. An advantage of using a gamified advertisement experience is the opportunity to connect with brand consumers. One example of customers feeling relatedness in an advergame was in Jay-Z's book launch scavenger hunt game Decoded (Robson et al., 2016). Decoded was created to increase customer engagement with the launch of Jay Z's book. The goal of the game was to collect pages of the book via an online scavenger hunt across the United States. To increase relatedness between players in the game, players could partner up and chat about the game on social media platforms. The result of this game allowed individuals to feel connected to a group of players with matching interests. Likewise, increasing the likelihood of playing the game and increases motivation to read the book (Robson et al., 2016).

This result was similar to a different study conducted by Fernandez-Rio, Zumajo-Flores, and Flores-Aguilar (2022) exploring the relationship between using gamification in a physical education setting for students. The study found a connection between motivation increased when students felt a stronger connection to the group (relatedness) (Fernandez-Rio et al., 2022). This study deploys gamification into an educational setting but is insightful into how individuals act toward gamification. Each dimension of SDT underlies the emergent themes of autonomy and user experience.

2.2 Social Cognitive Theory (SCT)

Social Cognitive Theory (SCT), developed by Albert Bandura in 1986, emerges as a constant theme in the literature. SCT explains how human behavior can develop continuously

through interactions between the environment, behavior, and personal factors (Terlutter & Capella, 2013). Bandura proposed the different ways in which learning can occur, not only directly but by observing the behaviors of others, observational learning (Bandura, 2001). Observational learning includes watching the behaviors of others in an environment as a learning technique.

Learning about a brand is crucial in beginning the process for a brand to retain its customers (Thaichon & Quach, 2015). Learning about a product or service is the initial step to being able to retain a customer. Advergimes are proposed as a tool to engage customers in a different medium to start learning a brand.

A study by Cicchirillo and Lin (2011) investigated how for-profit and non-profit advertising affects children. The study found by the children repeating behaviors, aspects of a brand within the advergime occurred. From the learning within the study, the researchers were able to conclude that the adoption of material was more likely to be made in real life by participants. This study shows how learning can take place through an advergime medium. Advergimes with rewards for game success can reinforce the learned behavior (Terlutter & Capella, 2013). Once learning has taken place and the individual is engaged, customer retention exhibits a greater likelihood.

Along with observational learning, an aspect of SCT is self-efficacy. Self-efficacy is how an individual's belief in their ability to affect their environment can lead to a desired outcome (Stajkovic & Luthans, 1998). Self-efficacy can lead to a drive of motivation when an individual is interacting with their environment.

For example, Klimmt and Hartmann (2006) analyzed the impact of self-efficacy on video game motivation. If individuals did not believe they would have success in the video game, this had the opportunity to diminish their enjoyment of the game and motivation to play. Ensuring sufficient opportunities for success in the game will help increase the motivation of the player. In an advergame, with no motivation to play the game, the intent for the advertisement of customer engagement and retention from the advergame cannot be met. Therefore, the design features of each advergame provide a determinant for the psychological reactions like motivating outcomes for customers.

2.3 Flow Theory

An additional psychological theory underlying emergent themes in advergame literature is Flow Theory. Flow theory is the state of deep focus and engagement in an activity (Csikszentmihalyi, 1990). The state of flow is where individuals find an equal balance of challenge and skill while completing a task. If a task is too high in challenge when compared to skill, the individual will feel a sense of anxiety begin to creep in. On the other hand, if an activity is too high in skills needed, with a lack of challenge, the individual may feel bored. The theory analyzes engagement and the motivation to complete the activity.

A longitudinal study by Shernoff, Csikszentmihalyi, Schneider, and Steele Shernoff (2003) observed students' engagement in an activity according to Flow Theory. The study revealed that when a student's perceived level of challenge matched their perceived skill set, students would be more engaged in the task. Similarly, the students were more engaged in individual and group work tasks rather than listening to learn tasks (for example, listening to a lecture or watching a video). The researchers understand this to be the case due to increased autonomy in the task for the students versus the tasks the students need to listen in (Shernoff et

al., 2003). This study provides evidence emphasizing the importance of matching the level of challenge to skill when creating an activity. In addition, discussing an emergent theme in advergame literature stresses the importance of giving the individual autonomy for increased engagement.

A goal when creating an advergame is engagement by the customer to capture their interest and retain the customer. In advergames and customers, choosing to make a repeat purchase and maintaining engagement plays a crucial role in brand success. Understanding the role of Flow Theory should be incorporated into designing an advergame. The theory is used to determine the potential success of the advergame and customer engagement with the game (Van Berlo et al., 2023). Creating this balance between challenge and skill can keep customers engaged in the advergame long-term, opening up for customer retention to the brand.

2.4 Game Design Supporting Motivation in Advergames

The design of the game is one of the leading factors in advergame supporting customer retention. The design of advergames drives different motivations in customers. An emergent trend in the literature is the analysis of how game features affect the success of advergames in terms of user experience by intrinsic motivating factors.

Ryan and Deci (2000a) define intrinsic motivation as doing something because it is inherently interesting or enjoyable. This type of motivation plays a key role in individuals finding enjoyment in advergames. Intrinsic motivation is commonly connected to learning to find something self-rewarding (Alsawaier, 2018). In developing an advergame, focusing on game elements that bring joy to the players can create long-lasting engagement with the game. Creating long-lasting enjoyment with an advergame is critical to retaining customers. Enjoyment

can lead to repeated engagement with the advergame to encourage consumer purchase behavior. The game elements bringing joy to the players can vary for each type of player.

Robson et al. (2016) argued that different types of players, known as Strivers, Slayers, Scholars, and Socialites, are looking for different game features to drive intrinsic motivation. These players range on a multidimensional scale. One portion of the scale is player orientation, which describes how connected the individual would like to feel to others when playing the game. The second is player competitiveness, indicating how competitive the individual desires a game to be in a gamified experience (Robson et al., 2016). The different players have different desired outcomes of the advergame. For example, Strivers will want a game where they can achieve personal best and are less concerned with the progress of others. On the other hand, Socialites are concerned with building their network and connecting with others while playing the advergame. When designing an advergame, keeping each player at the forefront of mind can help to drive the internal satisfaction of playing the game.

Extrinsic motivation refers to doing something because it will lead to another outcome (Ryan & Deci, 2000). Game design can fuel extrinsic motivation by offering prizes or rewards for achievements in the advergame (Robson et al., 2016). Extrinsic motivation is triggered in an advergame when an individual receives something of benefit for success in the game. The literature on gamification in advertising outlines the importance of not forgoing extrinsic motivation factors when focusing on game design. An imbalance in extrinsic motivating factors outweighing intrinsic motivating factors for the advergame individuals can become less motivated to continue gameplay (Zhao & Renard, 2018).

Ryan and Deci (2000a) describe the clear distinction between extrinsic and intrinsic motivations. The advergame designer should not let the extrinsic motivator undermine the

intrinsic motivator (Reiss, 2012). Using extrinsic game elements should be coupled with intrinsic motivation factors for advertisement success (Hamid & Kuppusamy, 2017). Combining the features of game design that intrinsically and extrinsically motivate users will develop the user experience.

3 Emergent Themes

Across the reviewed literature, a core set of themes has emerged after being underpinned by psychological theories. The themes are self-efficacy, learning, autonomy, and user experience concerning advergames. Each theme plays a critical role in the literature to explain how advergames impact customer retention from a psychological perspective.

3.1 Self-Efficacy

Multiple studies highlighted the role of self-efficacy in building player confidence in advergames to maintain enjoyment. Overlaps in advergame literature include the game feature of increasing XP not only increasing competence levels but also having the ability to increase an individual's level of self-efficacy over time (Guardini et al., 2019). In addition, self-efficacy operates similarly to the state of flow in Flow Theory. The connection is understanding one's ability to complete a task and helps to properly align to a flow state. Once in the flow state, users have the intrinsic motivation to continue playing, increasing their level of self-efficacy (Csikszentmihalyi, 1990). This connection between the flow theory and SCT is demonstrated through self-efficacy. Users of the advergame have the potential to desire to play longer when self-efficacy is high, which could result in higher engagement with the band.

3.2 *Learning*

Learning plays an integral part in advergame literature in both the brand's intention of the advertisement and the player's connection to the advergame. The act of learning plays a crucial role in the development of SCT, but also the goal of an advergame for the brand. Studies regarding choices to use gamified advertisements are to get across memorable promotional material for the customer to learn about the brand. Games help users to learn about a brand through innate repetition (Cicchirillo, 2011). The repetition enforces the learning process of a user before being a retained customer.

3.3 *Autonomy*

In the literature, autonomy is not only used as a psychological need in SDT but also brought in as an important game design principle to increase motivation. Players are noted to want to have choices in different aspects of the advergame to ignite their feeling of autonomy. Furthermore, multiple studies found autonomy to be an underlying theme relating to customer engagement (Felsen & Reiner, 2011; Kim et al., 2015; Shernoff et al., 2003). Therefore, ensuring autonomy principles are present in the game play such as customization or decision-making mechanics could be important for a gamified advertisement to be successful.

3.4 *User Experience*

Developing an advergame to enhance the user experience is one of the goals in the creation of the advertisement. This theme shines through in each piece of advergame literature. SDT, SCT, and Flow Theory highlight user experience through creating advergames that support matching up gameplay to specific player needs. Multiple articles noted the connection between a positive user experience to engaging customers (Robson et al., 2016; Van Berlo et al., 2023;

Zhao & Renard, 2018). The theme of user experience in the literature supports an overarching framework of effective and ineffective approaches for developing an advergame.

4 Existing Methodological Frameworks

Table 1

Summary of Current Methodologies

Author(s) & Year	Purpose	Sample Characteristics	Research Design	Gamification Type	Variables / Constructs Measured
Yang, Asaad, and Dwivedi (2017)	Explore the use of gamification in the marketing context, customer perceptions	UK and Chinese college students, sample size: 323	Exploratory focus group, Game-play session, post-play Likert-type survey	Branded Advergame (Oreo)	Perceived usefulness, perceived ease of use, perceived social influence, perceived enjoyment
Hsu and Chen (2018)	Test gamification marketing activities and experience, value, satisfaction, brand love, and desirable consumer behaviors	Taiwan volunteers, sample size: 242	Likert-type scales	Mock online bookstore advergame	The variables studied match what is noted in the purpose of the experiment within the table
Zhao and Renard (2018)	Examine factors that lead to behavioral responses in Viral Promotional Advergames	Sample size: 175	Pre-measure (survey on attitudes toward brand), self-administrated questionnaire Likert-type scale	Viral Promotional Advergame (Télérama, French cultural magazine)	Enjoyment, escapism, the perceived value of prizes, prior attitude towards the brand
Mishra and Malhotra (2020)	Impact of gamification on online consumer decisions	Online Gamers, India, Sample size: 326	Likert-scale structured questionnaire survey	In-game advertisement	gameful experience, psychological ownership, perceived in-game advertisement effectiveness, advertisement intrusiveness, attitude towards in-game advertising, and attitude towards the game
Cicchirillo and Lin (2011)	Compared for-profit and non-profit food-related advergames	139 brands with 632 games	Advergames were analyzed by coders	For-profit and non-profit Food Advergames	Genre types to connect with healthy food habits/behaviors
Fernandez-Rio, Zumajo-Flores, and Flores-Aguilar (2022)	Testing basic psychological needs and intention to be physically active after a gamified intervention program	Year-nine students, Sample Size: 54	pre-test, post-test quasi-experimental research design	Gamified physical education lessons	intrinsic motivation, autonomy satisfaction, competence satisfaction, relatedness satisfaction, and intention to be physically active

The current methodologies are from the last decade of research. One of the main research designs common across most studies of advergame is the use of surveys to gather information.

Surveys were used following an A/B testing of advergames within different industries.

Specifically, the surveys were measured using a Likert scale. The researchers across many studies found this as an avenue sufficient to get responses from a significant amount of people.

Other themes in the methodologies include sample characteristics using younger geographically diverse populations. The variables and constructs measured include behavioral responses, psychological constructs, and consumer perceptions of the brand. The current methodologies have different gamification types allowing for diverse knowledge into the advergaming. The literature on advergaming is mainly from the past two decades. Therefore, the current methodologies used and research available have the opportunity to be expanded on.

5 Discussion

The Self-determination Theory, Social Cognitive Theory, Flow Theory, and motivations around game design work together in the literature to explain what happens psychologically to customers when using advergaming. Each theory is supported in the literature by different features to add to an advergaming and the responses from experiment participants. The emergent themes in the literature include self-efficacy, learning, autonomy, and user experience. The themes are shown through the psychological theories and the constructs researched in the methodologies.

The content of research surrounding gamification and advergaming connects many elements of psychology, but there lies a knowledge gap to what extent each theory explains what is taking place for advergaming to aid directly in customer retention. Currently, the literature focuses on how advergaming can be attributed to customer engagement but does not apply to customer retention (Mishra & Malhotra, 2021; Yang & Yousra Asaad, 2017; Zhao & Renard, 2018). Additionally, prior studies of gamified advertisements focus on short-term engagement between

customers and advergames. The studies lack information on long-term customer retention. Connections can be made throughout the review between engagement and intent to purchase. To properly develop a conclusion regarding how gamified advertisements impact customer retention, longitudinal studies need to be completed on this topic.

Likewise, a gap in the research on this topic is around the specific game factors impacting the engagement and satisfaction levels of customers. The literature suggests advergames could engage customers in a non-traditional marketing technique. Psychological theories are the backbone of the evidence of advergame success. The theories suggest an advergame has the potential to engage a customer into a brand but does not make the connection of retaining customers long-term. The implementation of an advergame for a company has multiple other factors in between the success of the advergame causing customer retention. The literature currently covers how different game designs are important for making an advergame successful. However, it is unknown which game feature affects customer retention.

Future research on this topic should include tracking shopping habits over time of customers who use and do not use advergames. This research over time would allow the connection of advergame directly affecting customer retention to be studied. More specifically, leveraging the use of pre- and post-testing research design to gather data on changes over time in consumer behaviors that could be attributed to an advergame advertisement approach. Calculating the lifetime value of a customer can also be of use in this approach (Ascarza et al., 2018). By using this method, researchers would be able to attribute the advergame directly to customer retention. The future research should maintain the current methodology practices of geographically diverse samples will help to maintain research regarding consumer behaviors across cultures.

Understanding how the shopping behaviors of consumers shift after the use of an advergame can have some beneficial practical implications for companies. A positive shift in increased retention rates of consumers will increase the lifetime value of the consumer (Ascarza et al., 2018). In contrast, if the company observes a decline or no change in customers' repeated purchasing, the return on investment would not be significant for a company to invest in advergames. Therefore, the need for longitudinal research on this topic is critical for companies.

6 Conclusion

This literature review aims to evaluate whether gamified advertisements impact customer retention from a psychological perspective. Self-determination Theory (SDT), Social Cognitive Theory (SCT), and Flow Theory are three key psychological theories used to describe how individuals are affected by advergames.

The Self-determination Theory (SDT) is used to describe the psychological need for autonomy, competence, and relatedness of humans. Each aspect is found to relate to how advergames can be created to fulfill the psychological need proposed in the SDT by Deci and Ryan. Another theme in the literature about advergames is Albert Bandura's Social Cognitive Theory (SCT). The SCT emphasizes using advergames as a tool of observational learning and self-efficacy. Beyond the classic psychological theories, the literature also stressed the importance of game design on the success of the advergame. Creating games to match all types of players will be key for a brand to launch a successful advergame. Flow Theory encompasses aspects of the other theories including intrinsic motivation and autonomy to properly describe how to maintain engagement with an advergame long-term. Balancing the level of challenge and

level of skill required for a game to match the target markets in an advergame is the key to customer retention from an advergame.

Psychological theories provide the backbone for the research, but overarching themes have emerged in the literature regarding advergames with customer retention. The first theme is self-efficacy. Self-efficacy is the advergame user's feeling of ability to complete a challenge and advance in the game. The second theme is the importance of learning in the process of playing a game and learning what the advertisement is about. Third, ensuring aspects of the game support an individual's basic need for autonomy. Finally, the last theme encompasses the rest by incorporating aspects of the game to elevate the user experience.

Each emergent theme shines through the literature to highlight the gaps in the current research. The main unexplored area concerning how advergames affect customer retention is longitudinal studies to reflect the retainment of customers. Future studies should include the methodology of tracking the shopping habits of consumers over time using pre-testing and post-testing research methods.

7 References

- Alsawaier, R. S. (2018). The effect of gamification on motivation and engagement. *The International Journal of Information and Learning Technology*, 35(1), 56–79.
<https://doi.org/10.1108/IJILT-02-2017-0009>
- Artha, B., Zahara, I., Bahri, & Permata Sari, N. (2022). Customer Retention: A Literature Review. *Social Science Studies*, 2(1), 030–045. <https://doi.org/10.47153/sss21.2952022>
- Ascarza, E., Neslin, S. A., Netzer, O., Anderson, Z., Fader, P. S., Gupta, S., Hardie, B. G. S., Lemmens, A., Libai, B., Neal, D., Provost, F., & Schrift, R. (2018). In Pursuit of Enhanced Customer Retention Management: Review, Key Issues, and Future Directions. *Customer Needs and Solutions*, 5(1–2), 65–81. <https://doi.org/10.1007/s40547-017-0080-0>
- Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*, 52(1), 1–26.
- Basit, A., Hassan, Z., Omar, N., Sethumadavan, S., & Jhanjhi, N. (2021). Gamification: A Tool To Enhance Employee Engagement And Performance. *Turkish Online Journal of Qualitative Inquiry (TOJQI)*, 12(5), 3251–3269.
- Cicchirillo, V. (2011). Stop Playing with Your Food: A Comparison of for-Profit and Non-Profit Food-Related Advergimes. *Journal of Advertising Research*, 51(3), 484–498.
<https://doi.org/10.2501/jar-51-3-484-498>
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience* (1. HarperPerennial ed). HarperPerennial.

- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-Determination Theory in Work Organizations: The State of a Science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 19–43. <https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Deci, E. L., & Ryan, R. M. (2000). The “What” and “Why” of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From Game Design Elements to Gamefulness: Defining Gamification. *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, MindTrek 2011, 11. <https://doi.org/10.1145/2181037.2181040>
- Dickinson, L. (1995). Autonomy and motivation a literature review. *System*, 23(2), 165–174. [https://doi.org/10.1016/0346-251X\(95\)00005-5](https://doi.org/10.1016/0346-251X(95)00005-5)
- Fanderl, H. (n.d.). Focusing on existing customers to unlock growth. McKinsey & Company: Re:Think. <https://www.mckinsey.com/~media/mckinsey/email/rethink/2023/08/2023-08-16c.html>
- Felsen, G., & Reiner, P. B. (2011). How the Neuroscience of Decision Making Informs Our Conception of Autonomy. *AJOB Neuroscience*, 2(3), 3–14. <https://doi.org/10.1080/21507740.2011.580489>
- Fernandez-Rio, J., Zumajo-Flores, M., & Flores-Aguilar, G. (2022). Motivation, basic psychological needs, and intention to be physically active after a gamified intervention

- programme. *European Physical Education Review*, 28(2), 432–445.
<https://doi.org/10.1177/1356336X211052883>
- Guardini, P., De Simone, D., & Actis-Grosso, R. (2019). Faster is Better: The Speed of Player Character Growth affects Enjoyment and Perceived Competence. *GHItaly19: 3rd Workshop on Games-Human Interaction*.
- Hamid, M., & Kuppusamy, M. (2017). Gamification implementation in service marketing: A literature. *Electronic Journal of Business & Management*, 2(1), 38–50.
- Harris, L., & Rae, A. (2009). Social networks: The future of marketing for small business. *Journal of Business Strategy*, 30(5), 24–31. <https://doi.org/10.1108/02756660910987581>
- Jacoby, J., & Chestnut, R. W. (1978). *Brand loyalty: Measurement and management*. Wiley.
- Kim, K., Schmierbach, M. G., Bellur, S. (Saras), Chung, M.-Y., Fraustino, J. D., Dardis, F., & Ahern, L. (2015). Is it a sense of autonomy, control, or attachment? Exploring the effects of in-game customization on game enjoyment. *Computers in Human Behavior*, 48, 695–705. <https://doi.org/10.1016/j.chb.2015.02.011>
- Lee, M., & Faber, R. J. (2013). Effects of Product Placement in On-Line Games on Brand Memory: A Perspective of the Limited-Capacity Model of Attention. *Journal of Advertising*, 36(4), 75–90. <https://doi.org/10.2753/JOA0091-3367360406>
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding Customer Experience Throughout the Customer Journey. *Journal of Marketing*, 80(6). <https://doi.org/10.1509/jm.15.0420>
- Li, L., Hew, K. F., & Du, J. (2024). Gamification enhances student intrinsic motivation, perceptions of autonomy and relatedness, but minimal impact on competency: A meta-

- analysis and systematic review. *Educational Technology Research and Development*, 72(2), 765–796. <https://doi.org/10.1007/s11423-023-10337-7>
- Mishra, S., & Malhotra, G. (2021). The gamification of in-game advertising: Examining the role of psychological ownership and advertisement intrusiveness. *International Journal of Information Management*, 61, 102245. <https://doi.org/10.1016/j.ijinfomgt.2020.102245>
- Reiss, S. (2012). Intrinsic and Extrinsic Motivation. *Teaching of Psychology*, 39(2), 152–156. <https://doi.org/10.1177/0098628312437704>
- Robson, K., Plangger, K., Kietzmann, J. H., McCarthy, I., & Pitt, L. (2016). Game on: Engaging customers and employees through gamification. *Business Horizons*, 59(1), 29–36. <https://doi.org/10.1016/j.bushor.2015.08.002>.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67. <https://doi.org/10.1006/ceps.1999.1020>
- Shernoff, D. J., Csikszentmihalyi, M., Schneider, B., & Steele Shernoff, E. (2003). Student Engagement in High School Classrooms from the Perspective of Flow Theory. *School Psychology Quarterly*, 18(2), 158–176.
- Stajkovic, A. D., & Luthans, F. (1998). Social cognitive theory and self-efficacy: Goin beyond traditional motivational and behavioral approaches. *Organizational Dynamics*, 26(4), 62–74. [https://doi.org/10.1016/S0090-2616\(98\)90006-7](https://doi.org/10.1016/S0090-2616(98)90006-7)

- Syrjälä, H., Kauppinen-Räsänen, H., Luomala, H. T., Joelsson, T. N., & Könnölä, K. (2020). Gamified package: Consumer insights into multidimensional brand engagement. *Journal of Business Research*, 119, 423–434. <https://doi.org/10.1016/j.jbusres.2019.11.089>
- Terlutter, R., & Capella, M. L. (2013). The Gamification of Advertising: Analysis and Research Directions of In-Game Advertising, Advergaming, and Advertising in Social Network Games. *Journal of Advertising*, 42(2–3), 95–112. <https://doi.org/10.1080/00913367.2013.774610>
- Thaichon, P., & Quach, T. N. (2015). From Marketing Communications to Brand Management: Factors Influencing Relationship Quality and Customer Retention. *Journal of Relationship Marketing*, 14(3), 197–219. <https://doi.org/10.1080/15332667.2015.1069523>
- Van Berlo, Z. M. C., Van Reijmersdal, E. A., & Waiguny, M. K. J. (2023). Twenty years of research on gamified advertising: A systematic overview of theories and variables. *International Journal of Advertising*, 42(1), 171–180. <https://doi.org/10.1080/02650487.2022.2143098>
- Yang, Y., Asaad, Y., & Dwivedi, Y. (2017). Examining the impact of gamification on intention of engagement and brand attitude in the marketing context. *Computers in Human Behavior*, 73, 459–469. <https://doi.org/10.1016/j.chb.2017.03.066>
- Zhao, Z., & Renard, D. (2018). Viral Promotional Advergaming: How Intrinsic Playfulness and the Extrinsic Value of Prizes Elicit Behavioral Responses. *Journal of Interactive Marketing*, 41(1), 94–103. <https://doi.org/10.1016/j.intmar.2017.09.004>