

ISTANBUL BILGI UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
MARKETING (ENGLISH) MASTER’S DEGREE PROGRAM

THE IMPACT OF MOTIVATIONS OF GAMIFICATION ON
CUSTOMER ENGAGEMENT, BRAND ATTITUDE, AND
LOYALTY INTENTION

Ulaş Emre MAHİROĞLU

116689027

Dr. Öğr. Üyesi Neşenur ALTINIĞNE EKICI

ISTANBUL

2022

THE IMPACT OF MOTIVATIONS OF GAMIFICATION ON CUSTOMER
ENGAGEMENT, BRAND ATTITUDE, AND LOYALTY INTENTION

Oyunlaştırma Motivasyonlarının Müşteri Katılımı, Marka Tutumu ve Sadakat
Niyeti Üzerindeki Etkisi

Ulaş Emre Mahiroğlu

116689027

Tez Danışmanı : Dr. Öğr. Üyesi Neşenur Altınığne Ekici
Istanbul Bilgi Üniversitesi

Jüri Üyesi : Dr. Öğr. Üyesi Esra Arıkan
Istanbul Bilgi Üniversitesi

Jüri Üyesi : Dr. Öğr. Üyesi Beril Durmuş
Marmara Üniversitesi

Tezin Onaylandığı Tarih: 16.05.2022

Toplam Sayfa Sayısı: 107

Anahtar Kelimeler (Türkçe)

- 1) Oyunlaştırma
- 2) Müşteri Katılımı
- 3) Marka Tutumu
- 4) Sadakat Niyeti

Anahtar Kelimeler (İngilizce)

- 1) Gamification
- 2) Customer Engagement
- 3) Brand Attitude
- 4) Loyalty Intention

ACKNOWLEDGEMENTS

First, I would like to thank my advisor Asst. Prof. Dr. Neşenur Altıniğne Ekici for always guiding me. Without her interest, patience, and knowledge, I would not have been able to complete this thesis. In my most difficult moments, she always supported me by keeping me focused and encouraging me with her interest and knowledge.

I would also like to thank the rest of my thesis committee; Asst. Prof. Dr. Esra Arıkan and Prof. Dr. Beril Durmuş who listened to my presentation and, showed me my shortcomings with the questions they asked, and helped me add more to my thesis. I would like to express my sincere gratitude to my dearest professor Selime Sezgin who taught and made me love marketing. May she rest in peace, neither she nor what she has contributed to us will ever be forgotten.

In addition, I would like to thank my amazing parents Günak and Fuat Mahiroğlu, and my beloved sister Ekin for their endless love and support. Being a member of this family has always made me feel privileged, and I thank them very much for that.

Furthermore, I would like to thank my friends, Erkan, Merve, Bulut, Deniz, and Teoman for their support and companionship throughout this process and life.

At last, I give my most sincere thanks to my girlfriend and my best friend Begüm for her love and support. I am truly grateful to have her by my side.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iii
TABLE OF CONTENTS.....	iv
ABBREVIATIONS	vii
LIST OF FIGURES	viii
LIST OF TABLES	x
ABSTRACT	xii
ÖZET.....	xiii
CHAPTER ONE: INTRODUCTION	1
1.1. THEORETICAL FRAMEWORK	1
1.2. THE PURPOSE OF THE STUDY	1
1.3. RESEARCH QUESTIONS	2
1.4. THE IMPORTANCE OF THE STUDY	2
1.5. DEFINITIONS.....	3
CHAPTER TWO: LITERATURE REVIEW	4
2.1. DEFINITION OF GAMIFICATION	4
2.1.1. Perceived Usefulness	7
2.1.2. Perceived Ease of Use.....	9
2.1.3. Perceived Social Influence.....	11
2.1.4. Perceived Enjoyment	14
2.2. GAMIFICATION MECHANISM AND DESIGN.....	16
2.3. GAMIFICATION FOR MARKETING.....	20
2.4. MOTIVATIONS AND EFFECTS OF GAMIFICATION	24

2.5. CUSTOMER ENGAGEMENT.....	27
2.6. BRAND ATTITUDE	33
2.7. LOYALTY INTENTION	36
2.8. TECHNOLOGY ACCEPTANCE MODEL	40
CHAPTER THREE: PROPOSED MODEL AND HYPOTHESIS	44
3.1. THE PROPOSED MODEL.....	44
CHAPTER FOUR: METHODOLOGY	47
4.1. THE RESEARCH OBJECTIVE	47
4.2. RESEARCH DESIGN	47
4.3. OPERATIONALIZATION OF VARIABLES.....	48
4.3.1. Gamification	48
4.3.2. Customer Engagement.....	49
4.3.3. Brand Attitude.....	50
4.3.4. Loyalty Intention.....	50
4.4. SAMPLING	51
4.5. DATA COLLECTION TOOLS.....	51
4.6. THE RESEARCH PARTICIPANTS	52
4.7. DATA ANALYSIS	52
CHAPTER FIVE: DATA ANALYSES AND RESULTS.....	54
5.1. DEMOGRAPHIC PROFILE	54
5.2. FACTOR ANALYSIS.....	56
5.2.1. Factor and Reliability Analyses for Perceived Usefulness	56
5.2.2. Factor and Reliability Analyses for Perceived Ease of Use.....	57
5.2.3. Factor and Reliability Analyses for Perceived Social Influence	58
5.2.4. Factor and Reliability Analyses for Perceived Enjoyment	59

5.2.5.	Factor and Reliability Analyses for Customer Engagement.....	60
5.2.6.	Factor and Reliability Analyses for Brand Attitude.....	61
5.2.7.	Factor and Reliability Analyses for Loyalty Intention	62
5.3.	CORRELATION ANALYSES	63
5.4.	REGRESSION ANALYSES	65
5.4.1.	Multiple Regression Analysis for Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.	65
5.4.2.	Multiple Regression Analysis for Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude	69
5.4.3.	Multiple Regression Analysis for Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention	72
CHAPTER SIX: DISCUSSION AND CONCLUSION		76
6.1.	DISCUSSION.....	76
6.2.	THEORETICAL IMPLICATIONS	78
6.3.	MANAGERIAL IMPLICATIONS.....	78
6.4.	LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH	79
REFERENCES.....		80
APPENDICES		91

ABBREVIATIONS

GLP : Gamified Loyalty Program
GLPE : Gamified Loyalty Program Engagement
IT : Information Technology
MBA : Master OF Business Administration
SDT : Self-Determination Theory
TAM : Technology Acceptance Model



LIST OF FIGURES

Figure 2.1. The Mechanism of Gamification	6
Figure 2.2. Conceptual Framework of Rahman, Ahmad, and Hashim (2018:8).....	9
Figure 2.3. Conceptual Framework of the Perceived Ease of Use.....	10
Figure 2.4. Conceptual Framework of Sun and Zhang (2006:626)	14
Figure 2.5. Conceptual Framework of Teo and Noyes (2011:1645)	15
Figure 2.6. The Gamification Pyramid (Werbach and Hunter, 2014:269) .	17
Figure 2.7. The Gamification Pyramid Elements (Hunter and Werbach, 2012)	18
Figure 2.8. The Interface of Gamification (Hollebeck, Das, and Shukla, 2021:3)	19
Figure 2.9. Purchase Intention Model (Aparicio, Costa, and Moises, 2021:1)	22
Figure 2.10. Conceptual framework of gamification and motivation (Zeng, Tang, and Wang, 2017:76).....	25
Figure 2.11. The customer engagement pyramid (RPO Masters, 2018)....	30
Figure 2.12. The gamified customer engagement model (Harwood and Garry, 2015:539)	33
Figure 2.13. The Conceptual Framework of Yang, Asaad, and Dwivedi, (2017:462).....	35
Figure 2.14. Brand Loyalty Configuration Study Model (Mattke and Maier, 2021:63)	37
Figure 2.15. Conceptual framework of Hollebeck, Das, and Shukla (2021:2)	38

Figure 2.16. Technology Acceptance Model (TAM) (Davis, Bagozzi, and Warshaw, 1989:985)	41
Figure 2.17. Technology Acceptance Model (TAM) (Modified TAM) in Terms of Gamification (Vanduhe, Nat & Hasan, 2020:21476).....	42
Figure 3.1. The Proposed Model.....	44



LIST OF TABLES

Table 2.1. Definitions of Gamification	5
Table 5.1. The Demographic Profile of the Participants	55
Table 5.2. KMO and Bartlett's Test Results for Perceived Usefulness	56
Table 5.3. Factor Analyses Results for Perceived Usefulness	57
Table 5.4. KMO and Bartlett's Test Results for Perceived Ease of Use.....	57
Table 5.5. Factor Analyses Results for Perceived Ease of Use.....	58
Table 5.6. KMO and Bartlett's Test Results for the Perceived Social Influence.....	58
Table 5.7. Factor Analyses Results for the Perceived Social Influence	59
Table 5.8. KMO and Bartlett's Test Results for Perceived Enjoyment	59
Table 5.9. Factor Analyses Results for Perceived Enjoyment	60
Table 5.10. KMO and Bartlett's Test Results for Customer Engagement ..	60
Table 5.11. Factor Analyses Results for Customer Engagement	61
Table 5.12. KMO and Bartlett's Test Results for Brand Attitude.....	61
Table 5.13. Factor Analyses Results for Brand Attitude.....	62
Table 5.14. KMO and Bartlett's Test Results for Loyalty Intention.....	63
Table 5.15. Factor Analyses Results for Loyalty Intention.....	63
Table 5.16. Correlation Analysis Results	64
Table 5.17. Model Summary of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.	66

Table 5.18. Anova Results of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.	67
Table 5.19. Coefficients of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.	68
Table 5.20. Model Summary of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude.	69
Table 5.21. Anova Results of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude.	70
Table 5.22. Coefficients of Regression Analysis Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude.	71
Table 5.23. Model Summary of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention.	72
Table 5.24. Anova Results of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention.	73
Table 5.25. Coefficients of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention.	74

ABSTRACT

Gamification has been one of the important concepts in the realm of games and gaming in recent years. It has been studied in various forms and perspectives in the recent literature. It has gained significant attention for children and even adult gamers as well as game designers and companies. Several studies paid attention to these important topics.

The main purpose of this thesis is to explore the relationship between Motivations of Gamification such as; Perceived Usefulness, Perceived Ease of Use, Perceived Social influence and customer engagement, brand attitude, and loyalty intention. The findings of the thesis are expected to contribute to the current literature, especially in Turkey. In addition, companies and corporations could use the results of this study to better promote their products or services with the use of gamification.

A total of 302 participants were included in the study purposes. They were asked to respond to the study questionnaire. The questionnaire included several items regarding their demographic features and attitudes in terms of gamification, customer engagement, brand attitude, and loyalty intention.

The results stated that motivations of gamification pose impacts at various levels on customer engagement, loyalty intention, and brand attitude. Furthermore, the expected relationship between motivations of gamification, customer engagement, brand attitude, and loyalty intention has been supported by the data analysis and findings of the study.

Keywords: Gamification, customer engagement, brand attitude, loyalty intention

ÖZET

Oyunlaştırma, son yıllarda oyun ve oyun dünyasının önemli kavramlarından biri olmuştur. Son literatürde çeşitli biçimlerde ve bakış açılarında incelenmiştir. Oyun tasarımcıları ve şirketlerinin yanı sıra çocuklar ve hatta yetişkin oyuncular için de önemli bir ilgi gördü. Bu önemli konulara birçok çalışma dikkat çekmiştir.

Bu tezin temel amacı; algılanan kullanışlılık, algılanan kullanım kolaylığı, algılanan sosyal etki ve algılanan eğlence gibi oyunlaştırma motivasyonları ile müşteri katılımı, marka tutumu ve sadakat niyeti arasındaki ilişkiyi araştırmaktır. Tez bulgularının özellikle Türkiye'deki mevcut literatüre katkı sağlaması beklenmektedir. Ayrıca şirketler ve kurumlar, oyunlaştırma kullanımıyla ürünlerini veya hizmetlerini daha iyi tanıtmak için bu çalışmanın sonuçlarını kullanabilirler.

Çalışma amaçlarına toplam 302 katılımcı dahil edildi. Çalışma anketini yanıtlamaları istenmiştir. Anket, oyunlaştırma, katılım niyeti, marka tutumu ve sadakat niyeti açısından demografik özellikleri ve tutumlarıyla ilgili birkaç maddeyi içeriyordu.

Araştırmanın bulguları gösterdi ki; oyunlaştırma motivasyonlarının, müşteri katılımı, sadakat niyeti ve marka tutumu üzerinde çeşitli düzeylerde etkiler oluşturmaktadır. Ayrıca oyunlaştırma motivasyonları, müşteri katılımı, marka tutumu ve sadakat niyeti arasındaki beklenen ilişki, çalışmanın veri analizi ve bulguları ile desteklenmiştir.

Anahtar Kelimeler: Oyunlaştırma, müşteri katılımı, marka tutumu, sadakat niyeti.

CHAPTER ONE

INTRODUCTION

The game business has become an important area for researchers in the gaming literature in recent years (Huotari and Hamari, 2021:17). Games were initially developed by the designers following the first personal computer introduced to the consumers. It has caught more attention, especially in the last two decades when more advanced technologies have been utilized to satisfy the customers by game companies.

Gamification is described as the use of game elements in areas of activity outside the game in order to increase the user's experience or to connect them to the game platform (Deterding et al., 2011: 10). In this context, game dynamics in daily life are used in gamification applications for incentives in actions that are performed or expected to be performed. In other words, it is a combination of a small incentive reward and a game used to motivate individuals to do an action unrelated to the game.

1.1. THEORETICAL FRAMEWORK

Gamification is considered a tool for assisting the participation of people and their motivation for completing certain tasks and activities (Aparicio et al., 2012:1). Gamification is using game design elements in non-game settings (Deterding et al., 2011). Game mechanics of the gamification process help participants to satisfy their needs.

1.2. THE PURPOSE OF THE STUDY

The main aim of this thesis is to survey the connection between Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence and customer engagement, brand attitude, and loyalty intention.

The data collected from the participants are analyzed by a statistical program based on the research questions and hypothesis.

1.3. RESEARCH QUESTIONS

Based on the previous studies and review of literature, this thesis study was guided by the following research questions:

1. What is the relationship between Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, and Perceived Social Influence and customer engagement?
2. What is the relationship between Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, and Perceived Social Influence and brand attitude?
3. What is the relationship between Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, and Perceived Social Influence and loyalty intention?

1.4. THE IMPORTANCE OF THE STUDY

Gamification has been considered one of the main marketing approaches for many corporates in recent years. Companies have been using gamification in the promotions of their services and products. Many companies adopted this new marketing approach, such as Nike, Adidas, and Starbucks. Gamification has also been considered the main approach related to customer engagement, brand attitude, and loyalty intention.

Although games and game culture have been in our lives throughout human history, recently, gamification has emerged as a popular approach. Because this is the emergence of digital games with new technologies, the growth of the digital game market, and in this context, increasing interest and addiction to digital games made with certain principles (Bozkurt ve Genç-Kumtepe, 2014:150). The Gamification approach became popular as a concept of using this emerging image for commercial

purposes and application of this same new image to learners in education as well as consumer behaviors and academic studies.

1.5. DEFINITIONS

Gamification: Gamification is the use of games and gaming philosophy, game thinking, and mechanics in various non-game areas to increase motivation and encourage game users to solve the problems (Seaborn and Fels, 2015:16).

Loyalty intention: Loyalty Intent is considered as the customer's stated performance and purchase intention towards products or services (Wicaksono and Aprianingsih, 2016:60). Loyalty intention and customer loyalty depend on various factors such as product or service quality, the price, delivery times and conditions, and technical support after the purchase. In addition, loyalty itself is affected by customer satisfaction regarding the products.

Perceived usefulness: Perceived usefulness is defined as the degree of tendency people have that their performance in their work will improve by using a particular system (Muslichah, 2018:22). People will use a system if they think it will help them do a job better. For this reason, it is expected that the perceived benefit levels of consumers about a system will have a significant impact on their intention to use online shopping technology. It has been determined in line with the results of some studies that the risk perception of the consumers has a negative effect on the perceived benefit (Yilmaz, 2018:335).

CHAPTER TWO

LITERATURE REVIEW

This chapter briefly summarizes gamification in general perspective. Specifically, a review of the literature on the definition of gamification and its related topics such as perceived usefulness, perceived ease of use, perceived social influence, and perceived enjoyment are discussed. In addition, various studies conducted on the gamification mechanism and design, gamification for marketing, and motivations and effects of gamification were reviewed.

2.1. DEFINITION OF GAMIFICATION

‘Gamification’ has been defined from various perspectives related to the definition of a game, and its systematic and experiential conditions (Huotari and Hamari, 2021:18). One of the earliest definitions of gamification was constructed by Brett Terrill in his blog in 2008 (Terrill, 2008). Terill (2008) defined gamification as utilizing mechanisms of games and implementing them for the website components to improve the engagement of gamers. It was initially called ‘Gamification,’ but in later years, it was converted into the concept 'gamification.'

Gamification is also regarded as a process where a service with an affordable gaming experience is provided and improved to satisfy the players’ wishes as well as help them to create value promotion. The game experience is supposed to emerge during the gamification process provided by any system's levels and types of service qualities.

Gamification is also described as a process that includes creating richer and more valuable services with motivational approaches to stimulate game-based experiences and resulting behavioral efforts (Terrill, 2008). It is a driving force for invoking similar experiences in the gaming exercises. The experiences are supposed

to have real behaviors and stimulations like playing games (Huotari and Hamari:20).

Table 2.1 summarizes some of the leading definitions regarding gamification. As can be seen in the table below, definitions of gamification revolve around invoking services, products, and information systems to influence potential buyers. It is related to the motivation and behaviors of the users. It also involves processing and analyzing sensitive data about the customers' behaviors and perspectives. It is also known as a new technology to influence user behaviors.

Table 2.1. Definitions of Gamification

Researcher (s)	Definition
Deterding et al. (2011:10)	“Enriching products, services, and information systems with game-design elements in order to positively influence motivation, productivity, and behavior of users.”
Blohm and Leimeister (2013:275)	“Gamification often involves storing and processing of personal, context-sensitive, and potentially also sensitive data.”
Petkov et al. (2011:1945)	“Gamification is a persuasive technology that attempts to influence user behavior by activating individual motives via game-design elements.”
Lieberoth (2015:230)	“Gamification techniques strive to leverage people's natural desires for competition, achievement, status, self-expression, altruism, and closure.”
Deterding et al. (2011)	“Gamification is defined as the use of game design elements in non-gaming contexts. It can be used as a tool to improve the participation and motivation of people in carrying out diverse tasks and activities that generally could not be too attractive.”

Blohm and Leimeister (2013:276) explored IT enhanced service industries with motivations, emotional support, and behavioral changes in the gamification process. They defined gamification as an incentive mechanism. They described gamification as a design approach. Such an approach included three steps process including usage objectives, game-design elements, and gamified service bundle. A person's motives generate usages of services, products, and information systems. Gamification is used to appeal to specific behaviors by activating personal user motives. Usage objectives create game design elements with derivation. Game design elements include game mechanics such as rankings, behavior documentation, scoring systems, and group tasks and game dynamics such as collection, exploration, challenges, and collaboration. Game design elements iterate gamified service bundle that consists of support and adaptation, including service, product, and information system.

Hamari, Koivisto, and Sarsa (2012:1530) reviewed the literature to explore whether it works in the practice as described and claimed in the theoretical perspectives. The findings showed positive impacts of gamification in marketing approaches and gaining new customers for the corporates. The effectiveness of the gamification depends on the new context and utilized aims where it was implemented. They also proposed the following steps regarding gamification based on the literature as presented in figure 2.1. Based on the information in the figure, motivational affordance affects psychological outcomes and results, which affects behavioral outcomes in the gamification mechanism and the process.

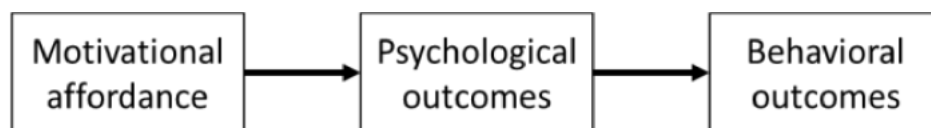


Figure 2.1. The Mechanism of Gamification

Gamification methods try to satisfy people's natural desires for competition, achievement, status, self-expression, and altruism (Hamari and Eranti, 2011:9966).

A basic gamification strategy is to reward participants for tasks they complete. Some of the rewards are points, achievement badges, a progress bar, and providing virtual currency to the participant. Another game element that can be used in gamification is competition.

A new feature that has just started to be used in gamification is education with gamified interactive video (Kiper, 2015:1). The users/trainers have the opportunity to see situations that they may encounter in real life in a real movie, moreover, by directing that movie themselves. In this way, each situation is interpreted and filmed within a game layer.

2.1.1. Perceived Usefulness

The perceived usefulness was initially developed and investigated by Schults, Slevin, and Davis in the 1970s and 1980s (Davis, 1989:319). It is basically described as an influencer or one of the major effects or variables that influence the use of the system. Specifically, people prefer using a specific application to the extent they think such an application helps them do their jobs better.

Perceived usefulness refers to the belief that one's job performance could increase if utilizing a particular system. According to the easy learning of the system, users can make it more useful (Davis, 1989:330). Perceived usefulness directly affects attitude towards use and behavioral intention for use (Davis et al., 1989, p. 987).

Another important component of the Technology Acceptance Model is known as 'the perceived usefulness. Perceived usefulness is defined as "the degree to which people have a tendency to improve their performance at work using a particular system ."People will use a system if they think it will help them do a job better (Muslicah, 2018, 24). For this reason, it is expected that the perceived benefit levels of consumers about a system will have a significant impact on their intention to use online shopping technology. There are many empirical studies supporting that Perceived Benefit has a direct or indirect effect on Online Shopping Intention.

Davis (1989:319) defined perceived usefulness as "the degree to which a person believes that using a particular system would enhance his or her job performance " This also follows the process of being capable of better job performance. Companies and corporates generally use various motivations and incentives, including raises, bonuses, promotions, and other types of rewards for better performances (Saadé, 2007:290). People and employees with high perceived usefulness are involved in positive use and good performance relationship.

Several studies in the literature focus on the perceived usefulness in terms of gamification (Panagiotarou, 2020:263; Koivisto and Hamari, 2014:179). Koivisto and Hamari (2014:179; Rahman, Ahmad, and Hashim, 2018:1) studied demographic differences in perceived benefits and usefulness of gamification. They studied demographic differences from gaming exercises. They expressed the gamification term as a process for people's engagement in their individual and social behaviors, including sustainable education and consumption. They obtained data from 195 individuals who experienced the gamification service Fitocracy. The demographic feature such as age, gender, and time of usage for the service on various benefits and characteristics of gamification exercise were studied. Their findings showed that gamification usefulness and enjoyment decrease with usage. The result was elaborated that the users might experience some novelty effects from the services. Also, women reported higher social benefits from gamification. Finally, ease of use of gamification was found to decrease with the ages of the participants.

In a similar study, Rahman, Ahmad, and Hashim (2018:1) explored the effectiveness and effects of gamification methodology for university students in Malaysia. They used the university database to identify what helped students to be more successful in terms of the gamification process. They adopted the technology acceptance model in their study. They collected data with the technology acceptance model and student course engagement questionnaire. Their findings indicated that most of the students who experienced gamification methodology showed higher motivation and were inclined to have more gamification

experiences. They also indicated that perceived ease of use is the most effective method to measure the students' attitudes against gamification.

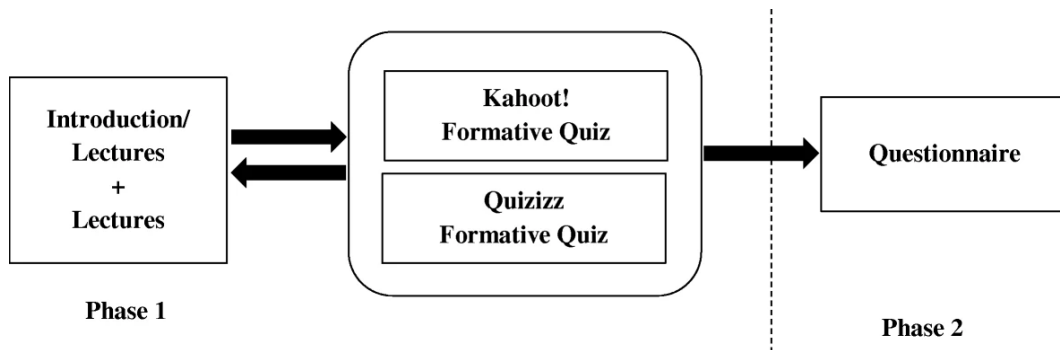


Figure 2.2. Conceptual Framework of Rahman, Ahmad, and Hashim (2018:8)

Figure 2.2 presents the framework for the study (Rahman, Ahmad, and Hashim, 2018:8). According to the above framework, there are two phases for the process of gamification in the education of college students. The first step includes an introduction and lectures. In the middle step, quizzes, and exercises by Kahoot! were utilized. In the final step, a questionnaire was given to the students that they completed at the end of the investigation.

2.1.2. Perceived Ease of Use

Perceived ease of use was defined as the degree to which a person perceives that there is no need for physical and mental effort when using a certain system (Davis, 1989, p. 315). Perceived ease of use of technology affects both perceived usefulness and attitude towards use. When individuals perceive the new technology as easy to use, they will be more willing to use the system.

Venkatesh and Davis (1996:451) discussed a model for the perceived ease of use for development and testing. They stated that the technology acceptance model was considered the main model to predict users' technology acceptance based on perceived usefulness and ease of use. Therefore, they explored possible

determinants for the perceived ease of use. They utilized three experiments with 108 participants with six systems.

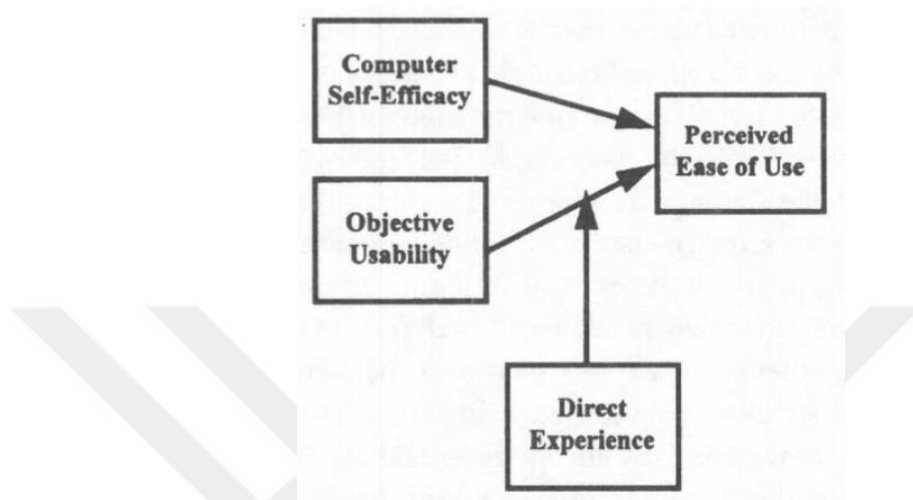


Figure 2.3. Conceptual Framework of the Perceived Ease of Use

They proposed the above model presented in figure 2.3. According to their model, computer self-efficacy and objective usability are strongly affecting the perceived ease of use. Direct experience, on the other hand, has an impact between objective usability and perceived ease of use. In conclusion, Venkatesh and Davis (1996:451) also drew attention to the antecedents of ease of use. They identified the issues as low computer self-efficacy for the target group. They suggest interventions to improve self-efficacy, not improved interface design towards user acceptance and ease of use.

Regarding factors affecting behavioral intention to utilize delivery systems and gamification, Lee, Lee, and Jeon (2017:1462) explored possible relationships among factors influencing food delivery apps by the users. They utilized the technology acceptance model and investigated past experiences of the consumers in purchasing foods with mobile applications. They applied online questionnaires and structural equation modeling for testing their hypothesis. User and firm-generated information and the quality of the system showed significant impacts on

the perceived usefulness. Moreover, the qualities of the system and design were found to affect perceived ease of use and usefulness in terms of the attitudes toward the usage of the mobile applications. Their findings showed that any perceptions of relational factors promote the customers for food delivery applications. Their findings also revealed that there are strong and direct impacts on the quality of the system, and exogenous variables on the perceived ease of use. The perceived ease of use also positively impacted the perceived attitude and usefulness.

Gefen and Straub (2000:6) examined the relative significance of perceived ease of use in information technology adoption in e-commerce adoption. They identified two factors, including perceived usefulness and ease of use, that affect information technology adoption. They proposed that perceived ease of use is strongly related to the nature of the task. It is also related to measurements of the intrinsic information technology characteristics, including ease of use and usefulness. They proposed a model that is affected by perceived ease of use, which is related to intrinsic IT characteristics in the information technology interface. They collected data from 217 participants in a simulation experiment. They found that the findings of the study supported their hypothesis. Their findings also showed that perceived ease of use affects the use of tasks intrinsic to information technology. Information technology supports main processes in tasks. Also, it was confirmed that extrinsic motivation was found more important than intrinsic motivation in information technology adoption.

2.1.3. Perceived Social Influence

Social influence refers to intentional and non-intentional determinations to affect an individual's attitudes, behaviors, or beliefs (Friedkin and Johnsen, 1990:350). Social influence is not similar to persuasion because it is not always intentional and may be accidental in some cases (Rashotte, 2007; Gass, 2015:250). It is the change of an individual's nature and perspective under the influence of actual or hypothetical, intentional or unintentional direction from a person or a group.

Peripheral processing is the main factor for social influence (Friedkin and Johnsen, 1990:350). People who are targeted for social influence are not aware of the process. The outcomes could be inconsistent with the communicator's main purposes. Some strategies, including commitment, social evidence, liking, and authority, create social influence among society and social groups.

Social influence was firstly investigated by Sherif, Asch, and Milgram in 1930, 1950, and 1960s (Gass, 2015:251). Sherif described it in the creation of group norms. Asch defined social influence in the compliance experiment. Milgram investigated social influence in the compliance experiment.

The social influence could be formed and seen in various modes. Some of them could be listed as (Moscovici and Faucheux, 1976:154):

- Standardization (informative effect)
- Conformity (normative effect)
- Obedience
- Innovation
- Social facilitation
- Loss of individuality
- Attitude change

Standardization includes the mutual influence of group members on each other. Conformity involves the majority affects individuals and the majority. The individuals obey the will of an authority. Individuals and minorities affect the majority in social facilitation. Act together, and the bystander effect works in the loss of individuality, and the individual is influenced by social contagion or role. Cognitive dissonance drives change in attitude changes.

Social influence is classified into three types: "Conformity, minority influence, self-fulfilling prophecy" (Moscovici and Personnaz, 1980:270). Conformity is a type of social influence that consists of a change in beliefs or behaviors to fit in within a group. Minority influence emerges if a majority is influenced to accept the beliefs or behaviors of a minority. A self-fulfilling prophecy is known as a prediction that

directly and indirectly causes itself to become true because of positive feedback between behavior and belief.

Social influence is related to perceived usefulness and ease of use (Shen et al., 2006:270). Some researchers call social influence subjective norms along with other personal attitudes, and they could be used to guess behaviors. People could be influenced by the efforts of the external perceived social influence. One example for the social influence was conducted by Shen and colleagues (2006:271), and they found that peer influence was the main factor that shaped the personal behavior for students on online course platforms.

In a recent study (Sima and Güleç, 2018:48), within the scope of perceived usefulness, social impact, perceived pleasure, and perceived ease of use sought to find answers to the questions of how and to what extent gamification applications attract the attention of consumers and how they affect their attitudes towards mobile game applications and gamification. A research model was designed based on the Technology Acceptance Model for the study. The data needed to examine the relationships in the model were obtained from 187 people who used gamification practices with a face-to-face interview method and were selected by the convenience sampling method. The findings showed that the social impact, perceived usefulness, and enjoyment perceived by the users positively affect the attitude and intention to use gamification applications.

The fact that people have common characteristics ensures that their behavior can be predicted; if necessary, they are prevented, changed, or obeyed (Dumlu, 2019:56). In order to understand how the conformity behavior underlying social regularity and social life serves the individual and the group and what functions it performs, this type of behavior needs to be examined in detail. Mostly, people who live in the same society tend to show similar behavior. Most people from the same country have the same language, religion, beliefs, and attitudes, and they even react similarly. The behavior of conforming to the group, which occurs as a result of social influence, creates the similarity of people and, therefore, the regularity of social behavior.

2.1.4. Perceived Enjoyment

Perceived enjoyment is defined as a degree of perception of fun, enjoyable, pleasant, pleasure, and excitement from a particular service, product, or technology (Albion, 2001:321). It could be described as the degree of enjoyment that individuals get from technology in today's world. In this sense, it plays a very important role in user technology and technology acceptance. It is also significant in explaining individuals' behavioral intentions rooting for hedonic systems.

Technological acceptance and usage behaviors are affected by various factors, including perceived enjoyment, perceived ease of use, perceived usefulness, and social influences (Sun and Zhang, 2006:620). The perceived enjoyment refers to the extent to which technology using behaviors and is known as being enjoyable that is different from any types of expected outcomes (Davis, Bagozzi, and Warshaw, 1992:1112).

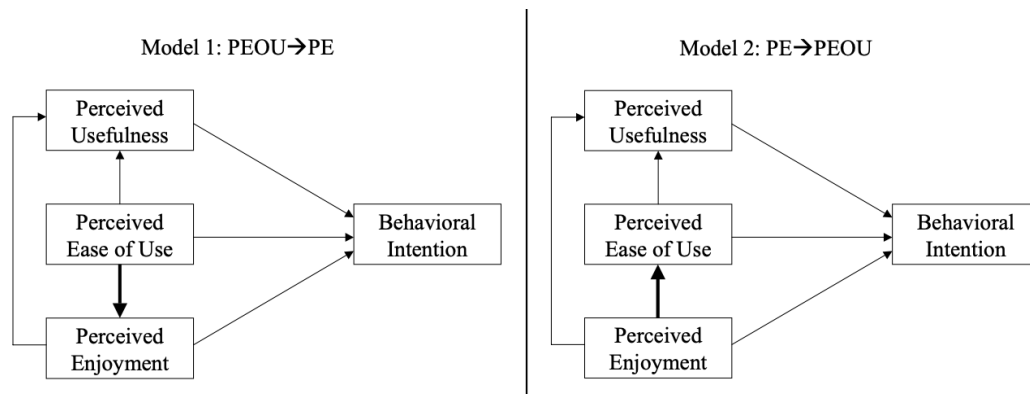


Figure 2.4. Conceptual Framework of Sun and Zhang (2006:626)

Sun and Zhang (2006:626) proposed two models that present the relationships between perceived ease of use and perceived enjoyment in figure 2.4. The first model describes the impacts of perceived ease of use on perceived enjoyment. In

this model, perceived usefulness, perceived ease of use, and perceived enjoyment show impacts on the behavioral intention. In model 2, perceived usefulness, perceived ease of use, and perceived enjoyment show an impact on the behavioral intention of the individuals.

The perceived enjoyment plays a significant role in the hedonic system and technology acceptance behaviors of the individuals. The studies (Sun and Zhang, 2006:620) showed that there is a strong correlation between perceived enjoyment and perceived ease of use. Also, perceived enjoyment affects perceived ease of use. Also, perceived ease of use affects perceived enjoyment.

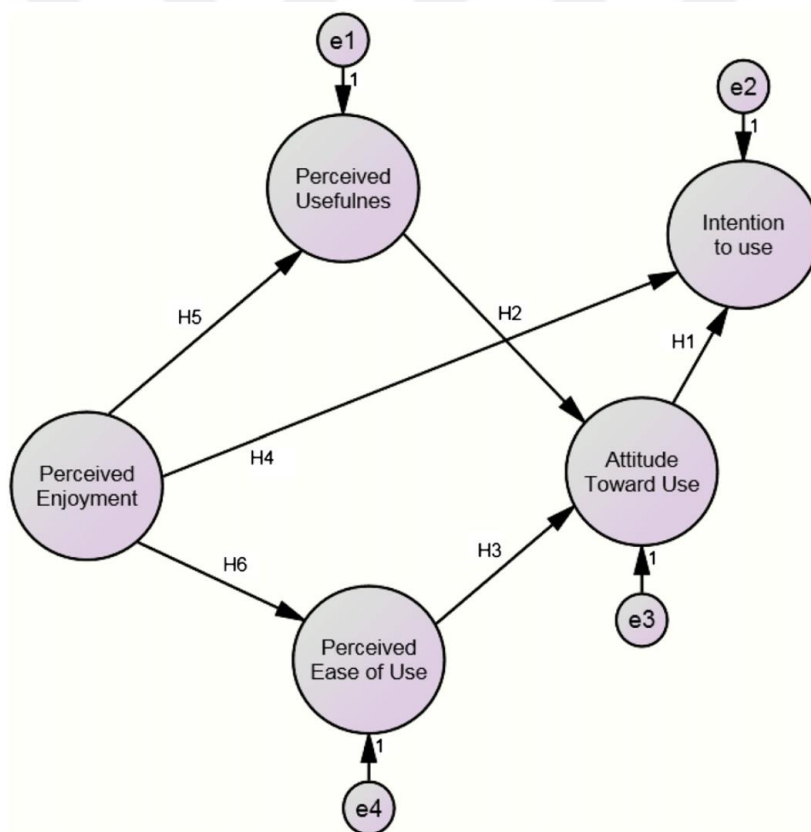


Figure 2.5. Conceptual Framework of Teo and Noyes (2011:1645)

Teo and Noyes (2011:1645) recently investigated the relationships between perceived enjoyment and attitudes toward technology use. They proposed a

structural model to explain the relationships based on the technology acceptance model (figure 2.5). According to the proposed and proved (from their findings) model, perceived enjoyment affects perceived usefulness, attitude toward use, perceived ease of use, and intention to use directly or indirectly.

2.2. GAMIFICATION MECHANISM AND DESIGN

Gamification includes game design and mechanisms in particular non-gaming contexts for the participants to enjoy and desire the process (Schacht and Schacht, 2012:181). Gamification mechanisms could be described as incentives to the player to satisfy their desires, including countdowns, points, or leader boards. Some of the gamification mechanisms could be listed as follows (Schacht and Schacht, 2012:187):

- Achievements
- Progression
- Leveling up
- Bonuses
- Leader boards
- Virality
- Cascading information
- Loss aversion
- Community

Also, the gamification mechanism mainly provides teamwork for the game players to stimulate particular behaviors in the community. Collaboration of game players is important for multi-player games to solve specific problems or tasks. For such purposes, game designers developed virality mechanics to award players when they sent invitations to their friends or family members.

The design process is not only seen as a necessary stage for the creation of works of art but also as a stage that must be present in all production processes. The realization of a technical product or work of art and even cognitive, psychological,

and cultural processes in line with predetermined frameworks shows the place of design in our lives.

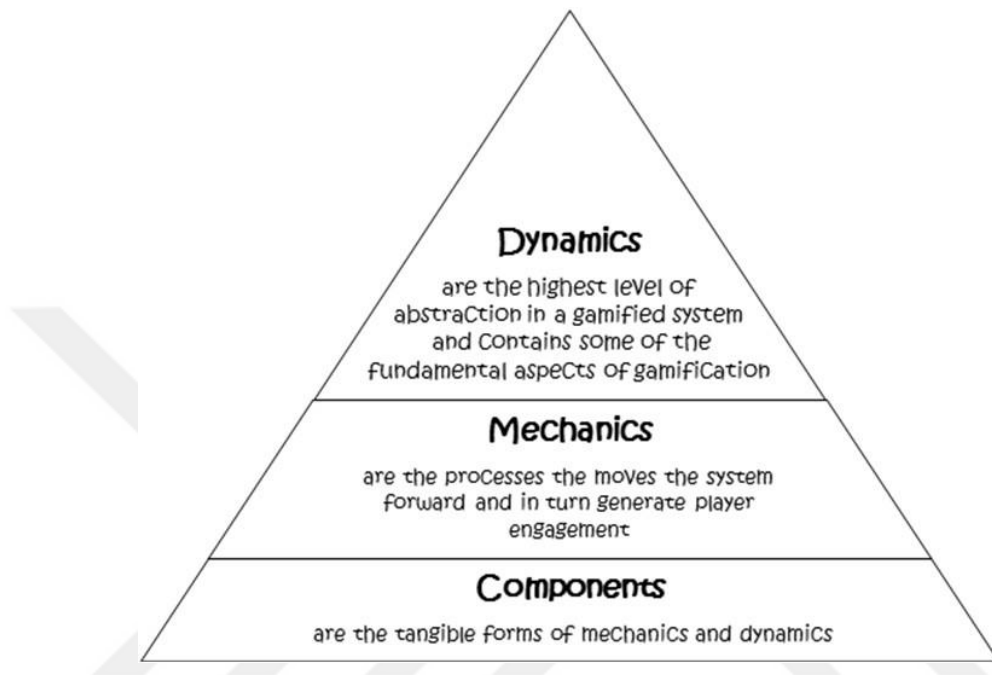


Figure 2.6. The Gamification Pyramid (Werbach and Hunter, 2014:269)

The contributions of the design process to the products and targets to be achieved, such as saving time and resources, and reaching more useful interfaces, cause designs to be realized in different disciplines for different purposes.

There is a need for resources on how to integrate this approach as well as announcing the gamification approach, which has had a rising graphic since the first day it was introduced. Werbach and Hunter (2015:92) stated that the reason for the failure of most gamification-based solutions is that the game elements are added to the system without a clear and specific framework. The success of gamification and the achievement of the targeted gains depend on the success of the process (Werbach, 2014:266).

A systematic and well-structured design process is needed to achieve successful gamification. Gamification design models have been put forward to guide

researchers and practitioners. Werbach (2014:270) proposed that the gamification pyramid has the highest level as an abstraction in the gaming system (figure 2.6).

The gamification pyramids in figure 2.6 and figure 4.7 show that the levels are components, mechanisms, and dynamics (Werbach and Hunter, 2012:124). Gaming components include tangible forms of mechanics and dynamics. The components of the gamification pyramid have elements such as collections, avatars, badges, achievement, teams, and combat.

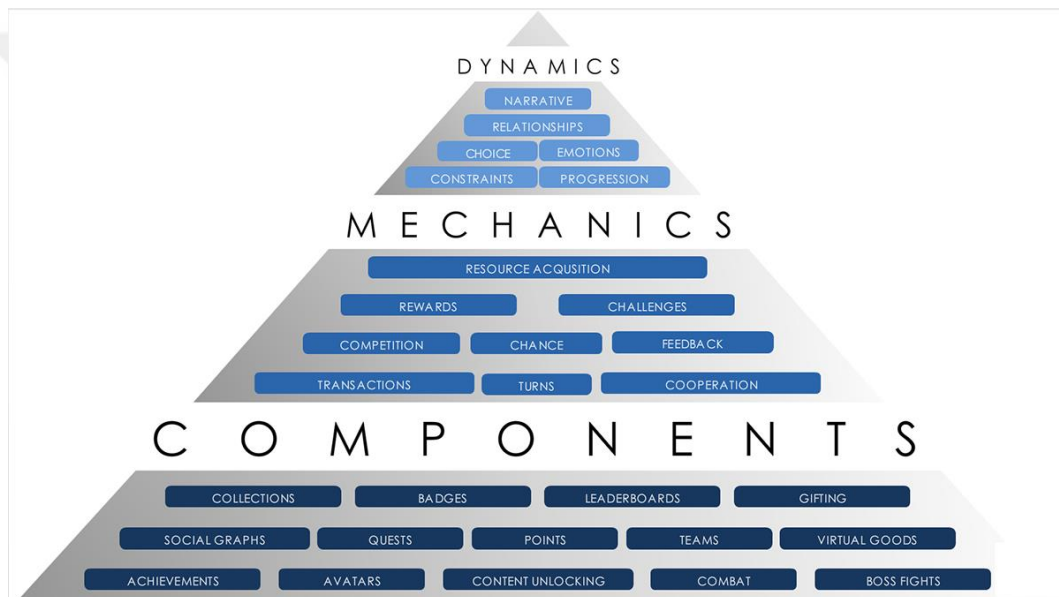


Figure 2.7. The Gamification Pyramid Elements (Hunter and Werbach, 2012)

The second tier of the pyramid includes the mechanics. These can be defined as the methods and actions which push the system further and develops engagement. Gamification is put into practice with the integration of dynamics and mechanics. The increasing level of engagement and motivation, which can be seen as one of the key variables affected by gamification, is taking advantage of these integrations. Werbach and Hunter (2012:126) proposed ten basic mechanics. Each mechanic actually allows one or more dynamics to be realized. The elements of mechanics consist of resource acquisition, competition, chance, challenges, turns, and cooperation (Mekler et al., 2017:525).

At the last and highest level of the gamification pyramid, gaming dynamics are known as the abstraction in a gamified system. It contains some of the fundamental aspects of gamification. The dynamics at the top of the pyramid of motivations of gamification are fictional design elements that are abstract to the players, yet they may have a significant role in the concept of gamification. Game dynamics are used for designing how much of an effect the player will experience by gamification. There is a variety of in-game dynamics for different types of players. The dynamics used in gamification will affect both the whole gamification and the creation process of the game's fiction. The elements of gaming dynamics are relationships, narratives, choice, constraints, and progression.

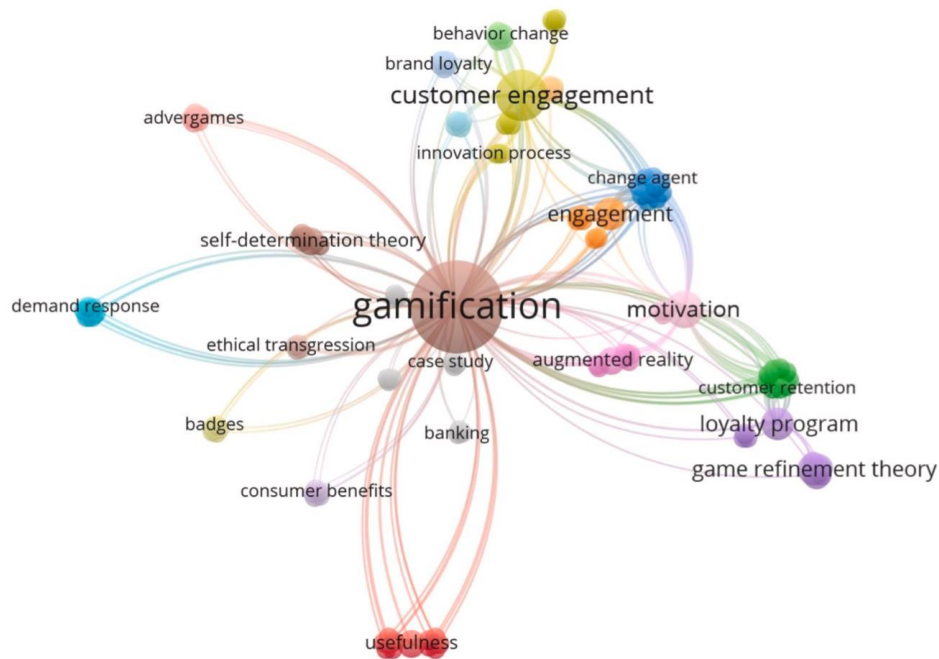


Figure 2.8. The Interface of Gamification (Hollebeck, Das, and Shukla, 2021:3)

A most recent study grouped the number of studies that focused on gamification and its related topics. The interface in figure 2.8 was proposed by Hollenbeck, Das, and Shukla (2021:3) according to loyalty programs and customer engagement. The gamification literature is classified in terms of keywords used in recent studies. The bigger the circle, the more studies were conducted in the literature. For example,

more studies focused on loyalty intention, game refinement theory, motivation, demand response, change agent, and loyalty programs.

2.3. GAMIFICATION FOR MARKETING

Games could be used for service systems (Huotari and Hamari, 2021:19). There exist various relationships between service marketing and game literature. In other words, games are generally considered as groups of systems, which need players actively involved during the game process. Game developers and game players play important roles in the production of games. Players are involved in the production as well as value creation whenever the game is played by players.

As gamification has gained strong ground in the area of marketing in recent years, the gamification market has grown to approximately 3 billion USD in the year 2016 (Yang, Asaad, and Dwivedi, 2017: 460). Corporates have also been involved in gamification. About 70% of the fortune companies worldwide started their interests and planned to use gamification for loyalty intention purposes and marketing strategies since customers have become more selective in purchasing products or services (Maloni and Gruener, 2012).

Gamification lies in the enjoyment and having good times for human beings (Yang, Asaad, and Dwivedi, 2017:461). Especially video games created steps and interests that eventually turned into game marketing and attracted the nature of people in that sense. Similar to games, gamification could be triggered with the expense of good times and enjoyment embedded in people's nature. From these perspectives, especially gamification with multimedia tools is known best for marketing strategies in the gamification efforts.

Human nature has enjoyment in playing games, competing, and winning efforts. People are able to compete to win awards in various competitions. The participating challenges and winning desires push people to gamification with small or big rewards. Such a process presents advantages for gamification with gaming characteristics and marketing strategies. People's competitive nature pushes and

provides positive feedback for brand loyalty, product loyalty, and service preferences.

The Gamification process is mostly created by the core service providers. Studies (Huotari and Hamari, 2021:20) stated four possible providers for the gamification process, which are as follows:

- 1- Third-party service provider
- 2- Another customer
- 3- Core service provider
- 4- The customers

Several promotions and marketing strategies have been used for gamified services, including customer loyalty cards. The Servicescape model that could be expanded by gamification was initially proposed by Bitner in 1992 (Arnould, Price, and Malshe, 2006: 320). It involves mostly abstract settings more than physical environments. Servicescape is known as a framework for the settings where service is emerging. It is also related to the perceptions and behaviors of the customers. IKEA could be a famous example of such an approach as the customers are forced to walk on certain paths while shopping (Huotari and Hamari, 2021:21).

Gamification and game design process, game mechanics, have been studied in recent research. Aparicio and friends (2012:1) described and applied gamification to help the participation and motivation for the individuals involved in tasks and activities. They analyzed people's social and psychological motivations and explored how the game mechanism could help them satisfy their needs. They proposed a methodology to better analyze the effectiveness of gamification according to its quality-of-service model and metrics. Based on their approach, they proposed one 4-step process including the following activities:

- a. Identification of main objectives. Main tasks to carry out the main objectives are clearly identified.
- b. Identification of the transversal objective.

- c. Selection of game mechanism. The game mechanism includes autonomy, competence, and relation.
- d. Analysis of the effectiveness. This is for the effectiveness of the gamification process based on satisfaction, quality, and fun.

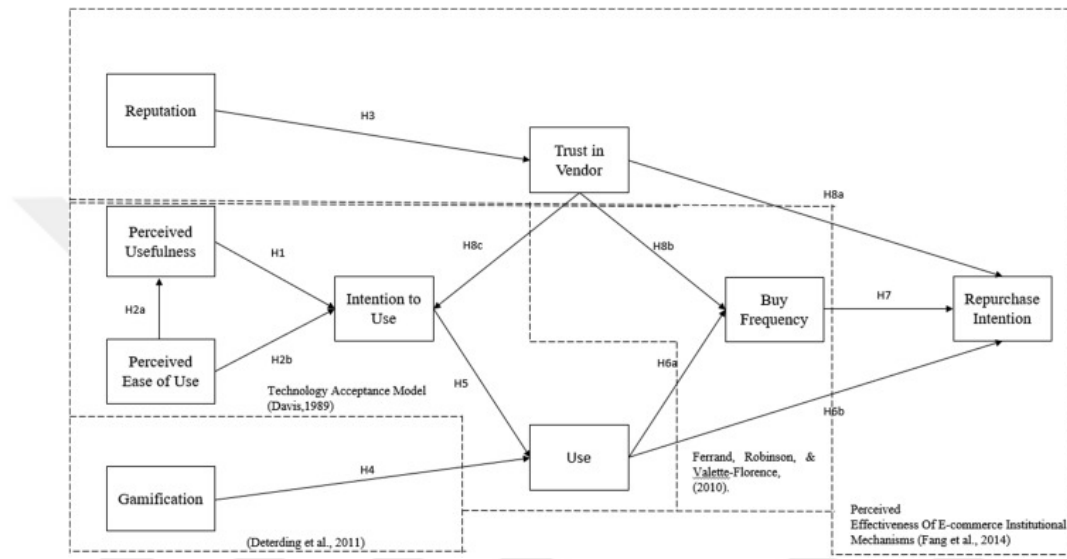


Figure 2.9. Purchase Intention Model (Aparicio, Costa, and Moises, 2021:1)

Figure 2.9 illustrates the purchase intention model that combines all of the steps related to motivation. They were all connected to each other via hypothesis. Gamification was another addition to the repurchase intention with use and buy frequencies. The other factors that effects purchase intention include reputation, perceived usefulness, intention to use and buy frequencies.

Gamification requires a design process. Gartner, Werbach, and Hunter (2012) proposed a design process for gamification (Figure 2.9). It is known as 'The D6 gamification design model) and consists of six steps. They particularly designed this business model, but it could also be used for other areas and purposes.

1. Determining targets
2. Elaborating target behaviors
3. Determining types of players

4. Designing cycle of activities
5. Adding entertainment elements
6. Determining suitable tools

Determining the job to be gamified constitutes the first stage of this model (Tunga and İnceoğlu, 2016:170). Among the goals of a gamification design made with educational purposes, one can choose goals to increase the learners' motivation towards the course, gain a positive attitude towards the course, or develop behavior for lower learner groups.

Another step in the gamification design is to determine the target behaviors (Tunga and İnceoğlu, 2016:170). Determining what behaviors, the players/learners need to perform to achieve the determined gains forms the basis of this stage. An educator who wants to increase participation and motivation for a lesson by using gamification must decide what behaviors his players should perform to achieve this goal.

The complete and precise determination of the target behaviors plays a major role in the success of the gamification design (Tunga and İnceoğlu, 2016:170). Determining the measurement tools to measure these behaviors as well as determining the target behaviors is done at this stage. The players are the individuals that will use the gamified system.

During this time, the goal is to determine the kind of players who will participate in gamification. In gamification design, two forms of activity loops are used: the engagement loops and progression steps (Tunga and Inceolu, 2016:170). The loyalty cycle in gamification explains what happens when the player does what, or how the system will respond to him at the level of physical activity.

At the adding entertainment elements stage, it is examined whether the gamified system is fun (Tunga and İnceoğlu, 2016:170). It is necessary to add entertainment elements to the system that will enable the player to use the gamified system voluntarily. It is known that there are different types of entertainment. Lazzaro stated that there are four different types of entertainment: easy fun, hard fun, people

fun, and serious fun (serious fun). Types of entertainment that match player types should not be included in the gamified system.

2.4. MOTIVATIONS AND EFFECTS OF GAMIFICATION

Humans have two types of motivation in terms of the settings and dependent variables as well as physical, intellectual, and emotional developments: intrinsic and extrinsic (Rodrigues, Costa, and Oliveira, 2013:50). Extrinsic motivation emerges when the baby is born and continues until adulthood ages. It refers to the outside motivational approaches such as praise, money, and any other types of rewards. On the other hand, intrinsic motivation develops following adulthood and affects human behaviors based on internal perceptions, happiness, and enjoyment. Marketing for gamification mostly depends on both intrinsic and extrinsic motivation but mostly intrinsic motivation is based on the ages of the players.

Based on the literature regarding the motivation of gamification, two main theories for intrinsic motivation emerged to better explain and understand the human psychology behind it (Reiss, 2000). The first theory of intrinsic motivation, 16 basic desires, was proposed to understand human desires with the dimensions related to business, analyzing and explaining human behaviors such as idealism, honor, social contacts, romance, and eating.

The second intrinsic motivation theory, Self-Determination Theory (SDT), aims to build a framework and a model to better understand how human behaviors are shaped (Prendergast, 2008:202). Social and environmental issues and conditions are driving forces for this theory. From this perspective, it combines cognitive and psychological motivations for relatedness and competence. After all, both theories focus on understanding intrinsic human motivation, its roots, effects, sources, and fundamentals. They also combine what drives human motivation, human desires, social, environmental, and cognitive aspects. Social and cognitive aspects and factors are considered as main issues regarding the marketing of gamification. Determining Appropriate Tools: At the last stage of the model, game dynamics and

mechanics suitable for the target and player types determined in the final stage of the model are included in the gamification, and gamification design is realized.

Zeng, Tang, and Wang (2017:71) study behaviors and participation from the gamification perspectives. They proposed a scientific model to show the impacts of categories of game elements on three types of motivation based on several motivation theories that could affect participation. They collected data to prove their model (Figure 2.10).

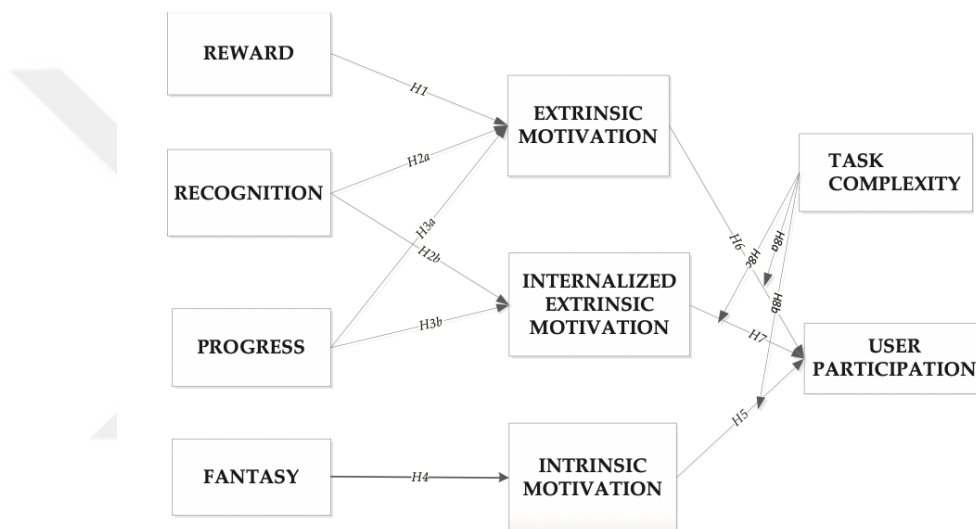


Figure 2.10. Conceptual framework of gamification and motivation (Zeng, Tang, and Wang, 2017:76)

Zeng, Tang, and Wang (2017:71) stated that their findings reveal motivation mechanisms for game elements that clarify the relationship between user behaviors and game elements. Also, it was found which game elements are more effective for the experimental groups studied in the research. The model was also proposed in the context of crowdsourcing, which indicated an interrelationship between motivation, user participation, and game elements.

Several studies have been conducted regarding the relationships between motivation and gamification impacts in several areas (Ozkan and Samur, 2017:857; Demir and Esra, 2020:50; Topal, 2020:115; Ağaoğlu, 2020:1).

Özkan and Samur (2017:858) investigated the impacts of gamification methods on the students' motivation during the learning process. They collected previous studies published in the same content and investigated a content analysis. They used the concepts of gamification, motivation, and experimental when they were searching for keywords in the literature. They ended up with nine studies. The researchers need to note that there are some conceptions and misconceptions about the relationships between gamification and game-based learning. Seven out of nine studies confirmed their hypothesis. Their findings also showed that while enabling students to interact with each other and share their ideas with gamification, their problem solving, critical thinking, and collaborative working skills were also positively affected and improved. As a result, it was concluded that the continuity of the performance of the students was provided for a longer time when they worked in groups in the learning process with gamification. In the analyses made on the students' learning styles, it was determined that visual learners had more positive effects on their learning through gamification.

In a recent study, Ağaoğlu (2020:1) investigated the impacts of gamification applications in the distance English lessons on students' academic success and motivation. The study was designed according to the nested mixed research design. The research study group consisted of 40 students studying the Aviation Management program in the 2019-2020 academic year. Data collection tools used in the study consist of the "English Achievement Test," "Motivational Scale for Learning English," and "Focus Group Interview Form." The findings showed that the gamification applications used in the distance English lessons increased the students' academic achievement at a statistically significant level. Furthermore, according to the results obtained from the retention test, the experimental group's academic achievement and motivation scores in which gamification applications were used were found to be significantly higher than the control group. Also, it was observed that the gamification-based exercises and feedback applications used in the experimental process positively affected the students in general.

2.5. CUSTOMER ENGAGEMENT

Customer engagement (CE), brand attitude, and loyalty intention are three important features for corporates for marketing their products and services. Therefore, it is important to show their impacts and relationships with gamification. This section, for this reason, will show brief reviews and information about behavioral engagement, brand attitude, and loyalty intentions in the context of gamification.

Engagement is described as the state of mind with particular behaviors which create emotional, cognitive, and physical personal development and increase motivation (Bowden, 2009:65). Engagement has been studied in advertisement in terms of customer engagement to stimulate their purchasing behaviors.

Customer engagement (CE) refers to any level of emotional connection between a customer and a brand name (Bijmolt, 2010:350). The customer engagement process could be divided into two forms according to old and new customers. In each cycle, customers follow different steps. New customers could be satisfied with the service or products, and that determines their commitment as negative or satisfaction (delight). If they are not satisfied with the service or product, they probably return it. For old customers or repeat customers, satisfaction is assumed, and trust and involvement exist, which builds effective commitment that eventually turns into loyalty.

Customer engagement (CE) is known as a marketing term that refers to the kinds of interactions that a consumer makes with other consumers, firms, businesses, and specific brands. A full customer interaction is considered desired since it enhances the brand loyalty of the consumers. Companies with extremely busy clients have a devoted fan following that not only buys their products but also encourages others to do the same, creating a virtuous circle.

Customers could communicate with businesses and with one another in different variety of ways. Traditionally, customer engagement was frequently multilateral,

with corporations promoting to customers but not interacting as much with them. With the introduction of the internet, this dynamic has shifted dramatically, and businesses have had to reconsider their approach to client interactions.

Customer engagement has become popular in the literature over the last decade as an important tool in marketing research and customer co-creation in terms of attracting attention to customer purchase alumina and brand loyalty and has received great attention in the advertising and marketing literature (Rather, Hollebeek, Islam, 2019). This is because researchers and practitioners have found that linking customer engagement with better service quality and better customer experiences will result in better value-creating results for customers.

Customer engagement has emerged as an evolution of the relational paradigm that advocates company-customer interaction (Bijmolt et al., 2010). Customer engagement behavior does not have an immediate impact on the company's cash flows as they are often not directly linked to a transaction. However, they do have considerable value in helping firms engage with customers better, increasing brand image, and acquiring new customers, contributing to current and future value generation. In short, customer engagement is the voluntary contribution of customers to a company's product/service offerings at little or no cost.

Major companies in the largescale economy are successfully combining various customer engagement activities with economical based marketing plans (Van Doorn et al., 2010). In latest times, marketing has witnessed a paradigm shift that caused the outdated restrictions between customers and firm tasks have blurred, as well as marketplaces have become progressively connected. The concept of customer engagement brings together the many ways that customer behavior can affect the firm beyond transactions. In short, modern customers are actively contributing to their relationships with brands, corporations, and other stakeholders, as opposed to being passive end-users of company services. Customers are increasingly engaged in customizing firms' offerings and creating shared value through these interactions. The generic customer engagement concept, which has

gained traction in the previous decade, encompasses a wide range of customer activities and behaviors that extend beyond typical buyer/user responsibilities.

Customer management strategies have transformed from analyzing transactions to relationship marketing and from this stage to customer engagement (Kumar, 2013). Up till the early 1990s, executives studied the customer transaction data by using historical customer value, the date of the last transaction ever made, wallet share, transaction density, and financial value of purchases. By the late 1990s and early 2000s, companies gradually switched their attention to relationship marketing. During this period, companies focalized on sustaining lucrative customers by implementing the measurement matrix of customers' lifetime value. However, the recent developments of new technologies like social media platforms have led to the embracement of customer-focused strategies which enhance and maintain customer loyalty for the companies in the long term, increase value-creation through customer interactions which can be determined as customer engagement behaviors. The acceleration in popularity of social media facilitates the interaction between the brand or the company and the customers. Engagement reflects customers' emotional, cognitive, and behavioral involvement with the brand. The engagement of the customers with the online brand communities creates a more connected environment for the customers to their brands, have more confidence in the brands they prefer, are more committed to the brands they choose, have higher brand satisfaction, and have more brand loyalty.

Different approaches to customer engagement have been highlighted in the recent literature. Van Tonder & Petzer (2018) conducted studies on the customer engagement dimensions. The researchers emphasized that the structure of the concept of customer engagement has five dimensions: identification, attention, enthusiasm, giving self, and interaction. Identification refers to how relevant a customer will be to the engagement goal. Customers who identify with a company may perceive criticism of this company as an insult to them, as they see themselves as a part of the company. These consumers also tend to identify with the success of the firm. Enthusiasm is about how excited consumers are for the object that is the

focus of participation. It is believed that enthusiastic consumers are enthusiastic and passionate about their company.

Attention measures the customer's level of focus on the object of participation. Customer-focused customers may want to learn more about it, pay attention to its related issues, and focus heavily on the provider. Giving self is a further dimension of attention. Customers who can fully give themselves to the service or product provider will forget all other things during this interaction. While dealing with the product/service provider, they may feel emotional as time flies. They get into a deep connection with the product/service provider and may find it difficult to get away from them. Interaction determines the extent to which customers are involved in online or offline activities other than purchasing. Customers can talk to other customers about the product/service provider and enjoy communicating with like-minded consumers who also are interested in the product/service provider.

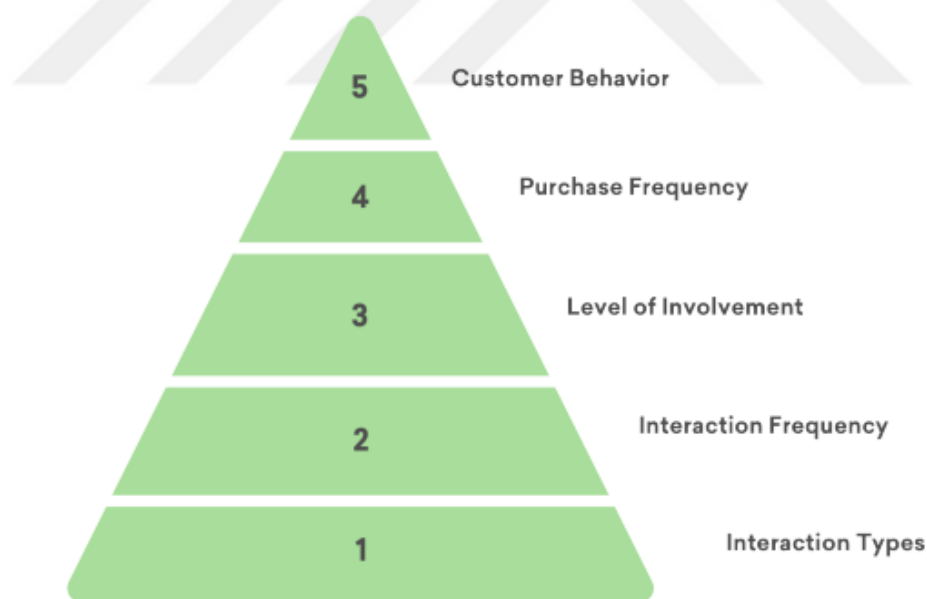


Figure 2.11. The customer engagement pyramid (RPO Masters, 2018)

There have been studies about customer engagement (RPO Masters, 2018; Rather, Hollebeek, and Islam, 2019). Customer engagement is not limited to social media.

There are dimensions for customer engagement that is called the customer engagement pyramid. The first dimension is called interaction types. They included information about what brands say about the product. Customers who are checking for subscription dates for products are examples of this level. The second level is known as interaction frequency related to positive client engagement with mobile applications of the product several times a day. The third dimension is the level of involvement, which consists of situations such as changing passwords and available features. Purchase frequency is another level or dimension when customers are strongly engaged with services or products as making frequent purchases. The last dimension is customer behavior, which means that the customers are so engaged that they advocate products.

Exercises that can be considered in terms of client engagement incorporate going by a company's site and sharing it with others, making substance around a item or item around a company, blogging almost a item, joining social systems of individuals with interface, composing, or calling companies and observing print and tv promoting for a specific company or brand. Clients who are as well active can do all of this; less locked in clients may have a more questionable association with the company.

It is seen that the issue of participation is handled multidimensionally in the literature (Eryilmaz, 2014:207). Gamification is fundamentally used to increase motivation, engagement of the users, and purchasing intention in the marketing and business contexts with the use of game and non-gameplay mechanics (Deterding et al., 2011:10). It utilizes game-like techniques for making people feel being owners and have higher engagement (Pavlus, 2010:43). The success of gamification could be measured by the levels of engagement.

Gamification has game dynamics and mechanics, and such techniques could boost users' engagements by utilizing e-learning processes and related tasks (Muntean, 2011:323). Effective marketing engagement could be created by gamification as

well as educational achievement. In that sense, intrinsic and extrinsic motivation is used to increase the behavioral engagement and motivations of the users.

With a rapid rise in the gamification market, marketing strategies have been implemented to increase market shares by giant companies such as Amazon, Starbucks, and Orbitz (Rasool, Shah, and Islam, 2020:98). They started using game-related experiences for their customers that are more enjoyable and increase customer experience and customer engagement (Leclercq et al., 2020:550).

Gamification and Customer Engagement (CE) are two new topics that have been started being investigated recently in the literature (Rasool, Shah, and Islam, 2020:98). However, it has been stated that gamification positively affects customer engagement in the marketing process by offering game-like experiences for the customers. In this sense, it is important to note that psychological characteristics play an important role in customer engagement via gamification (Covisto and Hamari, 2019:198).

There have been studies that focused on the relationship between gamification and customer engagement in recent literature (Harwood and Garry, 2015:533; Eisingerich et al., 2019:200; Luca et al., 2015:1; Abou-Shouk and Soliman, 2021). Harwood and Garry (2015:533) investigated how the gamification approach used in an online environment could stimulate customer engagement. They noted that there had been major inconsistencies between popular belief and empirical-based studies in terms of virtual brand gamification effectiveness on customer engagement.

Harwood and Garry (2015:539) proposed a new model regarding the relationships among gamified CE mechanisms, CE behaviors, and CE outcomes (Figure 3.2). They stated that gamified customer engagement mechanism includes elements of challenge, tasks, rewards, badges, leaderboard, and win condition. Such a mechanism affects customer engagement behavior with the mutual impacts of customer emotions. At the end of the model, customer engagement outcomes,

including rewards, relationships, loyalty, and subversion, have been affected by customer engagement behaviors and customer engagement emotions.

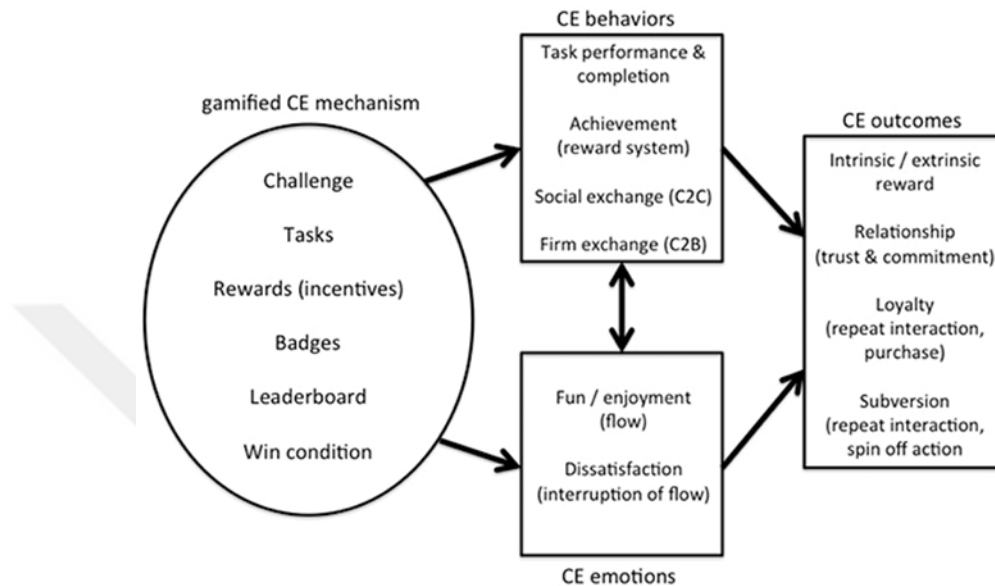


Figure 2.12. The gamified customer engagement model (Harwood and Garry, 2015:539)

2.6. BRAND ATTITUDE

Attitude is described as the perspective that people gain from their experiences from the events in their inner and outer worlds (Erkan, 2004: 142). This point of view is known as a perspective that helps shape their feelings and behaviors positively or negatively. In other words, an attitude can be generated for an event or an object.

Brand attitude, consumers' general evaluations about a brand; It can be expressed as the sum of all the values that form the basis of the brand and the positive and negative feelings and beliefs about the brand. Brand attitude is the basis of consumers' purchasing decisions and brand choices and is a function related to the specific benefits and features provided by the brand. Brand attitude has been described as one of the three basic components of the brand, together with brand utility and brand equity. At the same time, he explained brand attitude as consumers' belief that they will benefit from brand awareness, performance, and experience.

He stated that a strong belief in the environmental performance of the brand would create a positive attitude towards the brand in the consumer.

Brand attitude could be defined as the extensive evaluation of a brand product or a service by consumers (Kempf and Smith, 1998:330). It could also be described as the evaluation and interpretation of a brand in terms of its elements and features (Atigan and Yükselen, 2018:35). Also, consumers' thoughts, ideas, attitudes, and feelings about any brand are also related to brand attitude (Gülsoy, 1999:55).

The technology acceptance model could be used to predict gamification effects on the brand attitudes of the consumers (Ofosu-Ampong: 2020:1728). Recent studies showed that consumers' perceptions affect gamification behaviors. No significant relationship was found between individual engagement intention and brand attitudes and perceived ease of use of gamification. On the other hand, it was found that there is a relationship between perceived social influence and brand attitude.

In parallel to the technology acceptance model, other related factors such as perceived usefulness, perceived enjoyment, and perceived social influence positively affect intention, attitude towards the gamified brand, and consumers' brand attitudes (Yang, Asaad, and Dwivedi, 2017:460). Especially perceived enjoyment is an important factor to predict brand attitudes of the consumers. Few studies have been conducted on the impacts of customer perception of gamification towards the brand attitude.

In a recent study, Yang, Asaad, and Dwivedi (2017:460) investigated the impacts of gamification on brand attitude and engagement intention in the marketing context. In their study, the researchers proposed a model that integrates perceived usefulness, perceived ease of use, perceived social influence, customer engagement, and brand attitude (Figure 3.3).

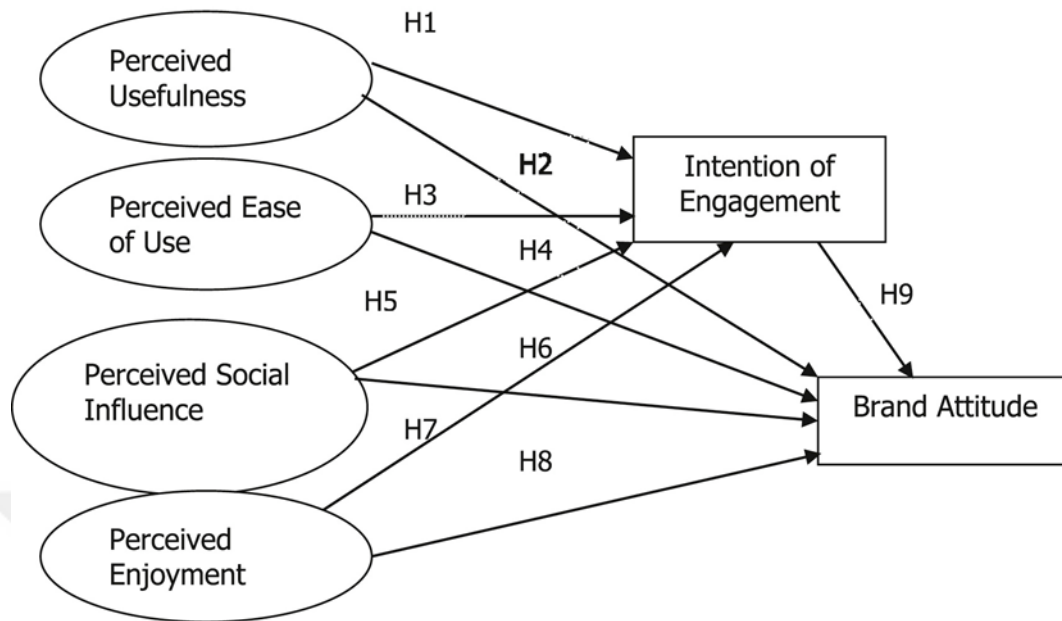


Figure 2.13. The Conceptual Framework of Yang, Asaad, and Dwivedi, (2017:462)

According to the above model, perceived usefulness, perceived ease of use, perceived social influence, and perceived enjoyment are the main factors that influence directly or indirectly brand attitudes. They also affect customer engagement. In conclusion, the research model proposed by the researchers showed that the technology acceptance model is valid and could be used for determining the causing factors of brand attitude in this sense.

Studies (Cakir, 2006:666; Alper, 2011:146; Turhan and Yılmaz, 2007:36) argued that attitude towards the brand consists of two major elements. The first is the cognitive component, which is influenced by beliefs about the brand; the second is the emotional component, which includes emotions such as liking, loving, and feeling close to the brand. If the consumer's knowledge of brand characteristics is low and the information processing effort required to process this information is low, then the relative importance of liking in determining brand attitudes increases. In other words, the role of emotions in shaping brand attitudes becomes more important in low involvement situations.

For consumers, purchasing a product is an action to solve a problem created by a need. Consumers make the purchase decision after doing the necessary research about the product that will meet their needs. There are many factors that affect consumers at the decision-making stage. Among these factors, it can be said that factors such as the brand of the product, positive/negative evaluations of the brand, the image of the brand, and past experiences affect the consumers more dominantly.

The brand is also one of the most valuable assets for a business. In the studies conducted on the brand, it has been stated that more than 70% of the market values of the enterprises consist of intangible elements, and among the abstract elements, consumer perceptions of the brand are the most valuable. In addition, brands, with the promises they offer, ensure that the risks perceived by the consumers before purchasing are minimized, and they also facilitate the purchasing decision. In today's world, many brands offer similar products to the market, and the functional and functional characteristics of the products are similar to each other, which leads businesses to use different instruments to persuade consumers to buy. Therefore, in order to differentiate, businesses also care about stimulants that can appeal to the emotions of consumers.

Brand attitude is the emotional response of consumers to a positive attitude towards a particular brand. Attitude influences not only consumer views of product quality and value, but also their propensity to adopt a specific brand. Companies attract the attention of consumers by differentiating themselves with successful logos and brands and gain the appreciation of consumers with the brand image they will create. Consumers prefer the brand with the image that best fits their image. The brand and logo are important factors in the attitude of consumers towards the brand.

2.7. LOYALTY INTENTION

Customer loyalty could be described from two different perspectives, behavior loyalty and loyalty intention (Wicaksono and Aprianingsih, 2016: 62). Loyalty intention could be basically described as repurchasing intention. Loyalty intention

is related to consumers' performance and purchase intention towards a brand, product, or service. It is described as repeating purchasing frequency for consumers for the behavioral loyalty concept (Brown and Fassett, 1952:480).

Gamification is influenced by the loyalty behaviors of the consumers and users. Gamification is a technique that could boost brand loyalty towards users' attitudes toward products or services such as mobile apps. A recent study (Mattke and Maier, 2021:63) proposed a model that connects social features, frequency, and achievement features of mobile apps regarding brand loyalty (Figure 3.4).

The below figure illustrates three important variables that relate to the high or low loyalty of the consumers. The factors include infrequent/frequent use of social-related features, infrequent/frequent use of immersion-related features, and infrequent/frequent use of achievement-related features. The self-theoretical method was utilized to differentiate between infrequent/frequent use.

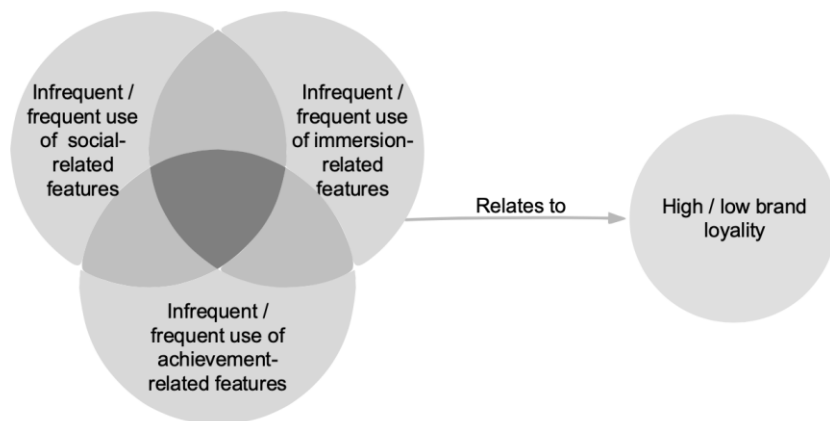


Figure 2.14. Brand Loyalty Configuration Study Model (Mattke and Maier, 2021:63)

The model reveals various patterns in the frequency of users using gamification features that are related to high and low brand loyalty. The findings showed that the frequency with the use of immersion, achievement-related, and social-related issues are related to high brand loyalty in two ways. There are four ways for the same relation for low brand loyalty. Also, it was found that high loyalty needs users to use achievement-related features frequently.

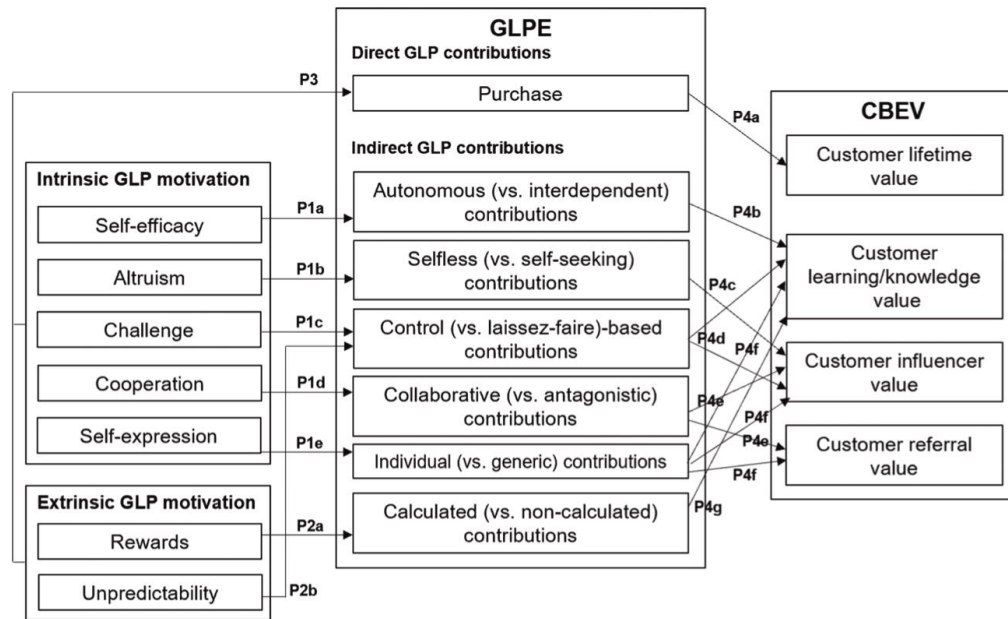


Figure 2.15. Conceptual framework of Hollebeek, Das, and Shukla (2021:2)

Hollebeek, Das, and Shukla (2021:2) investigated how gamified loyalty affected consumer engagement values. They stated that consumer engagement and loyalty programs could be achieved through gamification. They proposed a three-way interface to address this gap. They also conceptualized gamified loyalty program engagements. They also proposed a gamified loyalty program engagement and discussed important implications (figure 3.5). According to their conceptual framework, the gamified loyalty program (GLP) constitutes gamified loyalty program engagement (GLPE), which is related to (influences) the customer brand engagement value (CBEV). Intrinsic GLP motivation has factors that influence GLPE.

The concept of brand loyalty is related to customer loyalty, which is generally used in fast-moving consumer goods, especially in packaged products (Tranberg and Hansen, 1986: 21). As a result of the research, it has been found that consumers show multi-brand loyalty to certain products (Rundle-Thiele and Bennett, 2001:1). Multi-brand loyalty is when the consumer buys from more than one brand that he or she finds acceptable. Multi-brand loyalty is also called split loyalty. It has been

argued that attitudinal measures will not work, especially in established markets, by arguing that purchasing behavior in a specific product has become a habit and the purchasing decision process is not effective.

Brand loyalty is founded on a mutual relationship between the brand and the customer (Chaudhuri and Holbrook, 2001:85). According to previous studies, brand love is related to brand trust and brand loyalty. To be a sought-after and trusted firm in an increasingly competitive climate; acquiring loyal customers and being a passionately loved brand are among the businesses' goals (Kalyoncuolu, 2017:390). Given this significance, it is critical to investigate the effect of brand trust on brand loyalty, as well as if brand love plays a mediating role in the relationship between brand trust and brand loyalty.

Brand loyalty is the relationship between the customer's positive attitude towards a brand and repeated purchasing behavior (Kalyoncuoğlu, 2017:390). Brand loyalty is defined as the strong feeling of commitment that a product purchased by the customer will be purchased again in the future, despite various brands' external factors and marketing efforts. Unlike repeat purchasing behavior, brand loyalty consists of two dimensions: behavioral loyalty and attitudinal loyalty. While the behavioral loyalty dimension expresses the behavior of purchasing a single brand repeatedly among many brands in the same product group; Attitudinal loyalty, on the other hand, refers to the degree of a strong commitment to the brand for repeat purchase due to the characteristics of the brand that the customer is satisfied with (Chaudhuri and Holbrook, 2001, p. 82).

Brand loyalty is the purchase of a brand and its transformation into the behavioral intention. Brand trust is one of the most important precursors of brand loyalty (Chaudhuri and Holbrook, 2001, p. 86). The strength of the relationship between the brand and the client, which is fostered by trust, encourages the creation of brand loyalty.

According to one study, in order to observe a brand's purchasing behavior from a website, trust must first be built against that brand. Then, based on this trust, it is established that purchasing behavior becomes more frequent, and this conduct

demonstrates brand loyalty. According to studies, a satisfied customer's purchasing behavior of the relevant brand is associated to brand trust, which is a stronger concept than brand satisfaction. Therefore, the literature review resulted in that brand trust affects brand loyalty positively.

Although customer loyalty is the main goal to be achieved with relational marketing, it can even be seen as identical to the concept of relational marketing. Relationship marketing is a marketing approach that businesses should prefer because of its ability to create customer loyalty and positively affect the frequency and amount of customers' purchases. However, it should be noted that loyal customers will do much more than just keep buying from a particular business. For example, it was stated that they would recommend the business to others, shop for new products, forgive occasional mistakes, and not shop with competitors. These results reveal that customer loyalty has two dimensions: customer attitude and behavior. Behavior includes material elements such as high or frequent purchases of business products; Attitude is evaluated as the customer's positive opinions about the business and the tendency to continuously prefer the goods and services of that business.

2.8. TECHNOLOGY ACCEPTANCE MODEL

Technology Acceptance Model (TAM) is known as a model or an approach to better describe and understand the technology and its adaption (Yildirim ve Kaplan, 2019:23). As one of the many models produced to explain the adoption of technology, the Technology Acceptance Model was developed by Davis in 1989. Davis' model includes the feature of being the most commonly used model in the studies, especially on the use of information systems (Venkatesh, 2000). TAM aimed to observe people's uses, attitudes, and behaviors against information technologies and to understand the part of the role that information technologies will have in our lives in the future.

TAM has been one of the most common and widely used research models for predicting technology acceptance of users in information technology (IT)

disciplines (Gefen and Straub, 2000:6). Davis originally explored e-mail systems and file editors used at IBM, and they identified perceived ease of use and perceived usefulness. Davis also combined the impacts of the perceived ease of use and perceived usefulness. Davis included 40 MBA students to assess unfamiliar graphics systems. Perceived usefulness pointed out their intentions to utilize this software.

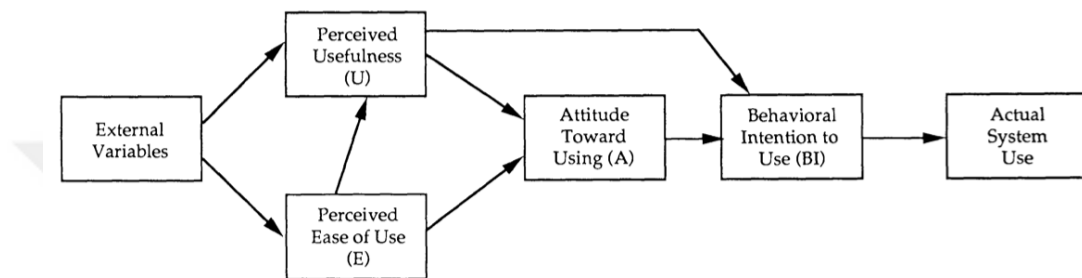


Figure 2.16. Technology Acceptance Model (TAM) (Davis, Bagozzi, and Warshaw, 1989:985)

TAM was described in figure 4.1 as suggested by Davis and his colleagues. According to the TAM, five factors directly or indirectly affect the actual system use. External variables affect perceived usefulness and perceived ease of use. The second factor, perceived ease of use, affects perceived usefulness and behavioral intention to use. The third factor, perceived usefulness, affects behavioral intention to use an attitude toward design. The fourth factor, attitude toward using, affects behavioral intention. They altogether with behavioral intention to use have impacts on the actual system use in the TAM model.

The main purpose of TAM is to solve with the least variables, the behavior of information systems users, and the factors that affect their adoption of technology with a theoretically validated model. TAM consists of six factors that measure their relations with each other. These; convenience/compatibility, perceived usefulness, perceived ease of use, attitude, behavioral intention, and system use (Davis, 1989:320).

The level of users' use of the new technology indicates the use of the system and their acceptance of the technology (Yildirim ve Kaplan,2019:26). The outcome is the individual's decision to refuse or accept to use the system. The stronger the individual's behavioral intention, the more likely the behavior will be performed.) Participation is a result of the provision of inputs to the management information system and usage of the system's outputs by the users.

TAM is known as a solid, well-designed, and reliable model for any prediction of the users' acceptance of technology (Yang, Asaad, and Dwivedi, 2017:460). However, there are some critics regarding especially their social aspects that could possibly affect the prediction of technology acceptance: behavioral intention and behavioral attitudes very particular settings.

Technology Acceptance Model (TAM) could be described in new perspectives based on the gamification methodology, as illustrated in figure 4.1 (Vanduhe, Nat, and Hasan, 2020:21476). Vanduhe and colleagues proposed the figure in 2020 at a conference presentation. They basically described TAM with the inclusion of new variables, including task technology fit, social influence, and social recognition. These new variables affect perceived usefulness and perceived ease of use that impacts attitude, and finally, they all directly or indirectly continuance intention for individuals.

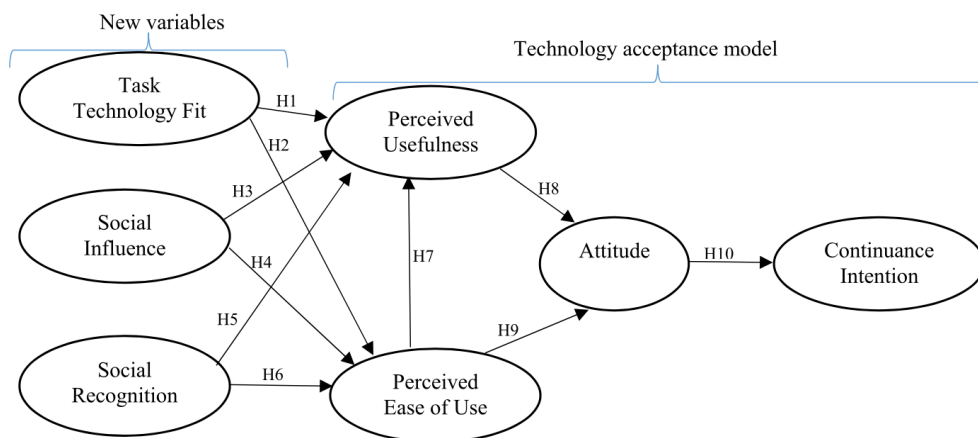


Figure 2.17. Technology Acceptance Model (TAM) (Modified TAM) in Terms of Gamification (Vanduhe, Nat & Hasan, 2020:21476)

The TAM model attempts to anticipate the behavior of a user who has no prior knowledge of a system. The majority of literature research have focused on technology adoption for systems to be used. However, potential users' perceptions may differ from those of actual users. While the usage and intents of individuals using information technologies for the first time and those who use them on a daily basis differ, there may be distinctions between users at home and potential commercial users.

Individuals' behavioral intentions are governed by both attitudes and perceived benefits, according to TAM, and the perceived advantage directly affects the attitude.

Furthermore, TAM states that the intention to engage in the behavior initiates the actual usage behavior. The key variable in TAM is perceived utility in using the determined system, while the second variable is perceived ease of use. Many studies empirically established the success and sufficiency of these two factors in gauging personal intention to use information technologies.

The perceived ease of use and usefulness of information systems have an indirect and positive effect on their utilization. According to Venkatesh (2000), perceived simplicity of use has a direct and positive impact on user acceptance of information technology. However, not all research has reached the same results about the effects of perceived ease of use on the use of information systems/information technology.

CHAPTER THREE

PROPOSED MODEL AND HYPOTHESIS

This chapter briefly presents the proposed model of the thesis and proposed hypothesis for the study.

3.1. THE PROPOSED MODEL

The study model proposed at the beginning of the thesis is presented below. Motivations of Gamification was proposed to show impacts on three dependent variables including customer engagement, brand attitude, and loyalty intention.

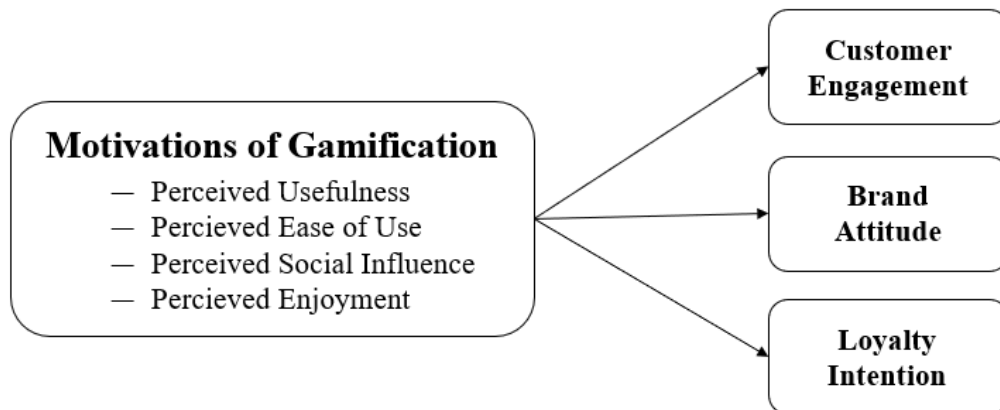


Figure 3.1. The Proposed Model

In regard to the first hypothesis of this study, given the growing popularity and adoption of gamification in the corporate sector, this section will provide practitioners with advice on how to properly deploy and manage gamification to engage customers over time (Hammedi, Leclercq, and Van Riel, 2017).

Customer engagement is the process by that a company develops an association with its customers in order to increase brand loyalty and awareness. Marketing activities, new content created for and posted to websites, and outreach via social

media, mobile, and wearable devices, among other methods, can all contribute to this goal. Gamification can assist organizations in nudging customers toward specific actions by rewarding such behaviors. This enables firms to better plan their future business plans because they have a better approximation of client habits. It may also be used to improve customer and staff engagement methods.

In relation to hypothesis 2 in this thesis study, the urge to interact with a gamified brand is likely to result in favorable opinions about that brand (Yang, Asaad, and Dwivedi, 2017). The study also contributes to the TAM literature by shedding insight on the role of enjoyment in determining engagement intention. Marketers and game designers should pay greater attention to the elements that can generate an appealing perception or experience when playing a game. Fun components of the gamification process, similar to game design, can include competition with other participants, exciting interactivity, or a reward system.

The customer opinion about a product or service revealed through market research is referred to as brand attitude. Branding is critical to the success of any product or service on the market. Gamification raises brand awareness and destination loyalty. Usefulness and enjoyment were investigated as determinants of engagement intention and brand attitude. Ease of use had no effect on engagement intention or brand attitude, and social influence had no effect on engagement intention.

Loyalty Intention refers to the customer's claimed performance and buy intent. In terms of behavioral loyalty, it is measured by the customer's frequency of repeat purchases. Gamification is the use of game mechanics to boost customer engagement and brand loyalty. A gamified loyalty program benefits both buyers and their purchasers by allowing individuals to engage with customers in a current way.

Gamification is used by businesses to increase consumer loyalty, positive word-of-mouth, and engagement (Hypothesis 3). Gamification is the application of game design principles to non-game goods or services in order to stimulate value-creating behaviors such as higher consumption or loyalty.

The hypothesis proposed at the beginning of the thesis were provided below were supported by the data analysis and findings of the study.

H1: Motivations of Gamification (Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment) has an impact on Customer Engagement.

H1a: Perceived Usefulness has a positive impact on Customer Engagement

H1b: Perceived Ease of Use has a positive impact on Customer Engagement

H1c: Perceived Social Influence has a positive impact on Customer Engagement

H1d: Perceived Enjoyment has a positive impact on Customer Engagement

H2: Motivations of Gamification (Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment) has an impact on Brand Attitude.

H2a: Perceived Usefulness has a positive impact on Brand Attitude

H2b: Perceived Ease of Use has a positive impact on Brand Attitude

H2c: Perceived Social Influence has a positive impact on Brand Attitude

H2d: Perceived Enjoyment has a positive impact on Brand Attitude

H3: Motivations of Gamification (Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment) has an impact on Loyalty Intention.

H3a: Perceived Usefulness has a positive impact on Loyalty Intention

H3b: Perceived Ease of Use has a positive impact on Loyalty Intention

H3c: Perceived Social Influence has a positive impact on Loyalty Intention

H3d: Perceived Enjoyment has a positive impact on Loyalty Intention

CHAPTER FOUR

METHODOLOGY

This section of the study describes methodology and study design implemented in this thesis. Initially, the research objectives and research design of the study are discussed in the first sections. Additionally, operationalizations of variables is briefly explained. The study groups and the universe are briefly discussed. In the final sections of the study, data collection tools, research participants, and data analysis process are explained.

4.1. THE RESEARCH OBJECTIVE

The main objectives of this thesis included exploring the relationship between motivations of gamification and some related variables such as customer engagement, brand attitude, loyalty intention and age. Specifically, motivations of gamification have sub scales including perceived usefulness, perceived ease of use, perceived social influence, and perceived enjoyment. The findings of the thesis are expected to contribute to the current literature especially in Turkey. Additionally, various companies and corporate could use the results of this study to better promote their products or services with the use of gamification. Determining motivations of gamification such as perceived usefulness, perceived ease of use, perceived social influence, and perceived enjoyment could help firms and corporates to plan their marketing approaches towards their consumers and potential buyers and their engagement, brand attitude, loyalty intention. Such variables are also explained by ages of the participants.

4.2. RESEARCH DESIGN

This study was designed as quantitative research. Specifically, a descriptive research and analysis was selected for the research purposes. Descriptive analysis

was used to investigate the relationships between motivations of gamification and a group of related variables (customer engagement, brand attitude, loyalty intention) as well as age. A cross-sectional design process was chosen to investigate the relationships at a particular point and time. Cross-sectional research is a type of observational research. In a cross-sectional study, the investigator simultaneously measures the outcome and exposures in study participants. Survey research design was selected to find the relationships between the study variables. Survey research is a form of research methodology in which surveys are used as the major data collection tool. Surveys are employed by researchers in this study design to acquire a better grasp of individual or group viewpoints on a certain subject or issue of interest.

4.3. OPERATIONALIZATION OF VARIABLES

In this section, the study variables are briefly explained with the previous research findings published in the review of literature.

4.3.1. Gamification

Gamification levels are measured in various ways. Dyer (2014) proposed a measurement approach based on the KirkPatrick's Four Level of Evaluation Theory, Kolbs Experiential Learning Theory and Sweller's Theory on Cognitive Load. The framework proposes that for the design of an adequate measurement model, the following method be used:

1. Diagnostic play assessment
2. A scorecard for gamification (Scoring Rubric). Game Performance Assessment Instrument (GPAI)
3. Knowledge Assessment (Pre/Post)
4. Review of Gamification's Performance (GPAR)

These four strategies will serve as the foundation for the development of a comprehensive model that contains the critical aspects for a measurement methodology that can be used to empirically and as a value-added component in any learning environment evaluate the benefits of gamification.

4.3.2. Customer Engagement

Engagement and customer engagement could be measured by some elements and indicators. It could be measured with inventories developed by a group of researchers (Park, 2009; Ahn, Ryu, Han, 2007).

The researcher (Park, 2009) created the instrument based on the study's objectives and previous literature evaluation. The instrument's content validity was determined through a pilot test with 25 persons. Four pieces made up the finished instrument. Part I was created to determine the demographic characteristics of the respondents. The survey asked about academic years, gender, the number of e-learning courses currently being taken, the number of e-learning courses previously taken, e-learning experience from other educational institutions, and the availability of high-speed Internet at home.

Part II's questions were mostly adapted from the three studies for the study's objectives, but they were also based on Davis's previous studies with adjustments to match the unique context of e-learning. The second section was broken into four sections: perceived ease of use (PE), perceived usefulness (PU), attitude (AT), and behavioral intention (BI) (BI). Part III's questions were developed by the researcher to assess e-learning self-efficacy (SE). Two indicators were used to assess it: confidence in locating information in an e-learning system and the degree of required abilities for using an e-learning system. Subjective norms (SN) and system accessibility were divided into two portions in Part IV (SA). On seven-point Likert scales, they were evaluated.

4.3.3. Brand Attitude

There are various types of inventories to measure brand loyalty in the literature. Two of them are purchase intention and brand attitude benefit claim. Jayanti, McManamon and Whipple (2004) investigated two measurement scales. To examine the validity of the attitude toward the brand scales, purchase intention was first assessed using a standard five-point purchase intention scale. Purchase intention was solely measured to ensure that the attitude scales were legitimate. It had nothing to do with the primary experiment. Benefit claims based on brand attitude. In an exertion to make strides authenticity, the advantage claims comprising the brand demeanor scales were taken from a current print notice. Since roughly three striking properties are appeared to be adequate lists of the cognitive structure for brand state of mind, three advantage claims (striking qualities) were evoked from the notice for the cereal: nourishment, taste, and esteem. In spite of the fact that the try was set up to be as thorough as conceivable, its fundamental center was not evaluating the state of mind itself but assessing reactions to the estimations.

4.3.4. Loyalty Intention

According to recent studies, in order to monitor a brand's purchasing behavior from a website, trust must first be built against that brand. Then it's discovered that, as a result of this trust, purchasing behavior becomes more common, and that this conduct demonstrates brand loyalty. According to studies, brand trust is a more powerful notion than brand satisfaction, and the purchasing behavior of a pleased loyal client of the relevant brand is related to brand trust.

According to the findings of the literature research, brand trust has a strong and beneficial effect on brand loyalty. Customer Lifetime Value (CLV) is a metric that measures the total revenue generated by a customer's whole relationship (including future purchases). Such data not only assists in identifying incredibly significant client groups that your firm should prioritize, but it also encourages organizations

to shift their focus from quarterly sales to the long-term health of their customer relationships. This quantity is also important for promoting teams since it allows them to estimate their maximum cost for recruiting new clients and assess how long it will take to repay their investment. Customer loyalty can also be assessed by how often they utilize your services and how engaged they are with your brand. Customer Engagement Score gives each customer a score based on their activity and use of your services. It also enables you to divide consumers into segments (based on demographics, product, account owner, and so on) and assess how each portion performs in comparison to others, as well as identify churn-risk clients within those categories. The data could also be utilized to predict whether your clients will renew, upgrade, or purchase more goods.

4.4. SAMPLING

The participants in the study volunteered to respond to the questionnaire items in the survey. They were selected from individuals who were residing in Istanbul at the time of data collection. A survey was prepared on online platforms in order to employ a convenient sampling method. The participants were invited to participate in the study in social media, e-mail, and various types of invitations.

4.5. DATA COLLECTION TOOLS

The study data were collected via seven data collection tools and a demographic form. Demographic form included some demographic information about the participants including age, marital status, education status, income levels, and gender. Seven questionnaires were utilized to collect data about the variables measured and investigated in this thesis. The items from the data collection tools involved the following questionnaires:

- Perceived usefulness will be measured with three items adapted from Hsu and Lu (2004).

- Perceived enjoyment was measured with four items based on Wu and Liu (2007).
- Brand attitude was assessed with eight items adapted from Yalcin and Demir (2009) and Park (2009).
- Customer Engagement was measured with three items based on Park (2009) and Ahn, Ryu, and Han (2007).
- Loyalty Intention was measured with three items based on Johnson et al. 2006 and Ha
- Perceived Ease of Use was measured by four items based (Davis, 1989; Venkatesh, 2000; Venkatesh & Davis, 2000)
- Perceived Social Influence was measured with five items based on (Hsu, and Lu, 2004)

4.6. THE RESEARCH PARTICIPANTS

A total of 302 participants agreed to participate the study. They responded to the study questionnaire. The questionnaire included several items regarding their demographic features and attitudes in terms of gamification, customer engagement, brand attitude, and loyalty intention.

4.7. DATA ANALYSIS

The study utilized statistical data analysis methodology, particularly the descriptive data analysis, reliability analysis, regression and correlation analysis, and factor analysis. Descriptive data analysis was used to provide the relationships between the sociodemographic factors of the participants including ages, marital status, gender, education status, employment, and monthly income levels. The factor analysis method was used to determine the relationships between the study variables including motivations of gamification (perceived usefulness, perceived ease of use, perceived social influence, and perceived enjoyment), customer

engagement, brand attitude, age, and loyalty intention. Regression and correlation analysis were utilized to reveal the relationships between the study variables. All of the statistical analysis was carried out with SPSS (Statistical Package for Social Sciences) program v.22. Data were initially copied into MS Excel and transferred into SPSS program.



CHAPTER FIVE

DATA ANALYSES AND RESULTS

In this chapter, the collected data were analyzed and findings are briefly discussed. In the first part of the result section, demographic profiles of the participants are presented and explained. In the second part of the result chapter, factor analysis of data analysis between the study variables are presented and discussed. In the following sections, correlation analysis and regression analysis and their related findings respectively explained based on the hypothesis and research questions.

5.1. DEMOGRAPHIC PROFILE

In the first section of data analysis and result, demographic profiles of the participants are presented. The table 5.1 shows the findings from the demographic data form collected. According to the findings, 138 (45.70%) participants were male and 116 (38.40%) were female. Remaining 48 of them did not want to disclose their gender.

Another demographic data form was marital status and the findings showed that most of the participants (N=22, 73.50%) were single and 80 (26.50) were married at the time of the study. Most of them (N=169, 56%) were between the ages of 26 and 33. Only 14 of them (4.6%) were at the ages of between 42 and 49.

Concerning the participants' education levels, 161 (53.30%) were college graduate, 75 (24.80%) were Master graduate and only 8 of them (2.60%) held doctoral degree. Most of them (N=157, 52%) were working in private sector. 42 (13.90%) had their own business or firms; 42 (13.90) were students; 7 (2.3%) were housewife. Final demographic question was regarding their monthly income. The participants indicated that they mostly (30.10%) earn the monthly income of between 4.250 and 6.999 TL. 73 (24.20%) were earning a monthly income of between 7.000 and 9.999 TL. Only 36 of them (11.90%) were earning monthly income higher than 14.000 TL.

Table 5.1. The Demographic Profile of the Participants

Information	Frequency	Percentages
Gender		
Female	116	38.40%
Male	138	45.70%
No Response	48	15.90%
Marital Status		
Married	80	26.50%
Single	222	73.50%
Age (in years)		
18-25	59	19.50%
26-33	169	56.00%
34-41	60	19.90%
42-49	14	4.60%
Education Level		
High School	58	19.20%
University	161	53.30%
Master	75	24.80%
Doctorate	8	2.60%
Working Status		
Public sector	25	8.30%
Private sector	157	52.00%
Own business	42	13.90%
Unemployed/looking for job	29	9.60%
Housewife	7	2.30%
Student	42	13.90%
Personal Monthly Income		
Less than 4.250 TRY	60	19.90%
4.250-6.999 TRY	91	30.10%
7.000-9.999 TRY	73	24.20%
10.000-13.999 TRY	42	13.90%
More than 14.000 TRY	36	11.90%

5.2. FACTOR ANALYSIS

In the second part of the data analysis process, factor analyses were implemented to test the study hypothesis. Factor and reliability analysis were conducted with KMO and Bartlett's test. The findings are presented in the order of related variables.

The KMO test determines the strength of the partial correlation (how the variables explain each other). KMO values close to 1.0 are desired, whereas values less than 0.5 are regarded unsatisfactory. It is recommended that a KMO of at least 0.60 be used for factor analysis. For more details, please see the table below.

The Bartlett's test of Sphericity is used to test the null hypothesis that the correlation matrix is an identity matrix. A correlation matrix that is same suggests that your variables are unrelated and thus unsuitable for factor analysis. A statistically significant test (usually less than 0.05) shows that the correlation matrix is not an identity matrix (rejection of the null hypothesis).

5.2.1. Factor and Reliability Analyses for Perceived Usefulness

Initially, KMO and Bartlett's test findings for the perceived usefulness are presented in the table 5.2. KMO value was 0.680 and this level is considered as good and acceptable. As the Bartlett's test suggested that significance value is 0.000 (less than 0.05), factor analysis could be applied to the perceived usefulness.

Table 5.2. KMO and Bartlett's Test Results for Perceived Usefulness

KMO and Bartlett's Test		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.680
Bartlett's Test of Sphericity	Approx. Chi-Square	175.731
	df	3
	Sig.	0.000

As KMO and Bartlett's test findings for the perceived usefulness proved in table 5.2, factor analysis could be implemented for this variable as KMO being 0.680 and Bartlett's test suggesting being 0.000.

Table 5.3. Factor Analyses Results for Perceived Usefulness

Factor Item	Factor Loading	% Variance	Reliability (Cronbach's alpha)
USF2	0.812	64.142	0.719
USF1	0.800		
USF3	0.790		

According to the results of factor analysis for the perceived usefulness, three items were intact and no subscales of perceived usefulness exists with factor loadings of 0.812, 0.800, and 0.790. And the reliability was calculated as 0.719, which is considered highly reliable.

5.2.2. Factor and Reliability Analyses for Perceived Ease of Use

KMO and Bartlett's test findings for the perceived ease of use are shown in the table 5.4. KMO value was calculate 0.749, considered as acceptable. As the Bartlett's test suggested that significance value is 0.000 (less than 0.05), factor analysis could be applied to the perceived ease of use.

Table 5.4. KMO and Bartlett's Test Results for Perceived Ease of Use

KMO and Bartlett's Test		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.749
Bartlett's Test of Sphericity	Approx. Chi-Square	285.184
	df	6
	Sig.	0.000

KMO and Bartlett's test findings for the perceived ease of use are proved in table 5.5, factor analysis could be implemented for this variable as KMO being 0.749 and Bartlett's test suggesting being 0.000.

Table 5.5. Factor Analyses Results for Perceived Ease of Use

Factor Item	Factor Loading	% Variance	Reliability (Cronbach's alpha)
ESOFU3	0.809	57.944	0.754
ESOFU2	0.798		
ESOFU4	0.738		
ESOFU1	0.694		

According to the results of factor analysis for the perceived ease of use, four items were intact and no subscales of perceived ease of use exists with factor loadings of 0.809, 0.798, 0.738, and 0.694. And the reliability was calculated as 0.754, which is considered highly reliable.

5.2.3. Factor and Reliability Analyses for Perceived Social Influence

KMO and Bartlett's test findings for the perceived social influence are shown in the table 5.6. KMO value was calculate 0.846, considered as acceptable. As the Bartlett's test suggested that significance value is 0.000 (less than 0.05), factor analysis could be applied to the perceived social influence.

Table 5.6. KMO and Bartlett's Test Results for the Perceived Social Influence

KMO and Bartlett's Test		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.846
Bartlett's Test of Sphericity	Approx. Chi-Square	851.634
	df	10
	Sig.	0.000

KMO and Bartlett's test findings for the perceived social influence are proved in table 5.6, factor analysis could be implemented for this variable as KMO being 0.846 and Bartlett's test suggesting being 0.000.

Table 5.7. Factor Analyses Results for the Perceived Social Influence

Factor Item	Factor Loading	% Variance	Reliability (Cronbach's alpha)
SOCINF3	0.861	69.354	0.889
SOCINF1	0.856		
SOCINF4	0.851		
SOCINF2	0.837		
SOCINF5	0.754		

According to the results of factor analysis for the perceived social influence, five items were intact and no subscales of perceived social influence exists with factor loadings of between 0.754 and 0.861. And the reliability was calculated as 0.889, which is considered highly reliable.

5.2.4. Factor and Reliability Analyses for Perceived Enjoyment

KMO and Bartlett's test findings for the perceived enjoyment are shown in the table 5.8. KMO value was calculate 0.821, considered as acceptable. As the Bartlett's test suggested that significance value is 0.000 (less than 0.05), factor analysis could be applied to the perceived enjoyment.

Table 5.8. KMO and Bartlett's Test Results for Perceived Enjoyment

KMO and Bartlett's Test		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.821
Bartlett's Test of Sphericity	Approx. Chi-Square	701.226
	df	6
	Sig.	0.000

KMO and Bartlett's test findings for the perceived enjoyment are proved in table 5.8, factor analysis could be implemented for this variable as KMO being 0.821 and Bartlett's test suggesting being 0.000.

Table 5.9. Factor Analyses Results for Perceived Enjoyment

Factor Item	Factor Loading	% Variance	Reliability (Cronbach's alpha)
ENJ4	0.894	75.520	0.891
ENJ2	0.878		
ENJ1	0.854		
ENJ3	0.849		

According to the results of factor analysis for the perceived enjoyment, no subscales existed with factor loadings of between 0.849 and 0.894. And the reliability was calculated as 0.889, considered highly reliable.

5.2.5. Factor and Reliability Analyses for Customer Engagement

KMO and Bartlett's test findings for the customer engagement are shown in the table 6.10. KMO value was calculate 0.689, considered as acceptable. As the Bartlett's test suggested that significance value is 0.000 (less than 0.05), factor analysis could be applied to the customer engagement.

Table 5.10. KMO and Bartlett's Test Results for Customer Engagement

KMO and Bartlett's Test		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.689
Bartlett's Test of Sphericity	Approx. Chi-Square	227.820
	df	3
	Sig.	0.000

KMO and Bartlett's test findings for the perceived enjoyment are proved in table 5.10, factor analysis could be implemented for this variable as KMO being 0.689 and Bartlett's test suggesting being 0.000.

Table 5.11. Factor Analyses Results for Customer Engagement

Factor Item	Factor Loading	% Variance	Reliability (Cronbach's alpha)
CENG1	0.848	67.861	0.762
CENG2	0.826		
CENG3	0.797		

According to the results of factor analysis for the perceived enjoyment, no subscales existed with factor loadings of between 0.797 and 0.848. And the reliability was calculated as 0.763, considered highly reliable.

5.2.6. Factor and Reliability Analyses for Brand Attitude

KMO and Bartlett's test findings for the brand attitude are shown in the table 5.12. KMO value was calculate 0. 907, considered as acceptable. As the Bartlett's test suggested that significance value is 0.000 (less than 0.05), factor analysis could be applied to the customer engagement.

Table 5.12. KMO and Bartlett's Test Results for Brand Attitude

KMO and Bartlett's Test		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.907
Bartlett's Test of Sphericity	Approx. Chi-Square	1199.190
	df	28
	Sig.	0.000

KMO and Bartlett's test findings for the brand attitude are proved in table 6.13, factor analysis could be implemented for this variable as KMO being 0.907 and Bartlett's test suggesting being 0.000.

Table 5.13. Factor Analyses Results for Brand Attitude

Factor Item	Factor Loading	% Variance	Reliability (Cronbach's alpha)
BRNDATT5	0.815	57.856	0.895
BRNDATT4	0.810		
BRNDATT6	0.788		
BRNDATT3	0.785		
BRNDATT2	0.767		
BRNDATT1	0.756		
BRNDATT7	0.748		
BRNDATT8	0.594		

According to the results of factor analysis for the brand attitude, no subscales existed with factor loadings of between 0.767 and 0.815. And the reliability was calculated as 0.895, considered highly reliable.

5.2.7. Factor and Reliability Analyses for Loyalty Intention

KMO and Bartlett's test findings for the loyalty intention are shown in the table 5.14. KMO value was calculate 0.634, considered as acceptable. As the Bartlett's test suggested that significance value is 0.000 (less than 0.05), factor analysis could be applied to the loyalty intention.

Table 5.14. KMO and Bartlett's Test Results for Loyalty Intention

KMO and Bartlett's Test		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.634
Bartlett's Test of Sphericity	Approx. Chi-Square	198.772
	df	3
	Sig.	0.000

KMO and Bartlett's test findings for the brand attitude are proved in table 5.15, factor analysis could be implemented for this variable as KMO being 0. 634 and Bartlett's test suggesting being 0.000.

Table 5.15. Factor Analyses Results for Loyalty Intention

Factor Item	Factor Loading	% Variance	Reliability (Cronbach's alpha)
LOY1	0.865	64.343	0.708
LOY3	0.813		
LOY2	0.722		

According to the results (table 5.15) of factor analysis for the brand attitude, no subscales existed with factor loadings of between 0.722 and 0.865. And the reliability was calculated as 0.708, considered highly reliable.

5.3. CORRELATION ANALYSES

Correlation is a statistical concept that describes the degree to which two variables are related linearly (meaning they change together at a constant rate). It's a common tool for describing simple relationships without specifying a cause-and-effect link. The direction and intensity of a link between two variables are denoted by a correlation coefficient, abbreviated as *r*. When the *r* value is close to +1 or -1, it

indicates a stronger linear relationship between the two variables. The weaker the correlation, the closer to zero it is. The greater the strength, the closer it is to +/-1.

Correlation analysis was conducted to indicate the relationships between the study variables. The findings are presented in the table 5.16. Pearson correlation was implemented for the study purposes.

Table 5.16. Correlation Analysis Results

	USF	ESOFU	SOCINF	ENJ	CENG	LOY	BRNDATT
USF	1						
ESOFU	.591**	1					
SOCINF	.550**	.465**	1				
ENJ	.437**	.370**	.546**	1			
CENG	.552**	.541**	.529**	.392**	1		
LOY	.568**	.548**	.500**	.309**	.676**	1	
BRNDATT	.675**	.538**	.662**	.560**	.691**	.674**	1

**. Correlation is significant at the 0.01 level (2-tailed).

(USF: Perceived usefulness; ESOFU: Ease of use; SOCINF: Social influence; ENJ: Perceived enjoyment; CENG: Customer engagement; LOY: Loyalty intention; BRANDATT: Brand attitude)

The correlation analysis (table 5.16) shows that the relationships among the study variables were significant (p-value<0.05). The highest correlation coefficient was between brand attitude and customer engagement with 0.691. The lowest correlation coefficient was around 0.309 between perceived enjoyment and loyalty intention.

5.4. REGRESSION ANALYSES

In the final data analysis was regression analysis that emphasize the cause and effect and direction of impacts between the study variables. Regression analysis is a mathematical method for determining which of those factors has an effect. These elements are known as variables in regression analysis. There is your dependent variable, which is the main aspect attempting to understand or predict. Then there are independent variables, which are the elements assumed have an effect on the dependent variable.

5.4.1. Multiple Regression Analysis for Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.

Table 5.17 present the regression analysis for the study model variables including independent and dependent variables. Independent variable are USF, ESOFU, SOCINF, ENJ (*Perceived usefulness; ESOFU: Ease of use; SOCINF: Social influence; ENJ: Perceived enjoyment*) and dependent variable was CENG (customer engagement). R values represent correlation coefficient and all of the independent variables showed medium and higher levels of correlations (above 0.500). When R-squared (coefficient of determination) are considered, USF (perceived ease of use) and ESOFU (ease of use) variables had low levels of explanations. On the other hand, social influence and perceived enjoyment showed medium levels of explanation for customer engagement (CENG).

Table 5.17. Model Summary of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552 ^a	.304	.302	.61992
2	.613 ^b	.375	.371	.58846
3	.651 ^c	.424	.418	.56616
4	.653 ^d	.426	.418	.56604

a. Predictors: (Constant). USF

b. Predictors: (Constant). USF, ESOFU

c. Predictors: (Constant). USF, ESOFU, SOCINF

d. Predictors: (Constant). USF, ESOFU, SOCINF, ENJ

e. Dependent Variable: CENG

(USF: Perceived usefulness; ESOFU: Ease of use; SOCINF: Social influence; ENJ: Perceived enjoyment; CENG: Customer engagement; LOY: Loyalty intention; BRANDATT: Brand attitude)

Table 5.18 presents ANOVA results of regression analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.

According to the findings, Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment positively affects customer engagement. (p-value < 0.05)

Table 5.18. Anova Results of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.449	1	50.449	131.272	.000 ^a
	Residual	115.292	300	.384		
	Total	165.741	301			
2	Regression	62.200	2	31.100	89.810	.000 ^b
	Residual	103.541	299	.346		
	Total	165.741	301			
3	Regression	70.220	3	23.407	73.022	.000 ^c
	Residual	95.521	298	.321		
	Total	165.741	301			
4	Regression	70.583	4	17.646	55.074	.000 ^d
	Residual	95.158	297	.320		
	Total	165.741	301			

a. Predictors: (Constant). USF

b. Predictors: (Constant). USF, ESOFU

c. Predictors: (Constant). USF, ESOFU, SOCINF

d. Predictors: (Constant). USF, ESOFU, SOCINF, ENJ

e. Dependent Variable: CENG

Table 5.19 presents coefficient results of regression analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment.

According to the findings, this table also confirmed that Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment positively affects customer engagement. (p-value < 0.05)

This table is also known as parameter estimates. When Beta value are considered for the regression elements, value of the customer engagement (CENG) could be written with the coefficients (Beta value) of motivations of gamification as follows;

$$\text{CENG} = .233 * \text{USF} + .266 * \text{ESOFU} + .245 * \text{SOCINF} + .057 * \text{ENJ}$$

The above formula could be used to determine the levels or values of consumer engagements according to the motivations of gamification. The highest determinant were perceived ease of use and perceived usefulness.

Table 5.19. Coefficients of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Customer Engagement.

Model		Unstandardized Coefficients		Std. Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.689	.204		8.286	.000		
	USF	.574	.050	.552	11.457	.000	1.000	1.000
2	(Constant)	.746	.252		2.956	.003		
	USF	.371	.059	.356	6.288	.000	.650	1.538
	ESOFU	.425	.073	.330	5.825	.000	.650	1.538
3	(Constant)	.500	.248		2.017	.045		
	USF	.252	.061	.242	4.102	.000	.554	1.806
	ESOFU	.350	.072	.272	4.888	.000	.622	1.607
	SOCINF	.263	.053	.269	5.002	.000	.667	1.498
4	(Constant)	.491	.248		1.979	.049		
	USF	.243	.062	.233	3.912	.000	.543	1.843
	ESOFU	.345	.072	.268	4.791	.000	.619	1.617
	SOCINF	.239	.057	.245	4.198	.000	.567	1.764
	ENJ	.046	.043	.057	1.064	.288	.671	1.490

H1a: Perceived Usefulness has a positive impact on Customer Engagement

H1b: Perceived Ease of Use has a positive impact on Customer Engagement

H1c: Perceived Social Influence has a positive impact on Customer Engagement

H1d: Perceived Enjoyment has a positive impact on Customer Engagement

Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence have an impact on Customer Engagement. However, Perceived Enjoyment is not statically significant. Thus, Hypothesis 1d is not supported.

5.4.2. Multiple Regression Analysis for Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude

R values represent correlation coefficient and all of the independent variables showed medium (0.400-0.500) and higher levels of correlations (above 0.500). When R-squared (coefficient of determination) are considered, USF (perceived ease of use) and ESOFU (ease of use) variables had medium levels of explanations. On the other hand, social influence and perceived enjoyment showed medium levels of explanation for brand loyalty (BRNDATT).

Table 5.20. Model Summary of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.675 ^a	.456	.454	.48724
2	.697 ^b	.486	.482	.47454
3	.767 ^c	.588	.583	.42567
4	.783 ^d	.613	.608	.41289

a. Predictors: (Constant). USF

b. Predictors: (Constant). USF, ESOFU

c. Predictors: (Constant). USF, ESOFU, SOCINF

d. Predictors: (Constant). USF, ESOFU, SOCINF, ENJ

e. Dependent Variable: BRNDATT

Table 5.21 presents ANOVA results of regression analysis between motivations of gamification; Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude.

According to the findings, Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment positively affects Brand Attitude. (p-value < 0.05)

Table 5.21. Anova Results of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59.711	1	59.711	251.513	.000 ^a
	Residual	71.222	300	.237		
	Total	130.932	301			
2	Regression	63.602	2	31.801	141.223	.000 ^b
	Residual	67.330	299	.225		
	Total	130.932	301			
3	Regression	76.937	3	25.646	141.538	.000 ^c
	Residual	53.995	298	.181		
	Total	130.932	301			
4	Regression	80.301	4	20.075	117.761	.000 ^d
	Residual	50.631	297	.170		
	Total	130.932	301			

a. Predictors: (Constant). USF

b. Predictors: (Constant). USF, ESOFU

c. Predictors: (Constant). USF, ESOFU, SOCINF

d. Predictors: (Constant). USF, ESOFU, SOCINF, ENJ

e. Dependent Variable: BRNDATT

Table 5.22 presents coefficient results of regression analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment.

According to the findings, Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment positively affects brand attitude. (p-value < 0.05)

When Beta values are considered for the regression elements, value of the brand loyalty (BRNDATT) could be written with the coefficients (Beta value) of motivations of gamification as follows;

$$\text{BRNDATT} = .353 * \text{USF} + .114 * \text{ESOFU} + .308 * \text{SOCINF} + .196 * \text{ENJ}$$

The above formula could be used to determine the levels or values of consumer engagements according to the motivations of gamification. The highest determinant were perceived usefulness and perceived social influence.

Table 5.22. Coefficients of Regression Analysis Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Brand Attitude.

Model	Unstandardized Coefficients		Std. Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1.543	.160		9.630	.000		
USF	.624	.039	.675	15.859	.000	1.000	1.000
2 (Constant)	1.000	.203		4.916	.000		
USF	.507	.048	.549	10.673	.000	.650	1.538
ESOFU	.244	.059	.214	4.157	.000	.650	1.538
3 (Constant)	.683	.186		3.666	.000		
USF	.355	.046	.384	7.670	.000	.554	1.806
ESOFU	.149	.054	.130	2.757	.006	.622	1.607
SOCINF	.339	.039	.391	8.579	.000	.667	1.498
4 (Constant)	.655	.181		3.623	.000		
USF	.326	.045	.353	7.204	.000	.543	1.843
ESOFU	.131	.052	.114	2.488	.013	.619	1.617
SOCINF	.267	.042	.308	6.428	.000	.567	1.764
ENJ	.139	.031	.196	4.442	.000	.671	1.490

H2a: Perceived Usefulness has a positive impact on Brand Attitude

H2b: Perceived Ease of Use has a positive impact on Brand Attitude

H2c: Perceived Social Influence has a positive impact on Brand Attitude

H2d: Perceived Enjoyment has a positive impact on Brand Attitude

Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence and Perceived Enjoyment have a positive impact on Brand Attitude.

Thus Hypothesis 2 is supported.

5.4.3. Multiple Regression Analysis for Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention

Table 5.23 shows model summary of regression analysis between motivations of gamification and loyalty intention. R values represent correlation coefficient and all of the independent variables showed medium (>0.300) and higher levels of correlations (> 0.400). When R-squared (coefficient of determination) are considered, USF (perceived ease of use) and ESOFU (ease of use) variables had medium levels of explanations. On the other hand, social influence and perceived enjoyment showed medium levels of explanation for loyalty intention (LOY).

Table 5.23. Model Summary of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.568 ^a	.323	.320	.59403
2	.626 ^b	.392	.388	.56379
3	.650 ^c	.422	.416	.55044
4	.651 ^d	.424	.416	.55049

a. Predictors: (Constant). USF

b. Predictors: (Constant). USF, ESOFU

c. Predictors: (Constant). USF, ESOFU, SOCINF

d. Predictors: (Constant). USF, ESOFU, SOCINF, ENJ

e. Dependent Variable: LOY

Table 5.24 presents ANOVA results of regression between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention.

According to the findings, Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment positively affects Loyalty Intention. (p-value < 0.05)

Table 5.24. Anova Results of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.400	1	50.400	142.825	.000 ^a
	Residual	105.863	300	.353		
	Total	156.262	301			
2	Regression	61.224	2	30.612	96.307	.000 ^b
	Residual	95.039	299	.318		
	Total	156.262	301			
3	Regression	65.972	3	21.991	72.579	.000 ^c
	Residual	90.291	298	.303		
	Total	156.262	301			
4	Regression	66.258	4	16.565	54.661	.000 ^d
	Residual	90.004	297	.303		
	Total	156.262	301			

a. Predictors: (Constant). USF

b. Predictors: (Constant). USF, ESOFU

c. Predictors: (Constant). USF, ESOFU, SOCINF

d. Predictors: (Constant). USF, ESOFU, SOCINF, ENJ

e. Dependent Variable: LOY

Table 5.25 presents coefficient results of regression analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment.

According to the findings, Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment positively affects Loyalty Intention. (p-

value < 0.05) except for perceived enjoyment. When Beta values are considered for the regression elements, value of the loyalty intention (LOY) could be written with the coefficients (Beta value) of motivations of gamification as follows;

$$BRNDATT = .060 * USF + .070 * ESOFU + .055 * SOCINF + .042 * ENJ$$

The above formula could be used to determine the levels or values of consumer engagements according to the motivations of gamification. The highest determinant were perceived usefulness and perceived social influence.

Table 5.25. Coefficients of Regression Analysis between Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, Perceived Enjoyment and Loyalty Intention.

Model	Unstandardized Coefficients		Std. Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1.804	.195		9.234	.000		
USF	.574	.048	.568	11.951	.000	1.000	1.000
2 (Constant)	.899	.242		3.717	.000		
USF	.379	.056	.375	6.703	.000	.650	1.538
ESOFU	.408	.070	.326	5.836	.000	.650	1.538
3 (Constant)	.709	.241		2.945	.003		
USF	.287	.060	.285	4.808	.000	.554	1.806
ESOFU	.350	.070	.281	5.028	.000	.622	1.607
SOCINF	.202	.051	.213	3.959	.000	.667	1.498
4 (Constant)	.717	.241		2.977	.003		
USF	.296	.060	.293	4.897	.000	.543	1.843
ESOFU	.356	.070	.285	5.088	.000	.619	1.617
SOCINF	.223	.055	.235	4.026	.000	.567	1.764
ENJ	-.041	.042	-.052	-.973	.331	.671	1.490

H3a: Perceived Usefulness has a positive impact on Loyalty Intention

H3b: Perceived Ease of Use has a positive impact on Loyalty Intention

H3c: Perceived Social Influence has a positive impact on Loyalty Intention

H3d: Perceived Enjoyment has a positive impact on Loyalty Intention

Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence have an impact on Loyalty Intention. However, Perceived Enjoyment is not statically significant. Thus, Hypothesis 3d is not supported.



CHAPTER SIX

DISCUSSION AND CONCLUSION

In this section of the thesis, the results and their explanations are discussed in detailed structure. The findings of the data analysis are discussed and compared with the previous research findings.

6.1. DISCUSSION

The main aim of this thesis was to examine the effects of Motivations of Gamification such as Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, and Perceived Enjoyment on customer engagement, brand attitude, and loyalty intention.

For this purpose, initially, correlation analysis was conducted to examine the relationships between the variables. The results showed that there were positive and significant relationships between motivations of gamification and customer engagement, brand attitude, and loyalty intention.

After variables were found to be correlated, regression analysis among the variables were carried out to find out which direction and how strong the relationship between motivations of gamification and dependent variables of the study (customer engagement, loyalty intention, brand attitude). Regression analysis results showed that motivations of gamification had positive and significant effects on customer engagement, brand attitude, and loyalty intention. In other words, it can be stated that an increase in the level of motivations of gamification also leads to an increase in customer engagement, brand attitude, and loyalty intention, or vice versa.

It is seen that the findings of the study are in line with the literature. For example, Yang, Asaad, and Dwivedi (2017:460) investigated the impacts of gamification on brand attitude and engagement intention in the marketing context. In their study, the researchers proposed a model that integrates perceived usefulness, perceived

ease of use, perceived social influence, customer engagement, and brand attitude. According to results, perceived usefulness, perceived ease of use, perceived social influence, and perceived enjoyment were found significant determinants of brand attitudes and customer engagement. Similarly, in another study conducted by Szyszka (2019), it was aimed to study gamification in marketing context and to examine what aspects of gamification influence engagement and brand attitude. The results of the statistical analysis revealed that perceived usefulness, perceived social influence and perceived enjoyment had a significant influence on intention of engagement. In addition, in the study conducted by Al-Zyoud (2021), it was found that gamification components had positive and significant effects on customer loyalty. It is seen that there are other studies in the literature that concluded that gamification components have positive effects on attitude (Ho, 2017; Prayogo & Sugianto, 2021; Rodrigues et al., 2021; van Berlo, van Reijmersdal & Eisend, 2021), engagement (Pavlus, 2010:43; Deterding et al., 2011:10; Muntean, 2011:323; Harwood and Garry, 2015:533; Eisingerich et al., 2019:200; Luca et al., 2015:1; Feng, Tu, Hsieh, 2020; Abou-Shouk and Soliman, 2021) and loyalty (Chien and Wu, 2015; Mattke and Maier, 2021; Singh, 2022).

On the other hand, Harwood and Garry (2015:533) investigated how the gamification approach used in an online environment could stimulate customer engagement. They noted that there had been major inconsistencies between popular belief and empirical-based studies in terms of virtual brand gamification effectiveness on customer engagement. Our study results provide positive empirical evidence to this discussion regarding the relationship between gamification and customer engagement.

In conclusion, this study was conducted to examine the relationships between motivations of gamification and three dependent variables (customer engagement, loyalty intention, brand attitude) and whether motivations of gamification have impacts on these variables. The proposed hypotheses were supported by the findings from the data analysis. The findings revealed in line with the literature that

motivations of gamification create impacts on multiple levels on customer engagement, brand attitude, and loyalty intention.

6.2. THEORETICAL IMPLICATIONS

Customer engagement (CE), brand attitude, and loyalty intention are three important features for corporates for marketing their products and services. Therefore, it is important to show their impacts and relationships with gamification. As for theoretical contributions, this research contributes to the existing literature and academic knowledge in the areas of marketing and gamification, providing a suggestion for the TAM model to be used in this type of research. It also contributes to a better understanding of the relationship between gamification and marketing, demonstrating that gamification can be used as perception, engagement and loyalty tools. Overall, this study strengthens the empirical evidence in favor of gamification as a powerful determinant to engage, and create loyalty and positive attitudes in customers.

6.3. MANAGERIAL IMPLICATIONS

Although games and game culture have been in our lives throughout human history, recently, gamification has emerged as a popular approach. Gamification lies in the enjoyment and having good times for human beings. Especially video games created steps and interests that eventually turned into game marketing and attracted the nature of people in that sense. Similar to games, gamification could be triggered with the expense of good times and enjoyment embedded in people's nature. From these perspectives, especially gamification with multimedia tools is known best for marketing strategies in the gamification efforts.

This study contributes as a consultation tool for brands, application designers, and marketers when defining engagement strategies, allowing a better understanding of the factors that may or may not influence the public's relationship with the brands and what dynamics they should use in the development of new Gamified marketing

solutions. Various companies and corporates can use the results of this study to better promote their products or services with the use of gamification. Determining motivations of gamification such as perceived usefulness, perceived ease of use, perceived social influence, and perceived enjoyment can help firms and corporates to plan their marketing approaches towards their consumers and potential buyers and their engagement, brand attitude, loyalty intention.

6.4. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study was limited with examining the relationships between motivations of gamification and three dependent variables (customer engagement, loyalty intention, brand attitude). In future researches, the mediating role of customer engagement, loyalty intention, and brand attitude can be examined by adding purchase intention or purchase behavior to the research model as a dependent variable. In addition, it can be examined whether demographic characteristics have a moderator role in the relations between gamification and customer engagement, loyalty intention, and brand attitude.

REFERENCES

- Abou-Shouk, M., & Soliman, M. (2021). The impact of gamification adoption intention on brand awareness and loyalty in tourism: The mediating effect of customer engagement. *Journal of Destination Marketing & Management*, 20, 100559.
- Ağaoğlu, A. (2020). Uzaktan eğitimde oyunlaştırma uygulamalarının üniversite öğrencilerinin İngilizce derslerindeki akademik başarı ve motivasyonlarına etkisi (Master's thesis, İnönü Üniversitesi Eğitim Bilimleri Enstitüsü).
- Albion, P. R. (2001). Some factors in the development of self-efficacy beliefs for computer use among teacher education students. *Journal of Technology and Teacher Education*, 9(3), 321-347.
- Alper, Ö. (2011). Markaya yönelik tutumun sponsorluk sonrası marka imajı ve satın alma eğilimi üzerindeki etkisi. *Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 29(2), 145-174.
- Al-Zyoud, M. F. (2021). The impact of gamification on consumer loyalty, electronic word-of mouth sharing and purchase behavior. *Journal of Public Affairs*, 21(3), e2263.
- Aparicio, M., Costa, C. J., & Moises, R. (2021). Gamification and reputation: key determinants of e-commerce usage and repurchase intention. *Heliyon*, 7(3), e06383.
- Arnould, E. J., Price, L. L. and Malshe, A. (2006). Toward a Cultural Resource-Based Theory of the Customer. In *The Service-Dominant Logic of Marketing: Dialog, Debate and Directions*, 320-33.
- Atıgan, F., & Yükselen, C. (2018). Marka Tutumu İle İmajının Marka Değeri Ve Güveni Yaratılmasındaki Rolü, Tüketicinin Satın Alma Niyeti Üzerindeki Etkileri. *Beykent Üniversitesi Sosyal Bilimler Dergisi*, 11(1), 35-53.

- Bijmolt, T. H., Leeflang, P. S., Block, F., Eisenbeiss, M., Hardie, B. G., Lemmens, A., & Saffert, P. (2010). Analytics for customer engagement. *Journal of service research*, 13(3), 341-356.
- Blohm, I., & Leimeister, J. M. (2013). Gamification. *Business & information systems engineering*, 5(4), 275-278.
- Bonn, M. A., Kim, W. G., Kang, S., & Cho, M. (2016). Purchasing wine online: The effects of social influence, perceived usefulness, perceived ease of use, and wine involvement. *Journal of Hospitality Marketing & Management*, 25(7), 841-869.
- Bowden, J. L. H. (2009). The process of customer engagement: A conceptual framework. *Journal of marketing theory and practice*, 17(1), 63-74.
- Bozkurt, A., & Genç-Kumtepe, E. (2014). Oyunlaştırma, oyun felsefesi ve eğitim: Gamification. *Akademik Bilişim*, 14, 147-156.
- Brown, R. S., & Fassett, J. D. (1952). Loyalty Tests for Admission to the Bar. *U. Chi. L. Rev.*, 20, 480.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81-93.
- Çakır, V. (2006). Reklamların beğenilmesinin tüketicilerin marka tutumlarına etkisi. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (15), 663-687.
- Chien, W. J., & Wu, Y. L. (2015). The Effect of Mobile Gamification on Brand Loyalty.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science*, 35(8), 982-1003.

- Davis, F. D., Bagozzi, R.P., and Warshaw, P.R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace, *Journal of Applied Social Psychology*, 22, 1111-1132.
- Demir, S., & Esra, E. (2020). Değerlendirme Aracı Olarak Oyunlaştırma Platformlarının Kullanımının Öğrencilerin Derse Katılım ve Motivasyonlarına Etkisi. *Asya Öğretim Dergisi*, 8(1), 47-65.
- Deterding, S., Khaled, R, Nacke, L. E. and Dixon, D. (2011). Gamification: Toward a Definition. In *Proceedings of the CHI 2011 Workshop Gamification: Using Game Design Elements in Non-Game Contexts*. ACM, May 2011.
- Deterding, S., Dixon, D., Khaled, R. ve Nacke, L. (2011). From game design elements to gamefulness: defining gamification. In *Proceedings of the 15th International Academic MindTrek Conference*, 9–15.
- Dumlu, S. (2019). Kişilerarası iletişimde Sosyal Etki Ve Uyma bağlamında Okyanus aşırı çalışan Gemi adamları üzerine Bir araştırma (Doctoral dissertation, Marmara Üniversitesi (Turkey)).
- Dyer, R. (2015). A conceptual framework for gamification measurement. In *Gamification in education and business* (pp. 47-66). Springer, Cham.
- Eisingerich, A. B., Marchand, A., Fritze, M. P., & Dong, L. (2019). Hook vs. hope: How to enhance customer engagement through gamification. *International Journal of Research in Marketing*, 36(2), 200-215.
- Erkan, S. (2004). Öğretmenlerin bilgisayara yönelik tutumları üzerine bir inceleme. *Manas Üniversitesi Sosyal Bilimler Dergisi*, 6(12), 141-145.
- Eryılmaz, A. (2014). Üniversite öğrencileri için derse katılım ölçeklerinin geliştirilmesi. *Uşak Üniversitesi Sosyal Bilimler Dergisi*, 7(2), 203-214.
- Feng, W., Tu, R., & Hsieh, P. (2020). Can gamification increases consumers' engagement in fitness apps? The moderating role of commensurability of the game elements. *Journal of Retailing and Consumer Services*, 57, 102229.

- Fresco, B. (2012). I Brand si mettono in gioco. La gamification come strumento di User Engagement.
- Friedkin, N. E., & Johnsen, E. C. (1990). Social influence and opinions. *Journal of Mathematical Sociology*, 15(3-4), 193-206.
- Gefen, D., & Straub, D. W. (2000). The relative importance of perceived ease of use in IS adoption: A study of e-commerce adoption. *Journal of the association for Information Systems*, 1(1), 1-8.
- Goshevski, D., Veljanoska, J., & Hatziapostolou, T. (2017, September). A review of gamification platforms for higher education. In *Proceedings of the 8th Balkan Conference in Informatics* (pp. 1-6).
- Gülsoy, T. (1999). Türkçe-İngilizce, İngilizce-Türkçe Dizinli Reklam Terimleri ve Kavramları Sözlüğü. İstanbul: Adam Yayınları.
- Hamari, J., & Eranti, V. (2011, September). Framework for Designing and Evaluating Game Achievements. In *Digra conference* (Vol. 10, No. 1.224, p. 9966).
- Hammedi, W., Leclercq, T., & Van Riel, A. C. (2017). The use of gamification mechanics to increase employee and user engagement in participative healthcare services: A study of two cases. *Journal of Service Management*.
- Ho, Y. L. (2017). The effect of gamification branded APP on brand attitude and purchase intention (Doctoral dissertation). National Sun Yat-sen University.
- Hollebeek, L. D., Das, K., & Shukla, Y. (2021). Game on! How gamified loyalty programs boost customer engagement value. *International Journal of Information Management*, 102308.
- Hunter, D., & Werbach, K. (2012). *For the win*. Wharton digital press.
- Jayanti, R. K., McManamon, M. K., & Whipple, T. W. (2004). The effects of aging on brand attitude measurement. *Journal of Consumer Marketing*.

- Kalyoncuoğlu, S. (2017). Markaya duyulan güven ile marka sadakati ilişkisinde marka aşkının aracılık rolü: Starbucks markası üzerine bir araştırma. *Journal of Tourism and Gastronomy Studies*, 5(4), 383-402.
- Kempf, D. S. and Smith, R. E. (1998). Consumer Processsing of Product Trial and the Influence of Prior Advertising: A Structural Modeling Approach. *Journal of Marketing Research*, Aug. 35(3), 325-338.
- Kiper, J. (2019). Gamification in SE Courses.
- Koivisto, J., & Hamari, J. (2014). Demographic differences in perceived benefits from gamification. *Computers in Human Behavior*, 35, 179-188.
- Koivisto, J., & Hamari, J. (2019). The rise of motivational information systems: A review of gamification research. *International Journal of Information Management*, 45, 191-210.
- Kumar, V. (2013). Profitable customer engagement: Concept, metrics and strategies. SAGE Publications India.
- Leclercq, T., Poncin, I., Hammedi, W., Kullak, A., & Hollebeek, L. D. (2020). When gamification backfires: The impact of perceived justice on online community contributions. *Journal of Marketing Management*, 36(5-6), 550-577.
- Lee, E. Y., Lee, S. B., & Jeon, Y. J. J. (2017). Factors influencing the behavioral intention to use food delivery apps. *Social Behavior and Personality: an international journal*, 45(9), 1461-1473.
- Lieberoth, A. (2015). Shallow gamification: Testing psychological effects of framing an activity as a game. *Games and Culture*, 10(3), 229-248.
- Luca, G., Fraternali, P., Chiara, P., Giorgia, B., Diniz Dos Santos, A., Roberto, A., & Valentina, R. (2015). A gamification framework for customer engagement and sustainable water usage promotion. In *IAHR World Congress* (pp. 1-14).

- Mattke, J., & Maier, C. (2021). Gamification: Explaining brand loyalty in mobile applications. *AIS Transactions on Human-Computer Interaction*, 13(1), 62-81.
- Mekler, E. D., Brühlmann, F., Tuch, A. N., & Opwis, K. (2017). Towards understanding the effects of individual gamification elements on intrinsic motivation and performance. *Computers in Human Behavior*, 71, 525-534.
- Meloni, W., & Gruener, W. M. R. (2012). Gamification in 2012. Available at: <http://goo.gl/75Ph5>.
- Moscovici, S., & Faucheux, C. (1972). Social influence, conformity bias, and the study of active minorities. In *Advances in experimental social psychology* (Vol. 6, pp. 149-202). Academic Press.
- Moscovici, S., & Personnaz, B. (1980). Studies in social influence: V. Minority influence and conversion behavior in a perceptual task. *Journal of Experimental Social Psychology*, 16(3), 270-282.
- Muntean, C. I. (2011, October). Raising engagement in e-learning through gamification. In *Proc. 6th international conference on virtual learning ICVL* (Vol. 1, pp. 323-329).
- Muslichah, M. (2018). The effect of self efficacy and information quality on behavioral intention with perceived usefulness as intervening variable. *Journal of Accounting, Business and Management (JABM)*, 25(1), 21-34.
- Ofosu-Ampong, K., Boateng, R., Anning-Dorson, T., & Kolog, E. A. (2020). Are we ready for Gamification? An exploratory analysis in a developing country. *Education and Information Technologies*, 25(3), 1723-1742.
- Özkan, Z., & Samur, Y. (2017). Oyunlaştırma yönteminin öğrencilerin motivasyonları üzerine etkisi. *Ege Eğitim Dergisi*, 18(2), 857-886.
- Panagiotarou, A., Stamatiou, Y. C., Pierrakeas, C., & Kameas, A. (2020). Gamification acceptance for learners with different E-skills. *International Journal of Learning, Teaching and Educational Research*, 19(2), 263-278.

- Park, S. Y. (2009). An analysis of the technology acceptance model in understanding university students' behavioral intention to use e-learning. *Journal of Educational Technology & Society*, 12(3), 150-162.
- Pavlus, J. (2010). The Game of Life. *Scientific American*, 303, 43-44.
- Petkov, P., Köbler, F., Foth, M., Medland, R., & Krcmar, H. (2011). Engaging energy saving through motivation-specific social comparison. In CHI'11 Extended Abstracts on Human Factors in Computing Systems (pp. 1945-1950).
- Prayogo, W., & Sugianto, J. (2021). The Influence of Perceived Usefulness, Perceived Ease of Use, Perceived Social Influence, and Perceived Enjoyment Toward Brand Attitude with The Mediation of Intention of Engagement: The Case of Shopee. *iBuss Management*, 9(1).
- Prendergast, C. (2008). Intrinsic motivation and incentives. *American Economic Review*, 98(2), 201-05.
- Rahman, R. A., Ahmad, S., & Hashim, U. R. (2018). The effectiveness of gamification technique for higher education students engagement in polytechnic Muadzam Shah Pahang, Malaysia. *International Journal of Educational Technology in Higher Education*, 15(1), 1-16.
- Rashotte, L. (2007). Social influence. *The Blackwell encyclopedia of sociology*.
- Rasool, A., Shah, F. A., & Islam, J. U. (2020). Customer engagement in the digital age: A review and research agenda. *Current Opinion in Psychology*, 36, 96-100.
- Rather, R. A., Hollebeek, L. D., & Islam, J. U. (2019). Tourism-based customer engagement: The construct, antecedents, and consequences. *The Service Industries Journal*, 39(7-8), 519-540.
- Rodrigues, L. F., Costa, C. J., & Oliveira, A. (2013, July). The adoption of gamification in e-banking. In *Proceedings of the 2013 international*

conference on information systems and design of communication (pp. 47-55).

Rodrigues, I., Lopes, J. M., Borges, A., Oliveira, J., & Oliveira, M. (2021). How Can Gamified Applications Drive Engagement and Brand Attitude? The Case of Nike Run Club Application. *Administrative Sciences*, 11(3), 92.

RPO Masters (2018). Increase customer engagement with Freshdesk Messaging. Retrieved from <https://www.freshworks.com/live-chat-software/what-is-customer-engagement/>

Rundle-Thiele, S., & Bennett, R. (2001). A brand for all seasons? A discussion of brand loyalty approaches and their applicability for different markets. *Journal of Product & Brand Management*.

Saadé, R. G. (2007). Dimensions of perceived usefulness: Toward enhanced assessment. *Decision Sciences Journal of Innovative Education*, 5(2), 289-310.

Schacht, M., & Schacht, S. (2012). Start the game: Increasing user experience of enterprise systems following a gamification mechanism. In *Software for people* (pp. 181-199). Springer, Berlin, Heidelberg.

Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action: A survey. *International Journal of human-computer studies*, 74, 14-31.

Silpasuwanchai, C., Ma, X., Shigemasu, H., & Ren, X. (2016, June). Developing a comprehensive engagement framework of gamification for reflective learning. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems* (pp. 459-472).

Sima, N. & Güleç, U. (2018). Mobil Çağda Oyunlaştırma Uygulamaları Ve Tüketici Tepkileri. *Van Yüzüncü Yıl Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 3(6), 48-65.

- Singh, B. (2022). Investigating Gamification Effect of Frequent Flyer Program on Brand Loyalty in the Aviation Industry. *Indian Journal of Marketing*, 52(1), 23-41.
- Sun, H., & Zhang, P. (2006). Causal relationships between perceived enjoyment and perceived ease of use: An alternative approach. *Journal of the Association for Information Systems*, 7(1), 24.
- Szyszk, N. D. (2019). Gamification in Marketing: Aspects Influencing Intention of Engagement and Brand Attitude. Unpublished Master's Thesis. Universidade do Porto.
- Terrill, B. (2008) My Coverage of Lobby of the Social Gaming Summit available at:<http://www.bretterrill.com/2008/06/my-coverage-of-lobby-of-social-gaming.html>
- Topal, M. (2020). Oyunlaştırma ile zenginleştirilmiş çevrimiçi öğrenmenin başarı, çevrimiçi bağlılık ve öğrenme motivasyonu üzerindeki etkisi. *Ondokuz Mayıs University Journal of Education Faculty*, 36(1), 114-132.
- Tranberg, H., & Hansen, F. (1986). Patterns of brand loyalty: their determinants and their role for leading brands. *European Journal of marketing*.
- Tunga, Y., & İnceoğlu, M. M. (2016). Oyunlaştırma tasarımı. 3. Uluslararası Eğitimde Yeni Yönelimler Konferansı, 267-279.
- Turhan, G., & Yılmaz, C. (2007). Marka Yayıma Stratejisinde Tutum Transferini Etkileyen Faktörler. *Marmara Üniversitesi Sosyal Bilimler Enstitüsü Öneri Dergisi*, 28(7), 35-46.
- van Berlo, Z. M., van Reijmersdal, E. A., & Eisend, M. (2021). The gamification of branded content: A meta-analysis of advergame effects. *Journal of Advertising*, 50(2), 179-196.
- Van Tonder, E., & Petzer, D. J. (2018). The interrelationships between relationship marketing constructs and customer engagement dimensions. *The Service Industries Journal*, 38(13-14), 948-973.

- Vanduhe, V. Z., Nat, M., & Hasan, H. F. (2020). Continuance intentions to use gamification for training in higher education: Integrating the technology acceptance model (TAM), Social motivation, and task technology fit (TTF). *IEEE Access*, 8, 21473-21484.
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of service research*, 13(3), 253-266.
- Venkatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision sciences*, 27(3), 451-481.
- Werbach, K. (2014, May). (Re) defining gamification: A process approach. In *International conference on persuasive technology* (pp. 266-272). Springer, Cham.
- Werbach, K., & Hunter, D. (2012). *For the win: How game thinking can revolutionize your business*. Wharton Digital Press.
- Werbach, K., & Hunter, D. (2015). *The gamification toolkit: dynamics, mechanics, and components for the win*. University of Pennsylvania Press.
- Wicaksono, P. D., & Aprianingsih, A. (2016). The Effects of Service Quality To Loyalty Intention: the Mediating Impact of Customer Satisfaction (Case Study: Rewa Fight Gym). *Journal of Business and Management*, 5(1), 59-69.
- 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.
- Yildirir, S. C., & Kaplan, B. (2019). Mobil uygulama kullanımının benimsenmesi: teknoloji kabul modeli ile bir çalışma. *Kafkas Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 10(19), 22-51.

- Yılmaz, Ö. (2018). Tüketicilerin online alışveriş niyetlerinin Teknoloji Kabul Modeli bağlamında incelenmesi. Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi, 20(3), 331-346.
- Zeng, Z., Tang, J. and Wang, T. (2017). Motivation mechanism of gamification in crowdsourcing projects. *International Journal of Crowd Science*, Vol. 1 No. 1, pp. 71-82. <https://doi.org/10.1108/IJCS-12-2016-0001>



APPENDICES

APPENDIX A. QUESTIONNAIRE IN TURKISH

 İstanbul Bilgi Üniversitesi LAUREATE INTERNATIONAL UNIVERSITIES	Survey no	
	Interviewer	
	Date	

Sayın Katılımcı,

Bu anket çalışması İstanbul Bilgi Üniversitesi, İngilizce İşletme Anabilim Dalı, Pazarlama Bilim Dalı'nda Dr. Öğr. Üyesi Neşenur Altınığne Ekici danışmanlığında yürütülen yüksek lisans tezine veri sağlamak üzere hazırlanmıştır ve katılımcıların görüşlerini almayı amaçlamaktadır.

Lütfen anket süresince “Oyunlaştırma Uygulaması” (Gamification) kavramı ile ilgili olarak alıcısı olduğunuz marka/markaların geliştirdikleri uygulamalar içindeki oyunlaştırmaları düşünün. Aşağıda bazı markaların örnekleri verilmiştir:

- Yemek Sepeti uygulamasında toplanılan puana göre rozet kazanma veya bölge muhtarı olma
- Starbucks uygulamasında kazanılan yıldızlara göre ücretsiz ürün hak etme
- Nike Run Club uygulaması üzerinden arkadaşlarına meydan okuma

Araştırmada elde edilen veriler tamamen akademik amaçlı kullanılacak ve hiçbir kişi/kuruma aktarılmayacaktır. Lütfen var olan durum hakkında kendi düşüncelerinizi belirtiniz, soruların doğru veya yanlış yanıtları yoktur. Anket üç bölümden oluşmaktadır. Katkılarınızdan dolayı teşekkür ederiz.

Ulaş Emre Mahiroğlu

	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
1. Oyunlaştırma uygulaması, kullandığım markayı düşünmemi sağlar.	1	2	3	4	5
2. Oyunlaştırma uygulaması, markanın bendeki bilinirliğini artırır.	1	2	3	4	5
3. Oyunlaştırma uygulamasını, markanın markalaşması açısından faydalı bulurum.	1	2	3	4	5
4. Uygulama ara yüzünü kullanmak fazla çaba gerektirmez.	1	2	3	4	5
5. Uygulamayı kullanmak açık ve anlaşılır.	1	2	3	4	5
6. Uygulamayı kullanmak kolay.	1	2	3	4	5
7. Uygulamanın ara yüzünü, kolay ve anlaşılır bulurum.	1	2	3	4	5
8. Oyunlaştırma uygulaması içinde rekabet edip ödül kazanmayı arkadaşlarım eğlenceli buluyorsa, ben de uygulamaya katılırim.	1	2	3	4	5
9. Oyunlaştırma uygulaması içinde rekabet edip ödül kazanmayı sınıf/iş arkadaşlarım eğlenceli buluyorsa, ben de uygulamaya katılırim.	1	2	3	4	5
10. Sınıf/iş arkadaşlarım oyunlaştırma rekabetine katılırsa, ben de katılırim.	1	2	3	4	5
11. Oyunlaştırma uygulaması içinde rekabet edip ödül kazanmayı tanıdığım insanlar eğlenceli buluyorsa, ben de uygulamaya katılırim.	1	2	3	4	5
12. Tanıdığım insanlar, oyunlaştırma rekabetine katılırsa, ben de katılırim.	1	2	3	4	5
13. Oyunlaştırma uygulaması ilgi çekici.	1	2	3	4	5
14. Oyunlaştırma uygulaması eğlenmemi sağlar.	1	2	3	4	5
15. Oyunlaştırma uygulaması, boş zamanımı değerlendirmek için iyi bir yol.	1	2	3	4	5
16. Oyunlaştırma uygulaması, bana keyifli bir süreç yaşatır.	1	2	3	4	5

17. Kullandığım oyunlaştırma uygulamasına tekrar katılmayı düşünürüm.	1	2	3	4	5
18. Kullandığım oyunlaştırma uygulamasını gelecekte sık sık kullanmayı düşünürüm.	1	2	3	4	5
19. Oyunlaştırma uygulaması eğlenceli olduğu için kullanmaya devam ederim.	1	2	3	4	5
20. Kullandığım markaya yönelik satın alma davranışımı devam ettiririm.	1	2	3	4	5
21. Aynı ürünü başka markalar ücretsiz sunsa bile yine kullandığım markayı tercih ederim.	1	2	3	4	5
22. Kullandığım markayı başka insanlara öneririm.	1	2	3	4	5
23. Oyunlaştırma uygulaması, markaya daha duygusal bir şekilde bağlandığımı hissettirir.	1	2	3	4	5
24. Oyunlaştırma uygulaması, marka hakkında olumlu duygular uyandırır.	1	2	3	4	5
25. Oyunlaştırma uygulaması, markaya olan satın alma eğilimimi artırır.	1	2	3	4	5
26. Oyunlaştırma uygulaması, bu markayı seçtiğim için bana keyif verir.	1	2	3	4	5
27. Oyunlaştırma uygulaması, kullandığım markayı seçtiğim için beni memnun eder.	1	2	3	4	5
28. Oyunlaştırma uygulaması, beni markanın diğer ürün veya hizmetlerini kullanmaya teşvik eder.	1	2	3	4	5
29. Markanın oyununu oynamak ve ödülünü kazanmak güzel bir deneyim.	1	2	3	4	5
30. Kullandığım markayı diğer insanlara öneririm.	1	2	3	4	5

DEMOGRAFİK BİLGİLER

31. Cinsiyetiniz	1> Kadın	2> Erkek	3> Belirtmek İstemiyorum
32. Medeni Durumunuz	1> Evli	2> Bekar	
33. Yaşınız	1> 18-25 2> 26-33	3> 34-41 4> 42-49	5> 50-57 6> 58-65 7> 65 ve üstü
34. En son mezun olduğunuz/bitirdiğiniz okul	1> İlkokul 2> Ortaokul 3> Lise 4> Üniversite	5> Yüksek Lisans 6> Doktora	
35. Çalışma durumunuz	1> Kamuda çalışıyor 2> Özel sektörde çalışıyor 3> İşyeri Sahibi	5> Ev kadını 6> Emekli 7> Öğrenci	

	4> İşsiz / İş Arayan	8> Yaşlılık veya engelli sebebiyle çalışmıyor
36. Kişisel Aylık Geliriniz	1> 4250 TL'nin altı 2> 4250 TL-6999 TL 3> 7000 TL-9999 TL	4> 10000 TL-13999TL 5> 14000 TL ve üzeri



I. ETHICS BOARD APPROVAL

Ethics Board Approval is available in the printed version of this dissertation.

