

THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY

**IMPACT OF WINNING OR LOSING AN ADVERTGAME
ON BRAND ATTITUDE AND PURCHASE INTENTION**

Master's Thesis

TUNCA PATIR

ISTANBUL, 2018

**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**GRADUATE SCHOOL OF SOCIAL SCIENCES
MASTER OF BUSINESS ADMINISTRATION**

**IMPACT OF WINNING OR LOSING AN ADVERGAME
ON BRAND ATTITUDE AND PURCHASE INTENTION**

Master's Thesis

TUNCA PATIR

Supervisor: DR. AYŞEGÜL SAĞKAYA GÜNGÖR

ISTANBUL, 2018

**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**GRADUATE SCHOOL OF SOCIAL SCIENCES
MASTER OF BUSINESS ADMINISTRATION**

Name of the Thesis: Impact of winning or losing an advergaming on brand attitude and purchase intention.

Name/Last Name of the Student: Tunca Patır
Date of the Defense of Thesis: 31.05.2018

The thesis has been approved by the Graduate School of Bahcesehir University.

Title, Name and LAST NAME
Graduate School Director
Signature

I certify that this thesis meets all the requirements as a thesis for the degree of Master of Business Administration.

Title, Name and LAST NAME
Program Coordinator
Signature

This is to certify that we have read this thesis and we find it fully adequate in scope, quality and content, as a thesis for the degree of Master of Business Administration.

Examining Committee Members

Signature

Thesis Supervisor
Dr. Ayşegül SAĞKAYA GÜNGÖR

Member
Dr. Bahar YAŞIN

Member
Dr. Gülberk GÜLTEKİN SALMAN

ABSTRACT

IMPACT OF WINNING OR LOSING AN ADVERGAME ON BRAND ATTITUDE AND PURCHASE INTENTION

Tunca Patır

Master of Business Administration Program

Thesis Supervisor: Dr. Ayşegül Saękaya Güngör

May 2018, 30 pages

In the last decade, parallel with developments in technology sector, reputation and players of games have been increasing. Hence, marketers seek any opportunities to benefit from games by using them as marketing channels. This exploration of new ideas has brought two new concepts into the stage, which are gamification and advergames. Advergames have been one of the hot topics in the last years within marketing sector. Companies have been using advergames in order to increase brand attitude and further increase purchase intention of potential customers to boost sales.

The aim of this study is to find out if winning or losing an advergame affects potential customers' brand attitude and purchase intention who have had a positive or negative experience with the brand already. In the light of this aim, a lab experiment was conducted. An advergame is selected and prior to the game play and after the game play, the attitudes towards the brand and purchase intention were measured to figure out if advergame outcome has an effect on these dependent variables. While analyzing the results, ANOVA is applied in order to differentiate prior and post measurements. Results of the analyses reveal that, losing an advergame has significant negative effects on purchase intention of gamers who have either positive or negative prior brand attitude. Besides, in terms of brand attitude, losing the game significantly influences only the ones, who have negative prior brand attitude and do not affect the brand attitude of gamers with positive prior brand attitude. On the other hand, winning an advergame only significantly

increases the brand attitude of gamers who have negative attitude toward the brand previously. It did not increase the brand attitude further if the gamer has a positive prior brand attitude. In terms of purchase intention, it is observed that, winning an advergame did not have any significant effect on purchase intention. The findings of this study might help marketers reshape their marketing strategies and provide foresights before creating an advergame.

Keywords: Gamification, Advergames, Brand Attitude, Purchase Intention, Brand Experience



ÖZET

REKLAM OYUNUNU KAZANMANIN VEYA KAYBETMENİN MARKA ALGISINA VE SATIN ALMA KARARINA ETKİSİ

Tunca Patır

Genel İşletme Yüksek Lisans Programı

Tez Danışmanı: Dr. Ayşegül Sağkaya Güngör

Mayıs 2018, 30 sayfa

Son on yılda, teknoloji sektöründeki gelişmelere paralel olarak, oyunların ünü ve oyuncuları artmaktadır. Bu yüzden pazarlamacılar, oyunları pazarlama kanalı olarak kullanmanın yollarını aramaktadır. Bu fikir arayışı iki yeni konseptin sahneye çıkmasını sağlamıştır, oyunlaştırma ve reklam oyunları. Reklam oyunları son yıllarda pazarlama sektörünün en ilgi çekici gündem maddelerinden biri olmuştur. Şirketler bu reklam oyunlarını marka algısını kuvvetlendirmek ve satın alma niyetini arttırmak için kullanmaktadırlar.

Bu tezin amacı, reklam oyununu kazanmanın veya kaybetmenin, halihazırda bir marka ile pozitif ya da negatif bir deneyimi olan potansiyel müşterilerin marka algısına ve satın alma kararına etkilerini bulmaktır. Bu amaç ışığında bir laboratuvar deneyi yapılmıştır. Bir reklam oyunu seçilmiş olup, oyunu oynamadan önce ve oynadıktan sonra bu reklam oyunu sonucunun, marka algısı ve satın alma niyeti gibi iki bağımlı değişken üzerindeki etkisi ölçülmüştür. Sonuçlar analiz edilirken, oyun öncesi ve sonrası ölçümlerin farklarını ölçmek ANOVA testi uygulanmıştır. Analizlerin sonucunda, reklam oyununu kaybetmenin, önceden marka hakkında pozitif veya negatif algısı olan oyuncularda satın alma kararına önemli ölçüde negatif etkisi olduğu görülmüştür. Bunun yanı sıra, marka algısı açısından, reklam oyununu kaybetmek sadece daha önceden marka hakkında negatif algısı olan oyuncuları önemli ölçüde etkilerken, daha önceden pozitif marka algısı olan oyuncuları önemli ölçüde etkilememiştir. Diğer tarafta, reklam oyununu kazanmak

sadece daha önceden negatif marka algısı olan oyuncuların marka algısını önemli ölçüde arttırmıştır. Eğer oyuncunun marka hakkında zaten pozitif bir algısı varsa, reklam oyununu kazanmak bunu önemli ölçüde arttırmamıştır. Reklam oyununu kazanmanın satın alma kararına etkileri açısından bakıldığında ise önemli bir ölçüde değişiklik yaratmadığı gözlemlenmiştir. Bu çalışma, pazarlamacıların bir reklam oyununu yaratmadan önce pazarlama stratejilerini gözden geçirmelerine ve öngörü sağlamalarına yardımcı olması amacıyla yapılmıştır.

Anahtar Kelimeler: Oyunlaştırma, Reklam Oyunları, Marka Algısı, Satın Alma Kararı, Marka Deneyimi



CONTENTS

TABLES.....	ix
FIGURES.....	x
ABBREVIATIONS.....	xi
SYMBOLS.....	xii
1. INTRODUCTION.....	1
2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT.....	3
2.1 GAMIFICATION.....	3
2.2 ADVERGAMES.....	5
2.3 ADVERGAME OUTCOME AND ATTITUDE TOWARD THE BRAND IN THE GAME.....	7
2.3.1 Advergames and Brand Attitude.....	7
2.3.2 Advergame Outcome and Brand Attitude.....	8
2.4 ADVERGAME OUTCOME AND PURCHASE INTENTION.....	10
3. METHODOLOGY AND DATA COLLECTION.....	12
3.1 EXPERIMENTAL DESIGN AND PROCEDURE.....	13
3.2 SAMPLING.....	14
3.3 MEASUREMENTS.....	15
3.3.1 Preliminary Analysis.....	15
4. FINDINGS.....	21
4.1 THE EFFECT OF GAME OUTCOME ON GAME PLAYERS’ BRAND ATTITUDE.....	21
4.1.1 Results for the Participants with Positive Prior Brand Attitude.....	21
4.1.2 Results for the Participants with Negative Prior Brand Attitude.....	22
4.2 THE EFFECT OF GAME OUTCOME ON GAME PLAYERS’ PURCHASE INTENTION.....	23
4.2.1 Results for the Participants with Positive Prior Brand Attitude.....	24
4.2.2 Results for the Participants with Negative Prior Brand Attitude.....	25

5. CONCLUSION.....	27
5.1 DISCUSSION.....	27
5.2 MANAGERIAL IMPLICATIONS.....	29
5.3 LIMITATIONS.....	30
REFERENCES.....	31
APPENDICES	
Appendix-1 Survey Prepared for Winner Participants.....	40
Appendix-2 Survey Prepared for Loser Participants.....	43



TABLES

Table 3.1: Sample characteristics.....	15
Table 3.2: Factor Analyses of 2 constructs with positive prior brand attitude and winner participants.....	17
Table 3.3: Factor Analyses of 2 constructs with positive prior brand attitude and loser participants.....	18
Table 3.4: Factor Analyses of 2 constructs with negative prior brand attitude and winner participants.....	19
Table 3.5: Factor Analyses of 2 constructs with negative prior brand attitude and loser participants.....	20
Table 3.6: Factor analyses of brand attitude and purchase intention.....	20
Table 4.1: ANOVA results of brand attitude for participants with positive prior brand attitude.	22
Table 4.2: ANOVA results of brand attitude for participants with negative prior brand attitude.....	23
Table 4.3: ANOVA results of purchase intention for participants with positive prior brand attitude.....	25
Table 4.4: ANOVA results of purchase intention for participants with negative prior brand attitude.....	26
Table 4.5: Hypotheses summary.....	26

FIGURES

Figure 3.1: KFC Advergame used in the study.....12



ABBREVIATIONS

IGA	:	In-game Advertisement
KFC	:	Kentucky Fried Chicken
TV	:	Television
US	:	United States
BA	:	Brand Attitude
PI	:	Purchase Intention
ANOVA	:	Analysis of Variance



SYMBOLS

Cronbach Alpha : α



1. INTRODUCTION

In the last decades, marketers have been seeking new ways to promote their brands rather than using conventional methods. This pursuit along with technological advancement reveals the concept of digital marketing, which is referred as a way of marketing using digital based channels such as mobile phones, tablets, social media and computers to advertise products and services of a brand and to engage the brand with the potential consumers (Karatum 2017).

Introduction and further development of digital marketing brings the idea of gamification into the stage, which encourages engagement by using game-like designs in a non-game content (Klemke et al. 2018, Leaning 2015). On the other side, digital marketing promotes video games as an acceptable marketing tool to transmit their marketing messages by placing in-game advertisements (IGA) within computer games (Hernandez et al. 2004, Nelson 2002). Right after discovering the success of gamification and in-game advertisements on customer engagement, brand awareness, brand attitude brand recall and purchase intention; companies are trying to benefit from the advantage of advergimes, a word produced with combination of advertising and games. An advergime, a mixture of advertising and digital games, is defined as an entertaining digital game specifically designed to promote a brand or service. (Adis and Kim 2013). Advergimes can be placed in companies' websites or as an application for internet and smartphones, and it is found out that nine out of ten of the most valuable global brands in the world use advergimes as a marketing tool for their brands (Interbrand 2011). Frequent usage of advergimes does not mean each advertising game provides a success story for the brand in terms of brand awareness, brand attitude and brand purchase intention. Before implementing an advergime, marketers should be able to understand how to design it and how to get the most desired outcome out of an advergime in order to be successful. Ghirvu (2013) studied an AIDA model for advergimes which stands for attention, interest, desire and lastly action, and summarized how to create a successful advergime by following four steps and how to prevent unexpected results to occur in terms of brand attitude and purchase intention.

The idea and implementation of digital marketing sparkles within the last two decades, therefore prior researchers and marketers are seeking ambitiously to find out alternative inferences and how consumers react to digital marketing tools. Previous studies mostly focused on the congruity between the advergaming and the brand (Peters and Leshner 2013, Gross 2010) and also focused on the effect of advergaming on brand attitude, brand recall and purchase intention (Sagkaya Gungor et al. 2016, Sagkaya Gungor and Ozansoy Cadirci, 2016). Since an advergaming is a type of game by definition itself, there has to be a conclusion at the end of it, either winning or losing, or scoring the highest points within a time limit (Caillois and Barash 1961). This leads marketers and researchers to assess the effect of the outcome of an advergaming in terms of brand attitude (Steffen 2013). Winning and losing a game is defined as a positive and negative occasions (Hill, and et al. 1988). Based on this point of view, the aim of this study is to investigate whether an advergaming's outcome (i.e. winning or losing) has an influence on existing brand attitude and on brand purchase intention. The findings of this study will help marketers understand the importance and effects of an advergaming's outcome, how to design an advergaming and restructure their marketing strategies in practice.

The structure of the paper is as follows: After reviewing the literature and developing the hypotheses, the methodology will be explained in terms of participants, experimental design and measurements. Following methodology, the results are going to be presented and interpreted. Lastly the study will come to an end with discussion of managerial implications and research limitations.

2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Academicians have been focusing on digital marketing in the last decades due to its sparkling success in terms of advertising. IGA can be regarded as the pioneer way of advertising in digital marketing area and its first implementations are product/brand placements within video or online games (Lee and Faber 2007, Nelson et al. 2004). Product and brand placements first started in movies, then the same technique is used in games as game creators offer additional areas for marketers to include their brands/products in video or online games (Yang, and et al. 2006). There are two options for implementing IGA's, which are static and dynamic (Raatikainen 2012). Static IGA, speaks by the definition itself, is placed before the game is launched and cannot be changed after the game is released. The marketers are keen on using static IGA because it does not require a continuous internet connection (Terlutter and Capella 2013). On the other side, dynamic IGA eliminates the disadvantage of static IGA since dynamic IGA can be modified frequently even after the game is launched. However, dynamic IGA requires game players to have a continuous and reliable internet access. There are other considerations in IGA for marketers, either placing it in a prominent or in a subtle manner (Terlutter and Capella 2013).

IGA is turned out to be successful in terms of creating and further increasing brand recall and brand attitude (Chaney et al. 2004) although a recent study shows that they are less effective than advertising in television during sport contests (Kim et al. 2008). This kind of digital marketing does not prevent marketers from confining themselves to just IGA, instead it leads marketers to expand the idea further and come up with a new theory in digital marketing, which is gamification.

2.1 GAMIFICATION

Gamification is a term which is thought to be invented first by a computer scientist Nick Pelling in 2002 in his internet website (Pelling 2011) and according to McGonigal (2011) it has gained so much attention in last years due to technological advancements. The term gamification can be defined as “using game mechanics, aesthetics and game designs to

engage people, to motivate action, to promote learning and to solve problems in a non-game content” (Kapp 2012, p. 10). Another definition is given by a prior study, the use of game-like elements to increase non-game products and services by fostering greater customer value and by encouraging value-added behaviors such as increased usage of the product or service, greater loyalty, engagement, or product advocacy (Blohm and Leimeister 2013; Zichermann and Cunningham 2011). It is important to mention that the concept of gamification does not mean directly creating games. It refers to creating a scheme by using game mechanics and providing a reward out of it. It is also described as a business strategy tool (Werbach and Hunter 2012) and levelling up or earning badges by using an application or buying a product or service can be given as examples of gamification. The usage of gamification can be within the firm in order to increase employee satisfaction and commitment or outside of the firm to increase customer loyalty or brand attitude (K. Robson et al. 2015). There has been several studies in which gamification is linked to enhance learning process and also it is used in sectors such as healthcare, transportation, government and education (K. Robson et al. 2015). In this paper, the focus of use of gamification will be on marketing, being more specific, on advertisement.

The marketers are using gamifications in order to increase customer engagement with the brand and to educate consumers and employees about the brand and product itself. Previous studies found out the gamification provides intrinsic motivation of consumers with the brand or product (Domínguez et al. 2013), increased engagement with the brand or product (Witt et al. 2011; Ahn and Dabbish 2008) and a better experience for consumers (Gnauk et al. 2012). These findings are crucial for marketers because it enables brands to create long lasting relationships with the potential customers which is an important aspect for company’s sustainability and in parallel with that, these findings will help to generate more revenue for companies.

Implementation of gamification does not guarantee success all the time, it requires repetition of desired consequences in order to be successful. Since positive and negative reinforcements and emotions drive humankind’s behavior (Skinner 1938), positive reinforcements and emotions lead to automatic behavior processes and construct or reshape habits (Duhigg 2012). A successful gamification implementation requires to

affect the behavior and habits in a positive manner by providing rewards and positive emotional responses. If gamification fails to create those positive feelings, it can hit back and can cause loss of motivation or commitment of an employee within the company or in terms of customers, it can affect brand attitude negatively. Therefore it is important to use gamification wisely in order to be successful.

The usage and success of gamification implementations arrest marketers' attention and they simply try to expand the idea further. They saw that the perception and implementation of game-like mechanisms can increase the chance of customer engagement with the product or service and started to create games directly associated with the brand. That is how advergAMES get on the stage out of the gamification concept.

2.2 ADVERGAMES

AdvergAMES are a type of newly invented marketing strategies in recent years and the word itself is originated from advertising and digital games. An advergAME is "a computer game or an online game specifically created to act as an advertisement to promote a brand or a service" (Kretchmer 2005). According to Nelson (2002), game players are summoned to participate actively and to interact with advertising of a company in a fictionally created environment in order to achieve their marketing milestones by using video games, computers, tablets or mobile phones. AdvergAMES are the latest marketing tools in high demand in terms of digital marketing in order to attract customers to let them play in branded environments (Vashist 2015). Businesses are keen on referring advergAMES as a type of embedded advertising (Wade 2004), and use them to engage with their potential customers (Vashist and Sreejesh 2015b). AdvergAME usage as a marketing tool is very common in these days and nine out of ten of the most valuable global brands use advergAMES as a marketing tool for their brands (Interbrand 2011). In parallel with that, strong and important brands such as Burger King, Coca-Cola, Gillette, KFC, Gatorade, Lego, and Honda have already invested in advergAMES (Shields 2006). Day by day, the usage of advergAMES is increasing as technology and digital environment gains importance in people's daily lives. Lastly, according to Radd (2007), most of the companies believe that it has become almost an obligation to create branded advergAMES since this type of advertising has become in fashion in the recent years.

The characteristics of an advergame can be listed as, they are easy to download, access and play and they offer a short playing time -especially during spare times- with quick fun (Kuittinen et al. 2007). Therefore the game players are looking for shorter time as a playing time and for a reward such as badges or promotions at the end of the game, compared to the complex and old fashioned gaming environments (Kuittinen et al. 2007; Lazzaro 2008). It is important to keep that in mind that the game players primarily play advergames to entertain rather than informing themselves (Lee and Youn, 2008). Therefore, besides from classical advertisement procedures, the brand should be an integral part within the game instead of giving a short or labeled message at the beginning or at the end of the game (Waiguny et al. 2013). Another consideration might be the fit between the game itself and advertised brand. Fit level between the game and advertised brand should be high in order to get high rates of effectiveness from an advergame (Wise et al. 2008). Advergames have a better impact on customers compared to traditional advertising tools (Wade 2004) because of the advantages they have, such as retaining customers' attention for longer times (Edwards 2003), easy to adjust, ability to be used as a viral marketing tool and effectiveness in terms of costs (Ipe 2008). In addition to that, an advergame offers customers engagement with the game and brand itself rather than viewing passively a TV content (Nicovich 2005). In other words, in an advergame, potential or existing customer's role evolves from a passive spectator to an active player since the customer can interact with brand or product itself within the game (Buckner et al. 2002). In recent years, the interest on playing platform of advergames are shifting to mobile phones and tablets since the usage of social media tools and applications are boosting.

There are still ongoing debates whether the advergames turn out to be successful or not. There are so many successful examples of implementation of advergames, Burger King observed an increase of 40 percent in profits as a result of its advergame (Wilson 2007). On the other side, in Farmville game in Facebook, Cascadian Farm (an existing US company), has increased its brand awareness using that advergame by 550 percent since it allows growing Cascadian Farm products within the game (McBurney 2011). In terms of average time spent on the internet address, advergame of Dunkin Donut was able to expand the time of a surfer spent on the website to an average of four minutes.

Summarizing, the interest and usage frequency of advergames have been increasing (Hudson and Hudson 2006). Playing a fun game and using the game as an advertisement tool catches potential customers' attention as a result of several studies. Although the interest on advergames is high, the effects of winning or losing an advergame is not commonly studied. The correlation between the outcome of the game and consumer behavior should be taken into consideration because the outcome might have an effect on consumer attitudes and consumer purchase intention (Gardner and Vandersteel 1984). Therefore this study is going to make a further exploration about advergames and how they affect brand attitude, mainly focusing on the outcome of the advergame as a win or lose, and purchase intention while taking prior experience with the brand into account.

2.3 ADVERGAME OUTCOME AND ATTITUDE TOWARD THE BRAND IN THE GAME

2.3.1 Advergames and Brand Attitude

Brand experience in this research is defined as an experience of the customer with the brand with the help of one of the five senses. As a result of this negative or positive experience, a negative or positive brand attitude is expected to occur in customer's mind. Brand attitude is one of the hot topics that are studied in the marketing literature since positive and negative reinforcements and emotions drive humankind's behavior (Skinner 1938). Therefore, it is crucial for companies to trigger positive brand attitude in consumers' minds in order to make their products seem attractive and in parallel with that it is important for the sustainability of the company as mentioned earlier in this study.

In the marketing literature, the relation between advergames and attitude toward the brand is studied frequently (Vashist 2015, Taylor et al. 2015, Redondo 2012 and Wise et al. 2008). Most of the studies focus on the characteristics of the advergame and its effects on brand attitude (Paek et al. 2014, Rifon et al. 2012 and Calin 2010). A recent study has investigated the effect of entertainment level within an advergame with the brand attitude and found out there is a positive relationship between the level of entertainment and attitude toward the brand in the game (Parrefio et al. 2013). On the other hand, Gross (2010) studied the effect of congruence between the game and the product on brand recall

and consumers' attitude toward the brand for advergames. The findings of the research concluded that advergames which are congruent with the product have led a higher brand recall but to a negative brand attitude. Therefore it is important to keep in mind that there is a possibility of resulting in a worsened brand attitude although congruence provides higher brand recall. Also, a recent study shows that, if the game flow does not prevent players to reach the goals within the game, the players will be less likely to come up with negative feelings about the brand (Hernandez et al. 2004).

Besides these studies, as companies and marketers looking for additional ways to attract customers, Holzwarth et al. (2006) figured out that using an avatar associated with the product itself increases the brand attitude and together with that purchase intention. This inference is further investigated by Choi et al. (2015) by exploring the effect of the usage of a character in an advergame on brand attitude. The results imply that congruence between a character used in an advergame and product type might increase the brand attitude but it also depends on the cultural background of the gamer.

Studies about advergames regarding their effects can be elaborated as digital marketing tools and it becomes a fact that advergames are gaining reputations. These findings lead this thesis to focus further on advergames, taking the advergame outcome into account. Therefore hypotheses of this paper are going to focus on advergames' outcome effects.

2.3.2 Advergame Outcome and Brand Attitude

As highlighted above, advergames and brand attitude connection has caught the attention of researchers strongly. However, the effect of outcome of an advergame has been pretty much disregarded. Due to characteristics of a game itself, there has to be an outcome, either winning or losing and players always seek to win at the end (Caillois and Barash 1961). This should not mean that every advergames should be designed so easy for players in order to let them win at the end. There are a lots of considerations which are to be carefully consulted while creating an advergame. According to the theory of flow experience, there has to be a certain level of difficulty which will allow players to experience the flow within the game to stay concentrated mentally and not to lose focus (Schneider and Cornwell 2005). Since the game outcome is highly dependent of game

players' individual performance, the effects of an advergame's outcome is expected to have an impact on customers' behaviors. Another study found out that the fair amount of difficulty in games provides a higher brand attitude on game players compared to the ones which challenge the game players more or less (Waiguny et al. 2012).

In terms of advergame outcome, there are few amounts of studies available within the existing literature. Steffen, Mau and Schramm-Klein (2013) explored the effect of an advergame outcome on players in terms of brand attitude and players' mood. The findings of the study were remarkable since winning the game has a positive impact on brand attitude and game perceptions but on the other side there is not any significant evidence that losing the game affects the brand attitude negatively. In addition to that, there is not any correlation observed between winning the game, in other words the outcome of the game, and the mood of the winning players after the game, as the mood of the players do not increase significantly after winning the game. However the losers among game players felt worse after playing the game. Another study was made Ghosh (2016) about the game outcome, tried to examine the effect of recurring wins or loses in IGA on game players' motivation which is measured in terms of 'regulatory focus', a motivational form that explains people's avoidance and approach behavior as part of any tasks to be accomplished. Unlike the findings of Steffen, Mau and Schramm-Klein (2013), this research concluded that the positive mood affects the evaluation of IGA itself and the brands within it (Ghosh 2016).

Despite the differences in the results of the previous studies, winning a game is described as a positive event (Ward et al. 1988) and taking prior literature into account, the following hypotheses are suggested:

H1: If the outcome of the advergame is a win, the brand attitude of the game player, with positive prior brand attitude, becomes more positive.

H2: If the outcome of the advergame is a loss, the brand attitude of the game player, with negative prior brand attitude, becomes more negative.

H3: If the outcome of the advergame is a win, the brand attitude of the game player, with negative prior brand attitude, turns out to be positive.

H4: If the outcome of the advergame is a loss, the brand attitude of the game player, with positive prior brand attitude, turns out to be negative.

Following exploring the effects of an advergame's outcome on brand attitude, the focus will shift to the relation between the outcome of an advergame and purchase intention of potential customers, in other words, game players.

2.4 ADVERGAME OUTCOME AND PURCHASE INTENTION

Purchase intention is one of the most important research topics within the existing literature because marketers shape their marketing strategies in order to maximize sales in the company and attain sustainability of the company. Therefore measuring purchase intention and factors affecting purchase intention positively or negatively will remain as one of the trending research areas within marketing era. The main aim of advertising of a company is to engage target customers with the product and to transmit information about what they sell, so that they become familiar with the products and compare them with the substitute or competing ones. The last stage of marketing strategy is to let them purchase the favored product among available options, which means triggering the purchase intention (Jovanovic et al. 2016). In terms of purchase intention, it is found out that product interest has a significant positive effect on the level of purchase intention among social game players if the game players are already familiar with the product (Zhu and Chang 2015). This shows that if the potential customers are aware of the product, there is an opportunity for marketers in order to trigger the purchase intention positively using social games and advergames. Another study evaluated the role of advergames on purchase intention by summarizing that the attitude toward advergames are positively correlated with the potential customers' purchase intention (Goh and Ping 2014).

Advergames are used to increase customer engagement with the product as mentioned earlier. The underlying reason behind that, potential customers become more intended to purchase the product if interactivity with the product increases (Cho and Leckenby 1999). The same topic is studied by Nelson (2005) and also concluded interactivity with the product affects positively the purchase intention. The effect of advergames with brand interactivity is significantly positive in boosting purchase intentions of game players according to Lee, Park and Wise (2014). Therefore, it is important for marketers to keep in mind, using advergames increases potential customers' interaction level with the product and it can provide higher levels of purchase intentions.

One of the main aims of this study is to focus on how advergame outcome influences potential customers' purchase intention. In the light of the existing literature, the hypotheses suggested are as follows:

H5: If the outcome of the advergame is a win, the purchase intention increases among the game player who has positive prior brand attitude.

H6: If the outcome of the advergame is a loss, the purchase intention decreases among the game player who has negative prior brand attitude.

H7: If the outcome of the advergame is a win, the purchase intention increases among the game player who has negative prior brand attitude.

H8: If the outcome of the advergame is a loss, the purchase intention decreases among the game player who has positive prior brand attitude.

The paper continues below with the methodology. The structure of the experiment, participants and procedure are going to be explained in detail.

3. METHODOLOGY AND DATA COLLECTION

An online existing advergame placed on a website was used in order to test the hypotheses. Selection of the game process was not an easy task, since there must be certain conditions which should be evaluated carefully. The available advergames through the internet were narrowed to five options (Kentucky Fried Chicken (KFC), Gatorade, Lego, Volvo and Efe Raki) and out of these five games, the advergame of KFC was selected. While selecting the most available option, certain characteristics were evaluated: First, the game itself represents an advergame, which means it is created for a brand to promote its product. Second, this advergame offers a short time play with quick fun and the game itself should not be specific to a gender, meaning that the results should not be biased because of the gender preferences. Third, it is easy to play with a limited level of challenge, which is time limit of 30 seconds. Lastly and most importantly; the brand KFC is a well-known brand among the sample, which comprises of students, and it is not challenging to find people with positive and negative prior brand attitudes. The most important criteria was the last one, because it is not easy to find a balanced brand attitude among people about a specific brand. Therefore the KFC advergame was selected to test the hypotheses in this study in order to get the best comparable results.

Figure 3.1: KFC Advergame used in the study



The KFC advergame is designed as a very user friendly game. The aim of the game is to reach the maximum point within 30 seconds. The gameplay is as follows: There is a bucket filled with a chicken pieces, which is a signature product of KFC, and these pieces should be dragged to the mouth of the well-known KFC brand logo (an illustration of Colonel Sanders, the founder of KFC) to let it eat the chicken pieces (as illustrated in Figure 3.1 above). In the original game, all chicken pieces in the bucket must be finished to win the game as soon as possible to get the highest points within 30 seconds. However the game outcome was manipulated in order to get a balanced win and lose rate among the game players, which is going to be explained in the following experimental design section.

3.1 EXPERIMENTAL DESIGN AND PROCEDURE

The hypotheses of this study were tested in a 2x2 factorial (prior brand attitude: negative vs. positive and game outcome: winning vs. losing) experimental within subjects design. At the beginning, two surveys were created to share with the participants, one for winners and one for losers. This was done in order to get the balanced level of winners and losers. The outcome of the game was manipulated in both cases, meaning that winning and losing conditions were set beforehand regardless of their individual performance and the outcome of the game itself. The surveys were distributed equally among participants. In both conditions, the participants were asked to play the KFC advergame for at least 3 minutes. In the winning condition, the participants were categorized as “winners”, if they managed to reach a score of 200 points within 30 seconds, which was regarded as very easy to accomplish. That means, the participants should be able to let the logo eat at least 4 pieces of chicken, which can be accomplished within 5-10 seconds easily.

On the other side, in the losing condition, if the participants did not see any reward given by KFC at the end of the game even they managed to deplete the bucket within 30 seconds, they were categorized as “losers”. The manipulation here was that the game itself did not give any reward at the end of the game in any cases even the individual performs the highest level possible. Therefore those participants in this condition had no chance to win the game.

The procedure was carried out so, that the participants of this experiment were invited to a laboratory of a university in four different groups. Each participant were randomly assigned to any one of the treatment groups. Two groups of students were given the survey prepared for winning condition (winners $n = 98$) and the other two groups of students were given the survey prepared for losing condition (losers $n = 92$). They were asked to fill the survey prior playing the game and in both cases, the participants were not told about the conditions to win or lose the game before playing it. The first part of the survey was filled out before the game had been played and consisted of preliminary questions about the brand attitude and purchase intention toward the brand. At the end of the first task, participants were kindly asked to play the game for at least 3 minutes. After 3 minutes, the participants were mentioned to stop playing and complete the last part of the survey, which has the same questions about the brand attitude and purchase intention toward the brand as in the first part and further questions about demographics. After the last stage of survey, the experiment was completed and the participants were thanked for their contribution.

3.2 SAMPLING

The sample consisted of the university students which are the main target of the advergames (Cauberghe and DePelsmacker 2010; Sagkaya Gungor et al. 2016). They all were invited to the laboratory within university campus. A total of 190 people participated in this experiment. In terms of gender, 103 of 190 participants (54 percent) were male whereas 87 (46 percent) of them were female. The average of age of the participants was 22.5, ranging from 18 to 30 with a standard deviation of $SD = 2.33$. The educational background of all participants were similar, meaning that they are on-going university students. Lastly, 76 percent of whole participants claimed that they spent 6 or more hours on internet within a week and in terms of playing games, 67 percent of the whole experiment population spent less than an hour for playing games in a week. To conclude, the participants of this experiment had similar characteristics which prevented results to be biased.

Table 3.1 below summarizes the characteristics of the participants.

Table 3.1: Sample characteristics (n = 190)

		N	Percentage
Gender	Male	103	54%
	Female	87	46%
Hours spent on internet	Less than an hour	5	3%
	1-3 hours	19	10%
	4-6 hours	22	12%
	6 or more hours	144	76%
Hours spent on games	Less than an hour	128	67%
	1-3 hours	13	7%
	4-6 hours	13	7%
	6 or more hours	36	19%

3.3 MEASUREMENTS

In both surveys, all measures, i.e., brand attitude and purchase intention, were measured using 5-point Likert scales (anchors: 1 = totally disagree; 5 = totally agree). In terms of brand attitude, the question to measure brand attitude was designed with six dimensions as previously stated by Batra and Ahtola (1991) and also used by Steffen et al. (2013), which were good, valuable, wise, joyful, healthy and tasty. On the other side, purchase intention measurement was adopted from Li, H., Daugherty, T., and Biocca, F. (2002), in which potential customers' intention to eat KFC products are asked.

3.3.1 Preliminary Analysis

Prior to the hypotheses testing, since the multi-item scales were used to measure the brand attitude and the purchase intention, factor analysis was conducted to achieve a single factor pattern. Each dimension that was used in factor analyses were coded with numbers such as BA11 to BA16 and PI11 to PI 14 (BA21 to BA26 and PI21 to PI24 for post tests) and 'BA' and 'PI' stand as abbreviations for brand attitude and purchase intention, respectively. Following the factor analysis to assess the reliability of scales, Cronbach alpha (α) coefficients were calculated analysis for prior and post measurements. Cronbach alpha (α) coefficient was developed by Cronbach (1951) and is used to test reliability in

terms of internal consistency of a single test especially in combined measurements (Inal et al. 2017, p. 19). The generally acceptable level of Cronbach α is that the coefficient should be higher than 0.80 (Sipahi et al. 2010). Along with the factor analysis results, the coefficients calculated can be observed at Table 3.2 through Table 3.5. Since all the coefficients were above 0.80; scales were accepted as reliable.

As this experiment takes prior brand attitude into consideration and constructed hypotheses with regard to prior brand attitude, the participants were grouped into two categories, which were first, participants with positive prior brand attitude and second, participants with negative prior brand attitude. In categorizing the participants, mid-point analysis was performed and participants who rated prior brand attitude question with an average below 3 (using 5-point Likert scales) had been regarded to have negative prior brand attitude. On the other side, participants who rated prior brand attitude question with an average above 3 had been categorized as positive prior brand attitude holders.

In terms of factor analysis, exploratory factor analyses were conducted for winners and losers each with respect to prior brand attitude, being either positive or negative. In each group (positive prior brand attitude and negative prior brand attitude), two additional factor analyses were done in order to find total variance explained prior playing the game and after playing the game. Each attitude measure for prior to and after the manipulation produced a single factor according to the Kaiser criterion across all dimensions. To summarize, eight factor analyses were done separately for both brand attitude and purchase intention dimensions (two for prior brand attitude positive and winners, two for prior brand attitude positive and losers, two for prior brand attitude negative and winners, two for prior brand attitude negative and losers). In each factor analyses, generally acceptable level of variance explained should be more than 0.50 (Suryani and Hendryadi 2015), and all factor solutions explained more than 0.50 of the variance. Additionally, the minimum acceptable level of item loadings is 0.5 in factor analysis (Anderson 1987). If one or more factors fail to accomplish this level loading, that or those factors are excluded from the analysis. Therefore, in factor analyses in this study, some of them were extracted from the analyses which are explained in detail in each factor analyses sections.

In terms of winner participants with positive prior brand attitude, in prior tests, one factor had been extracted from the factor analysis (which is beneficial) of brand attitude, since its loading was below 0.50. Remaining five loadings were above the acceptable level of 0.50, and observed a total variance explained rate of 0.729. After the manipulation, the total variance was 0.713. On the other side, in terms of purchase intention, all factor loadings (four in total) were above the acceptable level of 0.50, therefore no single factor has been extracted. Prior playing the game, total variance in purchase intention dimensions was explained by 0.811 and after playing the game, total variance in purchase intention dimensions turned out to be 0.851.

Table 3.2 below summarizes factor analyses of Rotated Component Matrix with Varimax rotation for positive prior brand attitude of winner participants. Factors BA15 and BA25 are excluded from the factor analysis.

Table 3.2: Factor analyses of 2 constructs with positive prior brand attitude and winner participants

Rotated Component Matrix			Cronbach Alpha	Rotated Component Matrix			Cronbach Alpha
Prior Brand Attitude Positive (Winners)	Components			Prior Brand Attitude Positive (Winners)	Components		
BA11	-	0.777	0.871	BA21	-	0.797	0.823
BA12	-	0.854		BA22	-	0.703	
BA13	-	0.675		BA23	-	0.757	
BA14	-	0.672		BA24	-	0.648	
BA16	-	0.666		BA26	-	0.662	
PI11	0.783	-	0.932	PI21	0.785	-	0.952
PI12	0.801	-		PI22	0.86	-	
PI13	0.766	-		PI23	0.912	-	
PI14	0.893	-		PI24	0.848	-	

In terms of loser participants with positive prior brand attitude, in prior tests, two factors had been extracted from the factor analysis (wise (BA13, BA23) and healthy (BA15, BA25)) of brand attitude, since their loadings were below 0.50. Remaining four loadings were above the acceptable level of 0.50, and observed a total variance explained rate of 0.797. However, after the manipulation, the total variance was explained with a slightly decrease, with an explanation of 0.777. On the other side, in terms of purchase intention, all factors were above the acceptable level of 0.50, therefore no single factor had been extracted. Prior playing the game, total variance in purchase intention dimensions is

explained by 0.811 and after playing the game, an increase was observed in terms of variance explained, which turned out to be 0.872.

Table 3.3 below summarizes factor analyses of Rotated Component Matrix with Varimax rotation for positive prior brand attitude of loser participants. Factors BA13, BA23 and BA15, BA25 were excluded from the factor analysis.

Table 3.3: Factor analyses of 2 constructs with positive prior brand attitude and loser participants

Rotated Component Matrix			Cronbach Alpha	Rotated Component Matrix			Cronbach Alpha
Prior Brand Attitude Positive (Losers)	Components			Prior Brand Attitude Positive (Losers)	Components		
BA11	-	0.827	0.852	BA21	-	0.791	0.812
BA12	-	0.787		BA22	-	0.808	
BA14	-	0.712		BA24	-	0.783	
BA16	-	0.861		BA26	-	0.725	
PI11	0.799	-	0.934	PI21	0.880	-	0.944
PI12	0.849	-		PI22	0.882	-	
PI13	0.828	-		PI23	0.885	-	
PI14	0.768	-		PI24	0.84	-	

These four factor analyses were made to one group of whole participants, which referred the participants with positive prior brand attitude. The differentiation between them was the game outcome, as a win or lose. In contradiction to that, there was another group, which represented the participants with negative prior brand attitude. The following part summarizes the factor analyses regarding participants with negative prior brand attitude, again taking game outcome as the differentiating point.

In terms of winner participants with negative prior brand attitude, in prior tests, two factors had been extracted from the factor analysis (healthy (BA15, BA25) and tasty (BA16, BA26)) of brand attitude, since their loadings were below 0.50. Remaining four loadings were above the acceptable level of 0.50, and the total variance explained rate was 0.760. However, after the manipulation, the total variance was explained with a slightly increase, with an explanation of 0.774. On the other side, in terms of purchase intention, all factor loadings (four in total) were above the acceptable level of 0.50, therefore no single factor has been extracted. Before playing the game, total variance in purchase intention dimensions was explained by 0.902 and after playing the game, a

decrease (contrast to factor analyses with the participants with positive prior brand attitude) was observed in total variance explained, which turned out to be 0.858.

Table 3.4 below summarizes factor analyses of Rotated Component Matrix with Varimax rotation for negative prior brand attitude of winner participants. Factors BA15, BA25 and BA16, BA26 are excluded from the factor analysis.

Table 3.4: Factor analyses of 2 constructs with negative prior brand attitude and winner participants

Rotated Component Matrix			Cronbach Alpha	Rotated Component Matrix			Cronbach Alpha
Prior Brand Attitude Negative (Winners)	Components			Prior Brand Attitude Negative (Winners)	Components		
BA11	-	0.839	0.852	BA21	-	0.723	0.878
BA12	-	0.779		BA22	-	0.832	
BA13	-	0.674		BA23	-	0.793	
BA14	-	0.747		BA24	-	0.746	
PI11	0.868	-	0.937	PI21	0.820	-	0.964
PI12	0.962	-		PI22	0.922	-	
PI13	0.912	-		PI23	0.877	-	
PI14	0.864	-		PI24	0.812	-	

In terms of loser participants with positive prior brand attitude, in prior tests, two factors had been extracted from the factor analysis (healthy (BA15, BA25) and tasty (BA16, BA26)), since their loadings were below 0.50. Remaining four loadings were above the acceptable level of 0.50, and observed a total variance explained rate of 0.719. However, after the manipulation, the total variance was explained with a slightly increase, with an explanation of 0.772. On the other side, in terms of purchase intention, all factor loadings were above the acceptable level of 0.50, therefore no single factor has been extracted. Before playing the game, total variance in purchase intention dimensions was explained by 0.901 and after playing the game, a decrease was seen in total variance explained, which turned out to be 0.855.

Table 3.5 below summarizes factor analyses of Rotated Component Matrix with Varimax rotation for negative prior brand attitude of loser participants. Factors BA11, BA21 and BA15, BA25 were extracted from the factor analysis.

Table 3.5: Factor analyses of 2 constructs with negative prior brand attitude and loser participants

Rotated Component Matrix			Cronbach Alpha	Rotated Component Matrix			Cronbach Alpha
Prior Brand Attitude Negative (Losers)	Components			Prior Brand Attitude Negative (Losers)	Components		
BA11	-	0.600	0.868	BA21	-	0.704	0.856
BA12	-	0.772		BA22	-	0.828	
BA13	-	0.742		BA23	-	0.770	
BA14	-	0.762		BA24	-	0.786	
PI11	0.885	-	0.924	PI21	0.864	-	0.921
PI12	0.892	-		PI22	0.798	-	
PI13	0.917	-		PI23	0.868	-	
PI14	0.910	-		PI24	0.891	-	

Below in table 3.6, the illustration of the whole factor analyses is summarized. As it can be seen, total variance explained in purchase intention was greater than the brand attitude.

Table 3.6: Factor analyses of brand attitude and purchase intention

Factor Analyses of Brand Attitude and Purchase Intention			Variance Explained in terms of %	
			Brand Attitude	Purchase Intention
Prior Brand Attitude Positive	Winners	Prior Manipulation	72,9%	81,1%
		Post Manipulation	71,3%	85,1%
	Losers	Prior Manipulation	79,7%	81,1%
		Post Manipulation	77,7%	87,2%
Prior Brand Attitude Negative	Winners	Prior Manipulation	76,0%	90,2%
		Post Manipulation	77,4%	85,8%
	Losers	Prior Manipulation	71,9%	90,1%
		Post Manipulation	77,2%	85,5%

4. FINDINGS

As implied by the name itself, the findings and results of the analyses are going to be conveyed in this chapter. The results are going to be categorized into two, brand attitude and purchase intention.

4.1 THE EFFECT OF GAME OUTCOME ON GAME PLAYERS' BRAND ATTITUDE

In the experimental design, it was previously mentioned that the participants were categorized into two groups, the ones with positive prior brand attitude and the ones with negative prior brand attitude. In the hypothesis 1 (H1), the expectation was to see a greater brand attitude compared to prior positive attitude if the outcome of the game was a win. Whereas, in hypothesis 4 (H4), it was assumed that the prior attitude, which is positive, will be affected significantly and negatively if the gamer loses the game. In almost all hypotheses, the expectation was to see a positive correlation between the prior/post brand attitude and the game outcome, in other words winning and losing the game.

In order to compare the means of brand attitudes of game players, ANOVA (Analysis of Variance) statistical measurement method was conducted with the post brand attitude as the dependent variable, prior brand attitude as the independent variable, and the game outcome as the manipulation. In this section, the results regarding hypotheses 1 and 4 will be assessed.

4.1.1 Results for the Participants with Positive Prior Brand Attitude

As mentioned above, in the first hypothesis, an improved brand attitude was expected among the participants with positive prior brand attitude if the game outcome was a win. As the result of ANOVA analysis, the prior positive brand attitude did not significantly increase as the game outcome was a win ($F(1, 54) = 2.066, p = 0.253$). In terms of means, a mean of 3.81 (with a standard deviation of 0.42) was observed as prior brand attitude before playing the game, however after playing the game and winning it, the mean of

winners stayed about the same level, being 3.79 (with a standard deviation of 0.51). Therefore it can be concluded that *hypothesis 1 (H1) is not supported*, meaning that if the outcome of an advergaming is a win, the post brand attitude of game players with positive prior brand attitude is not affected positively.

On the other side, ANOVA analysis was conducted to figure out if losing an advergaming has an effect on game players' prior positive brand attitude, resulting in a decline in brand attitude. Based on the analysis, the significance level was not enough to conclude ($F(1, 49) = 1.96, p = 0.070$) that losing the game affects prior positive brand attitude negatively. In terms of means, prior to play the game, participants rated brand attitude with a mean of 3.38 (with a standard deviation of 0.64), however after playing and losing the game, the mean turned out to be 3.33 (with a standard deviation of 0.72), with a narrow decline prior playing the game. Therefore, it can be said that *hypothesis 4 (H4) is not supported*.

The table 4.1 below summarizes the ANOVA test results in both cases.

Table 4.1: ANOVA results of brand attitude for participants with positive prior brand attitude

ANOVA ANALYSIS FOR POSITIVE PRIOR BRAND ATTITUDE				
	F	Sig.	Prior BA Mean	Post BA Mean
Winners	2.066	0.253	3.81	3.79
Losers	1.960	0.070	3.38	3.33

4.1.2 Results for the Participants with Negative Prior Brand Attitude

As explained earlier, the participants were categorized with respect to their prior brand attitudes. In previous section, the results of participants with positive prior brand attitudes were given and now in this section the results with negative prior brand attitudes will be explained in detail. Again, it was assumed to see a positive relationship between either winning or losing the game and brand prior/post brand attitude while constructing the hypothesis 2 (H2) and hypothesis 3 (H3).

Based on the results of ANOVA test, a significant decrease was observed in means of participants regarding prior and post brand attitudes when the participants lose the game,

in numbers, prior playing the game, a mean of 2.37 (with a standard deviation of 0.52) was observed in terms of brand attitude, and after playing and losing the game, the newly observed mean is 2.01 (with a standard deviation of 0.58). In a statistical framework ($F(1, 43) = 134.497, p = 0.000$), it can be concluded that losing an advergaming is affecting the prior negative brand attitude significantly, even in a more negative manner. Therefore the *hypothesis 2 (H2) is supported*.

On the other side, in the hypothesis 3 (H3), it was assumed that winning an advergaming will affect the negative prior brand attitude positively. The ANOVA test results were in line with the expectations as the significance level of variance explained was below 0.05 ($F(1, 44) = 4.232, p = 0.049$). In terms of means, means of 2.35 (with a standard deviation of 0.44) prior playing the game and 2.78 (with a standard deviation of 0.78) after winning the game were observed. Statistically it can be concluded that the difference in means is regarded as significant meaning that the game players rated the brand better after winning the game and therefore as a result, *hypothesis 3 (H3) is supported*.

The table 4.2 below again summarizes the findings of ANOVA test of participants with negative prior brand attitude.

Table 4.2: ANOVA results of brand attitude for participants with negative prior brand attitude

ANOVA ANALYSIS FOR NEGATIVE PRIOR BRAND ATTITUDE				
	F	Sig.	Prior BA Mean	Post BA Mean
Winners	134.497	0.000	2.35	2.78
Losers	4.232	0.049	2.37	2.01

4.2 THE EFFECT OF GAME OUTCOME ON GAME PLAYERS' PURCHASE INTENTION

After analyzing the game outcome on game players' brand attitude, the game outcome in terms of its possible effects on game players' purchase intention will be analyzed. Same as in brand attitude, it was expected to see a relationship between game outcome as win or lose and purchase intention of game players and constructed hypotheses regarding

purchase intention accordingly. In measuring purchase intention of game players, ANOVA test was used and similar to the previous section, the participants were categorized into two, participants with positive prior brand attitude and participants with negative prior brand attitude.

4.2.1 Results for the Participants with Positive Prior Brand Attitude

In the fifth hypothesis (H5), it was assumed that the participants with a positive prior brand attitude will have a higher purchase intention after winning the game compared to prior playing the game. Based on the ANOVA test, it can be said that winning an advergame did not significantly increase the participants' purchase intention. In a statistical manner, prior and post purchase intention means were measured as 3.47 and 3.55 (with standard deviations of 0.70 and 0.79, respectively) after winning the game, respectively, after winning the game. The result of the ANOVA test revealed the value of F as $F(1, 54) = 0.765$ ($p = 0.719$), which is in the insignificance level. Therefore it is concluded that *hypothesis 5 (H5) is not supported*.

On the other side, in hypothesis 8 (H8), it was expected to see a decreased purchase intention among participants with positive prior brand attitude after losing an advergame. The ANOVA test ($F(1, 49) = 17.233$, $p = 0.000$) implied that, it is statistically significant that losing an advergame affects game players' purchase intention negatively, even the prior brand attitude is positive. In terms of means, a prior purchase intention mean turned out to be as 3.52 (with a standard deviation of 0.87), whereas after losing the game, it turned out to be as 3.04 (with a standard deviation of 0.85). In other words, the participants become less intended to purchase a KFC product after losing the game. As a result, *hypothesis 8 (H8) is supported*.

The results of ANOVA test of participants with positive prior brand attitude regarding purchase intention are explained below, in table 4.3.

Table 4.3: ANOVA results of purchase intention for participants with positive prior brand attitude

ANOVA ANALYSIS FOR POSITIVE PRIOR BRAND ATTITUDE				
	F	Sig.	Prior PI Mean	Post PI Mean
Winners	0.765	0.719	3.47	3.55
Losers	17.233	0.000	3.52	3.04

4.2.2 Results for the Participants with Negative Prior Brand Attitude

In the previous section, the results regarding purchase intention of game players with positive prior brand attitude based on the game outcome were summarized and now in this section, other category of game players came into the stage, as the effects of game outcome on purchase intention of game players with negative prior brand attitude were examined. Similar to other analyses, based on the hypotheses 6 (H6) and 7 (H7), it was expected to see a positively correlated relationship between losing or winning the game and purchase intention among participants with negative prior brand attitude.

In the hypothesis 6 (H6), the expectation was so that the purchase intention will be even worse among game players who have a negative prior brand attitude, if the game outcome turns out to be a loss. ANOVA test was conducted for this hypothesis and found out that losing an advergaming has a significant and negative effect on purchase intention of participants who have had a negative prior brand attitude. Statistically speaking ($F(1, 43) = 19.057, p = 0.005$), the significance level was below 0.05 and in terms of means, the prior purchase intention was 2.24 (with a standard deviation of 0.89), however it became less after losing the game, as it turned out to be 2.01 (with a standard deviation of 0.81). This difference is regarded as statistically significant, therefore *hypothesis 6 (H6) is supported*.

Lastly, in the hypothesis 7 (H7), the expected result was to see an increased purchase intention among game players who have a negative prior brand attitude, if the game outcome is win. Based on the last ANOVA test ($F(1, 44) = 1.848, p = 0.256$), it can be mentioned that winning an advergaming did not cause game players who have a negative prior attitude to become more intended to buy the KFC products. In terms of comparison

of means, the prior purchase intention mean was 2.22 (with a standard deviation of 0.94) and it became slightly higher to 2.31 (with a standard deviation of 0.90) after playing the game but the difference was not significant statistically. Therefore, *hypothesis 7 (H7) is not supported.*

The table 4.4 summarizes the ANOVA findings on purchase intention among game players who have negative prior attitude.

Table 4.4: ANOVA results of purchase intention for participants with negative prior brand attitude

ANOVA ANALYSIS FOR NEGATIVE PRIOR BRAND ATTITUDE				
	F	Sig.	Prior PI Mean	Post PI Mean
Winners	1.848	0.256	2.22	2.31
Losers	19.057	0.005	2.24	2.01

To conclude, the table 4.5 below gives the full outline of hypotheses and results whether they were supported or not supported.

Table 4.5: Hypotheses summary

Hypotheses	Supported / Not Supported
H1	Not supported
H2	Supported
H3	Supported
H4	Not supported
H5	Not supported
H6	Supported
H7	Not supported
H8	Supported

The results are completed here. The study will continue with the managerial implications, limitations regarding analyses done and with further possible research topics.

5. CONCLUSION

In closing, this study tried to examine the effect of an advergame's outcome on brand attitude and purchase intention on potential customers. The advergame concept is regarded as one of the hot topics in the marketing literature within last decades but advergame's outcome effects are not thoroughly and not deeply investigated. The results of this study will provide marketers another considerations in designing and reshaping their marketing strategies in order to increase the brand attitude and the purchase intention toward the products of the companies among potential customers.

5.1 DISCUSSION

This study will contribute to the existing literature since there are limited studies regarding the gamification and advergames as they become popular within the last decades. The topic of this study is about the concept gamification and, being more specific, about the advergames which are regarded as milestones of digital marketing. The aim was to examine the effects of an advergame's outcome as either winning or losing on game players' brand attitude and purchase intention, taking the prior brand attitude into consideration. There are limited studies available regarding the outcome effects of an advergame on brand attitude and purchase intention but this study differs from the previous ones since in this study, prior brand attitudes of attendants are also measured and effects of an advergame's outcome is examined accordingly. Eight different hypotheses were constructed in the light of this pursuit. At the end of the analyses, four out of eight hypotheses are supported. In parallel with these findings, marketers and researchers might take this study as a resource in order to question their marketing strategies and this study might be a pioneer as a starting point for further research topics.

In general, marketers should be aware of the danger that losing an advergame might cause game players to rate the brand worse and in addition to that the purchase intention level to decline. Losing an advergame did not affect the brand attitude significantly, if the game players have a positive prior brand attitude. Therefore these findings signal marketers

that, while creating an advergame, the game itself should not be so challenging to win, since it has an adverse effect on brand, although the aim in creating an advergame was to get positive results. This consideration becomes more crucial, if the general brand attitude is balanced among whole population, meaning that there are so many negative feelings about the brand within the targeted society. These findings contradict with the findings of Steffen et al. (2013). They came up with a result that the brand attitude did not decrease significantly after losing the game. The conflict between these results and previous studies might arise because of the brand embedded in the advergame. The societal attitude toward the brand used in this study can be easier to be manipulated in a negative manner compared to the other brands used in previous studies. The game players attended in this study might be more prone to attitude changes due to the human characteristics such as age compared to the ones attended in previous studies (for example, the average age of attendants in Steffen et al. (2013) study was 31). Therefore these findings of this study might suggest marketers that they should create the advergame so wisely that the possible reverse effects are prevented. If not, the results can be so disappointing for the company in terms of brand attitude and purchase intention.

On the other hand, this research has also examined the possible effects of winning an advergame in terms of brand attitude and purchase intention. Besides the substantial results that losing an advergame provides, winning an advergame does not have similar effect as it has compared to after losing an advergame. This study shows that, winning an advergame affects brand attitude significantly and positively (similar to the findings that Steffen et al. (2013) came up with), if the existing prior brand attitude is negative. Therefore it can be implied that, in such situations, such as a company that is suffering from a bad brand attitude reputation can implement an easy advergame and in parallel with that can turn the perception of the brand into positive with the help of that advergame. Other than that, winning an advergame does not have a significant effect on purchase intention in any cases and does not improve brand attitude if the existing brand attitude is positive among potential customers. According to Steffen et al. (2013), winning an advergame further improved the attitude toward the brand, meaning that the findings are again incompatible with their results.

If the results are examined in terms of prior brand attitudes, it is seen that winning or losing an advergame does not affect the positive prior attitude toward the brand. This might be explained due to human characteristics since it is not easy to challenge a positive opinion about the brand with an advergame, meaning that people are not prone to change their positive attitude easily. However, it is concluded that among the participants with positive prior brand attitude, losing an advergame decreased significantly the purchase intention, although winning that game did not increase purchase intention. The difference can be explained by the psychological effects created by losing something.

On the other hand, it is concluded that winning and losing significantly affects the brand attitude with a positive correlation if the prior attitude toward the brand is negative. The reason behind this might be the negative prior brand attitude since people can be more open to change their negative attitudes compared to positive attitudes. However, in terms of purchase intention, winning an advergame did not increase significantly the purchase intention but losing an advergame decreased it further if the prior brand attitude is negative. The logic behind this can be explained by people's choices since they are not affected by the advergame's outcome primarily although they win the game if their attitude toward the brand is negative. Winning an advergame increased significantly the brand attitude but not enough to increase the purchase intention. The picture changes when it comes to losing the game since it decreased the purchase intention further. This supports the findings of Steffen et al. (2013) in terms of mood as they concluded that the players felt worse after losing the game. Similar to the attendants with positive prior brand attitude, the attendants are more prone to be affected if they lose something due to psychological effects.

5.2 MANAGERIAL IMPLICATIONS

Marketers are seeking ways to improve brand attitude and purchase intention toward their brands. While doing that, as this study shows that, they should be aware of the existing brand attitude within potential customers in order to shape their marketing strategies accordingly. Since potential customers with negative or positive existing brand attitudes do not react winning or losing an advergame similarly, first step should be to identify how the attitude toward the brand is perceived. After figuring that out, the following steps

should be taken carefully to accomplish the desired outcome by creating an advergame. The marketers should keep in mind that losing an advergame significantly affects people's purchase intention independent from the prior brand attitude being either positive or negative. Therefore the advergames should not be very challenging to win if the companies pursue increasing sales.

5.3 LIMITATIONS

At the end of the study, it is important to mention what the limitations were throughout the whole research. First of all, the research is conducted in Turkey and all respondents were Turkish citizens. Therefore, results might be specific for this geographical location due to cultural differences among nations and the results might had been different if the respondents were composed of more cross cultural respondents. Another limitation can be cited as, all respondents were students, meaning that the study might come up with different results if the occupation and ages of respondents were more diversified. Lastly, the test was applied using just one game, the results might be different if another type of an advergame such as an advergame created by a soccer or a car company was used. Therefore the results of this study cannot be generalized to all kinds of advergames.

In terms of further research suggestions, it might be an interesting case, if the challenge level of the game is added to the study. In this study, the respondents were not asked how they rate the game in terms of difficulty level. As Waiguny et al. (2012) mentioned that fair amount of difficulty in games provides a higher brand attitude. Maybe a comparison of two different advergames with separate difficulty levels can provide better and distinguishing results for marketers. Any study that will overcome the limitations of this research will certainly contribute to the literature.

REFERENCES

Books

- Barash, M., 1961. *Man, play and games*. R. Caillois (Translation), Chicago: The Free Press of Glencoe (original printing 1958).
- Duhigg, C., 2012. *The power of habit: Why we do what we do in life and business*. New York: Random House LLC
- Gardner, M. P. and Vandersteel, M., 1984. The consumer's mood: An important situational variable. *advances in consumer research*. Provo, UT: Association for Consumer Research, pp. 525-529
- Güngör, A. S., Ozansoy, T. Ç. and Köse, G. Ş., 2016. Advergaming – How does cognitive overload effect brand recall?: Differences between in-game advertising (IGA) and advergaming. *Handbook of research on human-computer interfaces, developments and applications*. USA: IGI-Global Publications, pp. 501-524.
- Ipe, M., 2008. Advergaming and in-game advertising. *Advergaming: An introduction*. Hyderabad: Icfai University Press, pp. 3-16.
- Kapp, K. M., 2012. What is gamification? *The gamification of learning and instruction: Game-based methods and strategies for training and education*. San Francisco: Pfeiffer, pp. 9-11.
- Lazzaro, N., 2008. Why we play: Affect and the fun of games. *The human-computer interaction handbook: Fundamentals, evolving technologies, and emerging applications*. New York: Erlbaum, pp. 679-700.
- McGonigal, J., 2011. *Reality is broken: Why games make us better and how they can change the world*. London: Jonathan Cape.
- Sipahi, B., Yurtkoru, E. S., and Cinko, M., 2010. Güvenilirlik analizi. *Sosyal bilimlerde SPSS'le veri analizi*. İstanbul: Beta Basım Yayım Dağıtım, pp. 89-100.
- Skinner, B. F., 1938. *The behavior of organisms: An experimental analysis*. New York: Appleton-Century
- Werbach, K. and Hunter, D., 2012. *For the win: How game thinking can revolutionize your business*. Philadelphia: Wharton Digital Press.

Zichermann, G. and Cunningham, C., 2011. *Gamification by design: Implementing game mechanics in web and mobile apps*. San Francisco: O'Reilly Media.



Periodicals

- Adis, A. A. and Kim, H. J., 2013. The mediating role of brand recall and brand attitude in influencing purchase intention in advergaming. *Asia Marketing Journal*. **15** (3), pp. 117-139.
- Anderson, J. C., 1987. An approach for confirmatory measurement and structural equation modeling of organizational properties. *Management Science*. **33** (4), pp. 525-541.
- Batra, R. and Ahtola O. T., 1991. Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing Letters*. **2** (2), pp. 159-170.
- Blohm, I. and Leimeister, J. M., 2013. Gamification: Design of IT-based enhancing services for motivational support and behavioral change. *Business and Information Systems Engineering*. **5** (4), pp. 275-278.
- Calin, G., 2010. Advergaming: Characteristics, limitations and potential. *Annals of the University of Oradea: Economic Science*. **1** (1), pp. 726-730.
- Cauberghe, V., and DePelsmacker, P., 2010. Advergaming. *Journal of Advertising*, **39** (1), pp. 5-18.
- Chaney, I. M., Lin, K. and Chaney, J., 2004. The Effect of billboards within the gaming environment. *Journal of Interactive Advertising*. **4** (3), pp. 54–69
- Domínguez, A., Saenz-de-Navarrete, J., de-Marcos, L., Fernández-Sanz, L., Pagés, C. and Martínez-Herráiz, J. J., 2013. Gamifying learning experiences: Practical implications and outcomes. *Computers & Education*. **63** (1), pp. 380-392.
- Ghirvu, A. I., 2013. The AIDA model for advergaming. *USV Annals of Economics and Public Administration*. **13** (1), pp. 90-98.
- Ghosh, T., 2016. Winning versus not Losing: Exploring the effects of in-game advertising outcome on its effectiveness. *Journal of Interactive Marketing*. **36** (1), pp. 134-147.
- Goh, K. Y. and Ping, J. W., 2014. Engaging consumers with advergaming: an experimental evaluation of interactivity, fit and expectancy. *Journal of the Association for Information Systems*. **15** (7), pp. 388-421.
- Gross, M. L., 2010. Advergaming and the effects of game-product congruity. *Computers in Human Behavior*. **26** (6), pp. 1259-1265.

- Güngör, A. S. and Ozansoy, T. Ç., 2016. Impact of involvement and cognitive load on affective responses to advergames and in-game advertising. *Yildiz Social Science Review*. **2** (2), pp. 91-106.
- Hernandez, Chapa, S., Monica, D., Maldonado, S. and Minor, M. S., 2004. Hispanic attitudes toward advergames: A proposed model of their antecedents. *Journal of Interactive Advertising*. **5** (1), pp. 74-83.
- Hill, R. P., Ward, J. C. and Gardner, M. P., 1988. Promotional games: The effects of participation on mood, attitude and information processing. *Advances in Consumer Research*. **15** (1), pp. 135-140.
- Holzwarth, M., Janiszewski, C. and Neumann, M. M., 2006. The influence of avatars on online consumer shopping behavior. *Journal of Marketing*. **70** (4), pp. 19-36.
- Hudson, S. and Hudson, D., 2006. Branded entertainment: A new advertising technique or product placement in disguise? *Journal of Marketing Management*. **22** (5-6), pp. 489-504.
- Inal, H., Koğar, E. Y., Demirdüzen, E. and Gelbal, S., 2017. Cronbach's coefficient alpha: A meta-analysis study. *H.U. Journal of Education*. **32** (1), pp. 18-32.
- Jovanovic, P., Vlastelica, T. and Kostic, S. C., 2016. Impact of advertising appeals on purchase intention. *Management*. **81** (1), pp. 35-45.
- Karatum, S., 2017. The place of digital marketing on turkish small businesses. *Journal of International Trade, Logistics and Law*. **3** (2), pp. 36-43.
- Kim, Y., Walsh, P. and Ross, S. D., 2008. Brand recall and recognition: A comparison of television and sport video games as presentation modes. *Sport Marketing Quarterly*. **17** (4), pp. 201-208.
- Klemke, R., Eradze, M. and Antonaci, A., 2018. The flipped MOOC: Using gamification and learning analytics in MOOC design-A conceptual approach. *Education Sciences*. **8** (1), pp. 25-45.
- Leaning, M., 2015. A study of the use of games and gamification to enhance student engagement, experience and achievement on a theory-based course of an undergraduate media degree. *Journal of Media Practice*. **16** (2), pp. 155-170.
- Lee, J., Park, H., Wise H., 2014. Brand interactivity and its effects on the outcomes of advergame play. *New Media and Society*. **16** (8), pp. 1268-1286.

- Lee, M. and Youn, S., 2008. Leading national advertisers' uses of advergames. *Journal of Current Issues and Research in Advertising*. **30** (2), pp. 1-13.
- Lee, M. and Faber, R. J., 2007. Effects of product placement in online games on brand memory. *Journal of Advertising*. **36** (4), pp. 75-90.
- Li, H., Daugherty, T. and Biocca, F., 2002. Impact of 3-D advertising on product knowledge, brand attitude, and purchase intention: The mediating role of presence. *Journal of Advertising*. **31** (3), pp. 43-57.
- Nelson, M. R., Yaros, R. A. and Keum, H., 2004. Advertainment or adcreep? Game players' attitudes toward advertising and product placements in computer games. *Journal of Interactive Advertising*. **5** (1), pp. 3-21.
- Nelson, M. R., 2002. Recall of brand placements in computer/video games. *Journal of Advertising Research*. **42** (2), pp. 80-92.
- Nicovich, S. G., 2005. The Effect of involvement on ad judgment in a video game environment: the mediating role of presence. *Journal of Interactive Advertising*, **6** (1), pp. 29-39.
- Paek, H., Rifon, N. J., Quilliam, E. T., Lee, M., Smreker, K., Kim, S. and Weatherspoon, L., 2014. Characteristics of food advergames that reach children and the nutrient quality of the foods they advertise. *Internet Research*. **24** (1), pp. 63-81.
- Parrefio, J. M., Joaquin, A. M., Rafael, C. P. and Isabel, S. G., 2013. Factors contributing brand attitude in advergames: Entertainment and irritation. *Journal of Brand Management*. **20** (5), pp. 374-388.
- Peters, S. and Leshner, G., 2013. Get in the game: The effects of game-product congruity and product placement proximity on game players' processing of brands embedded in advergames. *Journal of Advertising*. **42** (2-3), pp. 113-130.
- Raatikainen, O., 2012. Dynamic In-game advertising in 3-D digital games: A threat and a possibility. *Nordicom Review*. **33** (2), pp. 93-102.
- Redondo, I., 2012. The effectiveness of casual advergames on adolescents' brand attitudes. *European Journal of Marketing*. **46** (11-12), pp. 1671-1688.
- Robson, K., Plangger, K., Kietzmann, J. H., McCarthy, I. and Pitt, L., 2015. Is it all a game? Understanding the principles of gamification. *Business Horizons*. **58** (4), pp. 411-420.

- Schneider, L. P. and Cornwell, T. B., 2005. Cashing in on crashes via brand placement in computer games. *International Journal of Advertising*. **24** (3), pp. 321-343.
- Steffen, C., Mau, G. and Klein, H. S., 2013. Who is the loser when I lose the game? Does losing an advergame have a negative impact on the perception of the brand? *Journal of Advertising*. **42** (2-3), pp. 183-195.
- Suryani, S. and Hendryadi, H., 2015. A developing model of relationship among service quality, consumer satisfaction, loyalty and word of mouth in islamic banking. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*. **7** (1), pp. 45-58.
- Taylor, C. R., Yoon, S. and Choi, Y. K., 2015. Character presence effects. *Journal of Consumer Behavior*. **14** (6), pp. 357-365.
- Terlutter, R. and Capella, M. L., 2013. The gamification of advertising: Analysis and research directions of in-game advertising, advergames, and advertising in social network games. *Journal of Advertising*. **42** (2-3), pp. 95-112.
- Vashisht, D., and Sreejesh, S., 2015b. Impact of nature of advergames on brand recall and brand attitude among young indian gamers: Mediating roles of game-product congruence and persuasion knowledge. *Young Consumers*. **16** (4), pp. 454-467.
- Von Ahn, L. and Dabbish, L., 2008. Designing games with a purpose. *Communications of the ACM*. **51** (8), pp. 58-67.
- Waiguny, M. K. J., Nelson, M. R. and Marko, B., 2013. How advergame content influences explicit and implicit brand attitudes: When violence spills over. *Journal of Advertising*. **42** (2-3), pp. 155-169.
- Waiguny, M. K. J., Nelson, M. R. and Terlutter, R., 2012. Entertainment matters! The relationship between challenge and persuasiveness of an advergame for children. *Journal of Marketing Communications*. **18** (1), pp. 69-89.
- Wise, K., Bolls, P. D., Kim, H., Venkataraman, A. and Meyer, R., 2008. Enjoyment of advergame and brand attitudes: The impact of thematic relevance. *Journal of Interactive Advertising*. **9** (1), pp. 1-11.
- Yang, M., Dinu, L., Roskos-Ewodsen, D. R. and Arpan L. M., 2006. The effectiveness of in-game advertising. *Journal of Advertising*. **35** (4), pp. 143-152.
- Zhu, D. H. and Chang, Y. P., 2015. Effects of interactions and product information on initial purchase intention in product placement in social games: The moderating role of product familiarity. *Electronic Commerce Research*. **16** (1), pp. 22-33.

Other Publications

- Buckner, K., Fang, H. and Qiao, S., 2002. Advergaming: A new genre in internet advertising, *SoCbytes Journal* 2 (1), [online]
http://www.dcs.napier.ac.uk/mm/socbytes/feb2002_i/9.html (accessed 17 July 2002).
- Cho, C. H. and Leckenby, J. D., 1999. Interactivity as a measure of advertising effectiveness: antecedents and consequences of interactivity in web advertising. *Proceedings of the 1999 conference of the American Academy of Advertising*. 26-29 March 1999. Gainesville, American Academy of Advertising, pp. 162–179.
- Edwards, E., 2003. Plug the product and play. *Washington Post*, [online] 26 January 2003.
<https://www.washingtonpost.com/archive/politics/2003/01/26/>
- Gnauk, B., Dannecker, L. and Hahmann, M., 2012. Leveraging gamification in demand dispatch systems. *Proceedings of the 2012 Joint EDBT/ICDT Workshops*. 26-30 March 2012 Berlin, Germany: ACM International Conference Proceeding Series, pp.103-110
- Interbrand, Best Global Brands 2011, 2011,
<https://www.rankingthebrands.com/PDF/Best%20Global%20Brands%202011,%20Interbrand.pdf> [retrieval date 5 October 2011], pp. 1-38.
- Kretchmer, S. B., 2005. Changing Views of Commercialization in Digital Games: In-game Advertising and Advergaming as Worlds in Play. *DIGTAR Conference, Changing Views: Worlds in Play*. Vancouver, Canada: pp. 16-20.
- Kuittinen, J., Kultima, A., Niemela, J. and Paavilainen, J., 2007. Casual games discussion. *Proceedings of the 2007 Conference on Future Play*. 14-17 November 2007 Vancouver, Canada: ACM International Conference Proceeding Series, pp. 105-112.
- McBurney, R., 2012. An Introduction to the \$1.25 B. World of social gaming. *Get Busy Media*, [online] 12 April 2012. <http://www.getbusymedia.com/an-introduction-to-the-1-25b-world-of-social-gaming/>.
- Nelson, M. R., 2005. Exploring consumer response to advergaming. *Consumer Psychology: Understanding and Influencing Consumer Behavior in the Virtual World*. Lawrence Erlbaum Associates, pp. 156-182.

- Pelling, N., 2011. The (short) prehistory of gamification. Funding startups (and other impossibilities). <https://nanodome.wordpress.com/2011/08/09/theshort-prehistory-of-gamification/> [Accessed 9 August 2011].
- Radd, D., 2007. The secrets of advergaming. *Bloomberg Business Week*, [online] 23 May 2007. <https://www.bloomberg.com/news/articles/2007-05-23/the-secrets-of-advergamingbusinessweek-business-news-stock-market-and-financial-advice>.
- Rifon, N. J., Quilliam, E. T., Lee, M., Paek, H., Smreker, K., Kim, S. and Weatherspoon, L., 2012. Characteristics of advergaming that influence children's brand attitudes, taste beliefs and purchase requests. *Marketing and Public Policy Conference Proceedings*.
- Shields, M., 2006. In-game ads could reach \$2 bil. *Adweek*, [online] 12 April 2004. <http://www.adweek.com/brand-marketing/game-ads-could-reach-2-bil-84837/> [accessed 12 April 2004].
- Vashisht, D., 2015. Effect of advergaming on customers' brand memory, persuasive intent and brand attitude: *An empirical study in Indian context*. India: IBS Hyderabad, IFHE University.
- Wade, W., 2004. Care and feeding of cyberpets rivets tag-along marketers. *New York Times*, [online] 26 February 2004, **Issue 5** (1), <http://www.nytimes.com> [accessed 26 February 2004].
- Wilson, D., 2007. Burger King gets its games on. [online] 13 March 2007. www.gamespot.com/news (accessed 13 March 2007).
- Witt, M., Scheiner, C. and Robra-Bissantz, S., 2011. Gamification of online idea competitions: Insights from an explorative case. *Lecture Notes in Informatics, Informatik 2011*. 4-7 October 2011 Berlin, Germany: Informatik Schafft Communities

APPENDICES



APPENDIX-1: Survey prepared for winner participants

The survey below has been accomplished in order to gather data for my master thesis and will not be used for any other purpose.

Thank you
Tunca Patir

What is your average weekly Internet use?

- Less than an hour
- 1-3 hours
- 4-6 hours
- More than 6 hours

How long have you been playing games online?

- Less than a year
- 1-2 years
- 3-4 years
- More than 4 years

What is your average weekly online game-play time?

- 1-2 hours
- 3-4 hours
- 5-6 hours
- More than 6 hours

What is your frequency of eating at KFC?

- More than once in a week
- Once in a week
- Few times within a month
- Once in a month
- Less than one in a month
- I never eat at KFC

Please indicate how agree you are with the following statements regarding the KFC brand.
Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

KFC brand is good.
KFC brand is valuable.
KFC brand is wise.
KFC brand is joyful.
KFC products are healthy.
KFC products are tasty.

Please indicate how agree you are with the following statements regarding your eating at KFC brand in your future consumptions.

Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

I will continue eating at KFC.
I am so eager to eat at KFC.
I am planning to eat at KFC.
I am thinking to eat at KFC.

Click the link below and play the game opened in a new window at least for 3 minutes. While playing the game, please pay attention to the points you get in each try since the points will be important for the rest of the survey. After playing the game, please proceed with this survey.

If you managed to get 200 points in any attempts during 3 minutes, CONGRATULATIONS, YOU WON THE GAME!

Please tick up the option "I won" below and then proceed.

I won
 I lost

Did you realize that the game you just played was designed to advertise a product?

Evet Hayır

If you answered the above question as "Yes", please write the name of the brand that was advertised in the game, in the field below?

Please indicate how agree you are with the following statements regarding the KFC brand.
Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

- KFC brand is good.
- KFC brand is valuable.
- KFC brand is wise.
- KFC brand is joyful.
- KFC products are healthy.
- KFC products are tasty.

Please indicate how agree you are with the following statements regarding your eating at KFC brand in your future consumptions.

Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

- I will continue eating at KFC.
- I am so eager to eat at KFC.
- I am planning to eat at KFC.
- I am thinking to eat at KFC.

Your gender?

- Female Male

Your age?

Level of Education?

- Elementary Education High School University
 Master's Degree Other (please specify): _____

Your Job?

Household income?

- Between 0-2.000 TL
- Between 2.001-4.000 TL
- Between 4.001-6.000 TL
- More than 6.001 TL

APPENDIX-2: Survey prepared for loser participants

The survey below has been accomplished in order to gather data for my master thesis and will not be used for any other purpose.

Thank you
Tunca Patir

What is your average weekly Internet use?

- Less than an hour
- 1-3 hours
- 4-6 hours
- More than 6 hours

How long have you been playing games online?

- Less than a year
- 1-2 years
- 3-4 years
- More than 4 years

What is your average weekly online game-play time?

- 1-2 hours
- 3-4 hours
- 5-6 hours
- More than 6 hours

What is your frequency of eating at KFC?

- More than once in a week
- Once in a week
- Few times within a month
- Once in a month
- Less than one in a month
- I never eat at KFC

Please indicate how agree you are with the following statements regarding the KFC brand.
Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

KFC brand is good.
KFC brand is valuable.
KFC brand is wise.
KFC brand is joyful.
KFC products are healthy.
KFC products are tasty.

Please indicate how agree you are with the following statements regarding your eating at KFC brand in your future consumptions.

Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

I will continue eating at KFC.
I am so eager to eat at KFC.
I am planning to eat at KFC.
I am thinking to eat at KFC.

Click the link below and play the game opened in a new window at least for 3 minutes. While playing the game, please pay attention to the points you get in each try since the points will be important for the rest of the survey. After playing the game, please proceed with this survey.

Have you seen the reward given by KFC in any attempts during 3 minutes? If not, I am sorry to mention that, **YOU LOST THE GAME!**
Please tick up the option "I lost" below and then proceed.

I won
 I lost

Did you realize that the game you just played was designed to advertise a product?

Evet Hayır

If you answered the above question as "Yes", please write the name of the brand that was advertised in the game, in the field below?

Please indicate how agree you are with the following statements regarding the KFC brand.
Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

- KFC brand is good.
- KFC brand is valuable.
- KFC brand is wise.
- KFC brand is joyful.
- KFC products are healthy.
- KFC products are tasty.

Please indicate how agree you are with the following statements regarding your eating at KFC brand in your future consumptions.

Likert scale -- 5=Totally agree; 1=Totally disagree

Totally Agree, Agree, Neither agree nor disagree, Disagree, Totally Disagree

- I will continue eating at KFC.
- I am so eager to eat at KFC.
- I am planning to eat at KFC.
- I am thinking to eat at KFC.

Your gender?

- Female Male

Your age?

Level of Education?

- Elementary Education High School University
 Master's Degree Other (please specify): _____

Your Job?

Household income?

- Between 0-2.000 TL
- Between 2.001-4.000 TL
- Between 4.001-6.000 TL
- More than 6.001 TL

