T.C.
ISTANBUL AYDIN UNIVERSITY
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THE FACTORS AFFECTING GAMIFICATION CONSUMER'S INTENTION IN CONSUMER BEHAVIOR: AN EMPIRICAL STUDY

MASTER'S THESIS

HANA ALI ALDRIWI

Department of Business
Business Administration Program

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DECLARATION

I hereby declare with respect that the study “The Factors Affectıng Gamıfıcatıon Consumer’s Intentıon In Consumer Behavıor: An Empırıcal Study”, which I submitted as a Master thesis, is written without any assistance in violation of scientific ethics and traditions in all the processes from the Project phase to the conclusion of the thesis and that the works I have benefited are from those shown in the Bibliography. (.../.../20...)

HANA ALI ALDRIWI

FOREWORD

First, I would like to express my endless gratitude to Allah for being who I am right now and helping me to find patience, strength within myself to complete this thesis.

I would also like to thank my Mother Fatimah and my Sister DR. Eman Aldriwi not only for encouraging me to do the the master degree but also for teaching me to chase my dreams and never give up.

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Assist. Prof. Dr. Müge irfanoğlu is not only professional in her field, but a person with a great heart that keeps encouraging me.

Finally, I would like to acknowledge the important contribution of Istanbul Aydin University to my life, not only from an academic perspective but helping to meet great people that inspire, challenge, support and motivate me.

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THE FACTORS AFFECTING GAMIFICATION CONSUMER'S INTENTION IN CONSUMER BEHAVIOR: AN EMPIRICAL STUDY

ABSTRACT

Nowadays, using the gamification tools or services considered as an upcoming approach in most fields such as educations, health care system, marketing and others. Due to the increased usage of the gamification concept to meet the consumers and the market requirement many companies tend to design their products and services with the same concept. However, how could those companies maintain their consumers' attention, continuation, and recommendation of usage of those products?

The influence of certain factors on the Turkish consumers' intention towards the gamification tools, this research submits an inclusive model which evaluates factors influencing consumers' intention in consumer behaviour. Within the suggested model three independent variables Perceived Usability, Experience, Social Influence, besides one dependent variable Intention of using or recommend the gamification tool, with the mediation of Attitude towards the gamification tools or services.

Quantitative research techniques were applied in this empirical study, a five-point Likert type online questionnaire was applied and collected 272 responded data were collected from Turkish people specifically from Istanbul city. In order to signify the relationship between the different variables, the research model was analysed with Exploratory factor analysis (EFA), Confirmatory factor analysis (CFA) and finally the mediation has been analysis by Hayes' Process modelling technique. All the hypotheses of this study were accepted and had a very high and significant impact on the intention of usage and purchasing of the gamification tools with the mediation effect of their attitude. Beside the significant impact between the mediator attitude and the dependent variable the intention of usage and purchasing of the gamification tools.

Keywords: Gamification Tools, Perceived Usability, Experience, Social Influence, Attitude, Intention of Usage and Purchasing Gamification Tools

TÜKETİCİ DAVRANIŞINDA OYUN ARAÇLARININ TÜKETİCİLERİNİN DAVRANIŞLARINI ETKİLEYEN FAKTÖRLER GÖZLEME DAYALI ÇALIŞMA

ÖZET

Bu günlerde, oyunlaştırma araç ve servislerini kullanmak, eğitim, sağlık sistemi, pazarlama ve benzeri alanlar gibi pek çok alanda gerçekleşmesi yakın bir yaklaşım olarak değerlendirilmektedir. Tüketicilerin ihtiyacını karşılamak için ve oyunlaştırma konseptinin artan kullanımı ve pazar gereksinimi nedeniyle birçok şirket ürünlerini aynı konsept ile tasarlama eğilimindedir. Ancak, bu şirketler tüketicilerinin dikkatini, bu ürünlerin kullanılması konusundaki tavsiyelerini nasıl sürdürebilir?

Bazı faktörlerin Türk tüketicilerin oyunlaştırma araçlarına yönelik niyetleri üzerindeki etkisi nedeniyle, bu araştırma tüketicilerin tüketici davranışındaki niyetini etkileyen faktörleri değerlendiren kapsayıcı bir model sunmaktadır. Önerilen model dahilinde oyunlaştırma araçlarına veya hizmetlerine yönelik tutum aracılığı ile oyunlaştırma aracını kullanma veya tavsiye etme bağımlı değişkeninin yanında üç bağımsız değişken vardır: Algılanan Kullanılabilirlik, Deneyim, Sosyal Etki.

Bu deneysel araştırmada nicel araştırma teknikleri ve 5li Likert Tipi Online Anket uygulanmış ve yanıtlanmış 272 adet veri, özellikle İstanbul'daki Türk vatandaşlardan toplanmıştır. Farklı değişkenler arasındaki ilişkiyi belirtmek için araştırma Açımlayıcı faktör analizi (EFA), Doğrulayıcı faktör analizi (CFA) ve son olarak arabuluculuk, Hayes'in Süreç modelleme tekniği ile analiz edilmiştir. Bu araştırmanın hipotezlerinin çoğu kabul edilmiş ve oyunlaştırma araçlarının kullanım ve satın alma niyetinde konusundaki davranışlarında çok yüksek ve anlamlı bir etkiye sahip olmuştur. Ayrıca arabulucu tutumu ile bağımlı değişken arasında oyunlaştırma araçlarının kullanım ve satın alma niyeti arasında önemli bir etki vardır.

Anahtar Kelimeler: Oyunlaştırma Araçları, Algılanan Kullanılabilirlik, Deneyim, Sosyal Etki, Tutum, Kullanım Niyeti ve Oyunlaştırma Araçlarını Satın Alma

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ABBREVIATIONS

A **:** Attitude

AMOS **:** Analysis of Moment Structures

CFA **:** Confirmatory Factor Analysis

E/ **:** Experience

EFA **:** Exploratory Factor Analysis

ESN **:** Enterprise Social Networks

HCGs **:** Human Computation Games

HMSAM **:** Hedonic Motivation System Adoption Model

IDC **:** International Data Corporation

LIM **:** Live – Interest –Meter

SEM **:** Structural Equation Model

SI **:** Social Influence

SLE **:** Social Learning Environment

SPSS **:** Statistical Package for Social Sciences

PRI **:** Purchase or Recommend Intention

PU **:** Perceived Usability

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I. INTRODUCTION

A. Research Background

In recent years, the world witnessed a great development in many fields, especially in the field of information and communication technology, which in turn has had a significant impact on the growth of companies' marketing performance. This is due to the rapid transfer of information and the efficiency it provides, to improve the marketing performance of services, gain competitive advantage, increase market shares and deployment methods effectively, and speed in the global markets.

The development of communication, in particular the means of electronic communication, increasing cultural and health awareness, the desire to learn about the civilizations of others and the development of consumption patterns among consumers, have played an important role in encouraging organizations to use the Internet in the implementation of their marketing activities, which has contributed to the development of the ability of individuals to connect and communicate with organizations, family and friends, working groups and the outside world, and became social networking sites, and commercial sites on the Internet; an important tool and effective in helping users to do a lot of work, buying, watching news, watching movies, participating in games, and more. "Companies offer more comprehensive information about their products, direct contact with the target audience makes procurement decisions more efficient if the internet is used. (Luk, Chan & L.Y. Li, 2002)

Marketing in general and e-marketing in particular are a vital and important activity for organizations, including product manufacturers, to sell in a highly competitive market. These companies move away from consumption sites and target markets and increase the willingness of individuals and organizations to obtain information that enables them to take the right decisions based on accurate information.

All of which highlighted the urgent need for an effective and rapid

communication mechanism and since e-marketing provided Internet users with information that enables them to identify the advertised products, as well as provided the possibility of comparison between them and to choose the appropriate ones.

The electronic marketing is one of the basic concepts of contemporary, which has been able and during the last few years of the current millennium to jump in total efforts and work for marketing in various activities to the current trends in line with the current era and its variants by using various tools and means of development and modern technology in the implementation of operations and marketing activities. (Ziyadat & Alnamer, 2006)

E-marketing is considered as the strongest in the world for two main reasons. First, almost every house has become connected to the Internet. Second, the internet has become a larger and more public audience than the traditional marketing audience, enabling companies to reach specific market targets. (Hassan, 2014)

It was the progress in understanding the relationship between nutrition, health and electronic marketing that led to the development of the concept of gamification, which means adopting new practical ways to achieve the ideal state of health by enhancing the welfare status and perhaps reducing the risk of disease.

Gamification is one of the most popular marketing strategies used by consumers to engage with a brand or increase brand recognition. (Huang & Soman, 2013)

The first documented use of the term “Gamification” dates back to 2008, other terms continue to be used and new ones such as “playful design”, “behavioral games” etc. are starting to appear. Games used for the serious purpose, called “serious games”, dates back to the 20th century. Today, “gamification” seems to be the most common overall term when describing non-game contexts that use game design elements. Examples of game design elements are scoring systems like points and achievements, and the use of levels and experience points to indicate progression. Though the term is relatively new, the concept has been around with loyalty programs like frequent flyer points etc. (Larsson, 2013)

The development and trade of these products are complex, costly and risky, and needs to be met. In addition to potential technological obstacles, legislative aspects, in addition to consumer requirements, should be considered when

developing a game. In particular, consumer acceptance has been recognized as a key factor for successfully negotiating market opportunities. (Siro, et al, 2008)

B. Previous Studies

Study Amir & Ralph (2014) confirmed that Gamification refers informally to making the system more game-like. It is an emerging phenomenon of increasing interest from both practitioners and researchers. However, little theoretical or empirical research has been done on how or why the jamming works. So, they introduced the theory of effectiveness of targeting, based on current research on motivational psychology and the design of digital games. This theory assumes that appeasement is effective when it contributes to the use of the system and for system and user purposes. It also suggests that the effectiveness is driven by self and external motives, game mechanics and immersive dynamics. Of course, the proposed theory needs an experimental test to determine its validity. Future work may, therefore, include pilot assessments or questionnaires. (Amir & Ralph, 2014)

The study of De-Marcos, which was held in 2014, aimed at comparing Gamification and social networks on e-learning. This study presented the results of both social networks and Gamification testing in the undergraduate course, comparing them to their impact on student achievement, participation, and attitude. The effects of the coordinator's latency in the learning management system were compared with social networking site applications in the same learning environment. The study found that both approaches performed better than traditional e-learning in terms of academic achievement of practical tasks, but when it came to knowledge assessment, the traditional e-learning approach was better. As current assumptions persisted, participation and outcome rates remained low with new tools, although student attitudes were positive. (De-Marcos, et al, 2014)

According to Hassan's which was also held in 2014, this study aims to identify the impact of online advertising on purchasing behavior of Jordanian consumer to cars in province Amman/ Jordan, where the study population included youth in province Amman in which a questioner was designed in order to get the information, which helps to test the hypotheses, where (600) questioners were distributed. The results showed the impact of online advertising in term of characteristics of online advertising, the continent of advertising message, the image

of online advertising, means of electrical communication, and stimulus of online advertising collectively in the impact on purchasing behavior of Jordanian consumer to cars. (Hassan, 2014)

In Al-Adayla study, the goal of this study was to measure the role of social networks in influencing the purchasing decision among the students of Qassim University. The study used the analytical method to reach the results. And the selection of a sample of students of the University of Qassim amounted to 524 students. The results indicated that the dimensions of the social networks (exchange of information, evaluation of the product) have an impact on the purchasing decision, while the results indicate that there is no impact of the dimension related to consumer support as a dimension of social communication in influencing the purchasing decision. (Al-Adayla, 2015)

For instance, the aim of Barrio & Muñoz-Organero study is to identify student response systems (SRSs) and to demonstrate the benefits of using SRSs in terms of attendance, attention, participation, or motivation. In addition, the three-dimensional multivariate design was implemented, taking into account three relevant factors: 1) learning tool (non-gamified SRS or gamified SRS); 2) study type; and 3) gender. A sample of 131 students from three different institutions in Spain was selected. The main finding is that students who took lecture sessions with a gamified SRS had more positive perceptions with respect to motivation, attention, and learning performance than students who took lecture sessions with a non-gamified SRS. (Barrio & Munoz-Organero, 2015)

While Osipov study aimed at the application of e-learning systems through the Internet through the introduction of innovative methods in the science of education, as well as studying the effectiveness. Evaluation of system effectiveness depends on the analysis of log files to track study time, number of connections, and additional reward points earned. Key features of the advanced system included predefined identifiers and predefined learning materials for each participant, along with user motivation by means of gamification. The actual ratio of a successful link between the specifically unspecified and unfamiliar with all other users was measured. The study concluded that the system should be further developed and recommended as a tool to improve speech. At the same time, it is clear that the system is not entirely appropriate for each user, since some people are too shy and

cannot communicate with strangers, even when providing them with predetermined communication scenarios.

In addition, the authors decided to reduce the average duration of the lesson to 15-20 minutes, as many users feel tired, and individual users continue to communicate only for longer periods of time. (Osipov, et al, 2015)

Whereas Souza-Júnior study aimed to assess the use of Gamification in health-related health lifestyle applications. Apps were used as tools that could radically change the quality of health care worldwide, as well as radically change the reach of medical investigation. The use of arousal techniques to inspire application user experience has also stimulated health, using game mechanics to improve the thinking of users of the application. This study evaluated four m-health applications from the point of view of the gamification of their functions. To that end, the analytical framework of Werback and Hunter was used and a six-step system was used. The results of the study tentatively confirm some of the evidence in the current literature; in other words, the majority of applications using gamification elements aim to achieve publicity as a secondary goal. (Souza-Junior, et al, 2016)

Likewise, the study of Varannai, Sasvari & Urbanovics who aimed at the use of gamification in higher education, a pilot study was conducted in Hungary with two groups of students to investigate their behavior during their interaction with Kahoot. The results were analyzed based on the technology acceptance model. It indicates that a positive attitude, good experience, and ease of availability have contributed to the improvement of student performance, which has reinforced the intention of using the application. In addition, the positive benefit was affected by ease of use as a result. (Varannai, Sasvari & Urbanovics, 2016)

Furthermore, the Matallaoui study in particular, presented the stimulus that was published and the effectiveness of integrating the configuration features into exergames.

This study reviews empirical studies on gamified systems and serious games for exercising. In order to gain a better understanding of these systems, this review examines the types and aims (e.g., controlling body weight, enjoying indoor jogging…). According to the study, physical activity is clearly important for public health and exergames to represent one possible way to activate them.

Promoting physical activity through scrambling and enhancing the expected impact will also help to adhere to exercise more than traditional educational and social cognitive methods that tend to dominate these literatures.

The study reviewed contemporary literature that focused on exergaming and its impact on behavioral commitment and potential intermediaries. The types and objectives of the studies were examined in addition to their results. The results of the study indicate the full positive results of the revised studies. In addition, many studies were identified, which considered the task of game design and dissemination of gamification features to enhance physical activity. However, more theoretical studies are needed, and an accurate examination of the efficacy of the element of maturation and mechanics in exergames. (Matallaoui, et al, 2017)

1 The Importance of the Study

The importance of the study stems from the importance of studying the behaviour of the consumer to gamification prospect and the importance of electronic marketing, and how to work in order to influence this behaviour.

The importance of this study stems from the academic aspect in its attempt to link consumer purchasing behaviour to e-marketing by examining the impact of e-marketing on the consumer behaviour of the gamification.

Social networking offers many advantages that allow companies to interact with customers, sell effectively, increase customer satisfaction and increase their satisfaction to create the competitive advantage and success of the website, and provide a convenient tool for customers and, to deal with websites, the time when many studies have tested a variety of features to be provided on a wide-ranging website such as (ease of use, usability, trust, readability, effectiveness, Accuracy in reading vital indicator). (Al-Adayla, 2015)

From this point of view, the question of the study can be formulated (what are The Factors that Affecting Gamification Consumer’s Intention in Consumer Behaviour)

C. Reasons for Choosing the Study

This issue does not come as coincidence, but it was behind several reasons and factors that have an influence to study it, these reasons have varied, between self-return to the researcher, and objective research. It can be summed up in the following factors:

Limited studies on the subject “e-marketing of gamification concept” the desire to know the reality of gamification marketing the most important strategies used in this manner such as the access and exploration of the road or path taken by the gamification tools before reaching the markets and thus the consumer, especially the marketing side; try to identify the most important methods used by manufacturers through their websites; frequent use of small age groups of gamifications; Influence of social networking celebrities on gamification tools consumption by young people.

D. The Problem of the Study

It is well known that e-marketing represents the planning and implementation of marketing activities related to the components of the marketing mix of the service to meet the needs of customers and their desires and achieve the objectives of companies through the techniques used or through the Internet.

The problem of the study is reflected in the large trend of the companies producing wearable gamification tools and marketing towards the use of websites and social networks.

Self-measuring fitness and wearable fitness services have become more prevalent everywhere but still suffers from high drop-out rates. Wearable devices can monitor physiological changes in the body, alert patients and doctors to urgent procedures and facilitate the search for disease prevention and treatment.

This thesis discusses how to bridge the gap between novice and expert users by applying gamification techniques and social communities within fitness tracking.

Services to increase enjoyment and perceived ease of use the perceived benefit and long-term participation of fitness-tracking services. In addition, retention of wearable technology can be improved by applying human factor principles to make products more user-centric and user-friendly.

E. Objectives of the Study

The aim of this study is to find out whether consumer behaviour can be stimulated by the use of gamification services in intention. Why is this important?

- How the gamification tool affects the consumer behaviour?
- There is a disagreement between researchers on the use of external rewards to motivate users into action.

More research is believed to be needed to better understand how gamification services are designed. By knowing whether it stimulates the attitude of gamification services affects the intentions of the consumers. This study can help the researcher understand the effect of gamification consumer intention in consumer attitude.

F. Model of the Study

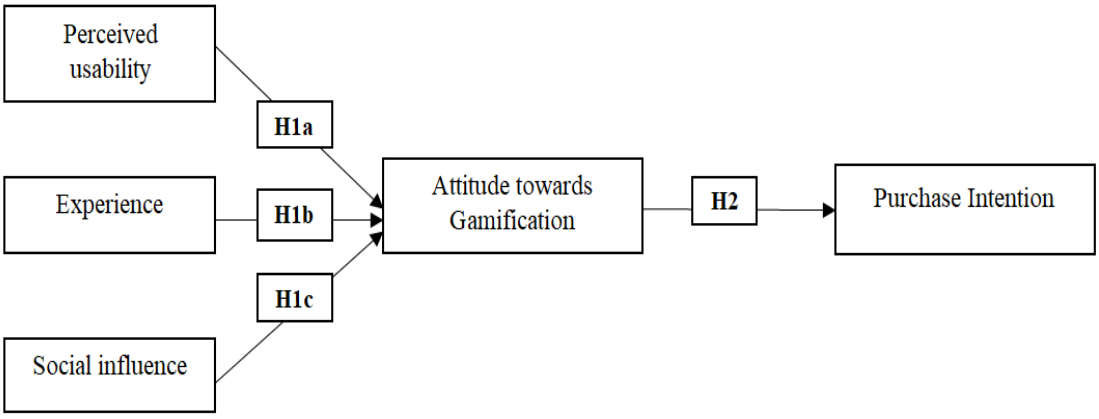

Figure 1 Research Model

G. Hypotheses of the Study

H_0: There is no correlation between the independent and dependent variants.

H_1: The variants are in correlation with each other.

H_{1a}: There is a relation between perceived usability and attitude.

H_{1b}: There is a relation between experience and attitude.

H_{1c}: There is a relation between social influence and attitude.

H_2: There is a relation between attitude and intention.

H_3: perceived usability has an effect on intention in mediation of attitude.

H_4: Experience has an effect on intention in mediation of attitude.

H_5: Social influence has an effect on intention in mediation of attitude.

H. Thesis Outline

Within Chapter One an Introduction about the subject, with a preview about the previous study besides the importance of the of the Study the reasons and objectives of the study the model and hypothesis od the study will be discussed the gamification, while chapter Two is literature Review in this chapter the e-marketing functions pros and cons effectiveness and the usage of the gamification in the e-marketing as well as the gamification the concept; importance; benefits; tools and applications; criteria and also the challenges which faces the gamification will be discussed also. For instance in chapter three the research model development and hypotheses formulation, the conceptual model besides the hypothesis is discussed. In chapter four the research methodology; research design population and the instruments and procedure used during the study, whereas chapter five the analysis and discussion; chapter six contains conclusion and recommendations, finally References and Appendixes at the end of the study.

II. LITERATURE REVIEW

A. Background of the E-marketing

E-marketing, which is a leap in quality and is important in attracting customers from wider regions of the world, increasing customer contact, reducing sales of salesmen and increasing sales. Despite this, e-marketing is the largest, fastest, cheapest, and free of materials due to digitization and marketing place due to digital space and paper indexes due to digital indexes and physical store because of the virtual store. (Ziyadat & Alnamer, 2006)

Definitions of Electronic Marketing: Many researchers in the field of e-marketing have developed different definitions such as:

A modern business approach to address the need for companies, traders and consumers alike to reduce costs while improving goods and services and speeding service delivery (Jilali, 2015), Besides the use of electronic means in the parts of the trading operations between the parties concerned rather than direct contact operations as was mentioned by. (Al-Adayla, 2015)

According to Dubois, who defines it as the use of the Internet and the various communication networks and multimedia in achieving marketing objectives with the resulting new advantages and possibilities (Dubois, 2001), it also identifies as the needs of customers and satisfy the needs in a way that profits companies to ensure the survival of using the coverage of modern communications of the Internet and electronic marketing aimed at a specific group of customers are a mixture of ordinary people in addition to companies as was referred by. (Liozu & Hinterhuber, 2013)

Through different definitions it could be concluded that e-marketing is a set of reasons and technical means used to study the needs of the consumer and to deliver goods and services to them using a digital network and has special advantages compared to normal marketing.

E-marketing is a special case of marketing as a kind of it and as its latest form

of development, it’s also the traditional marketing division that relies on its strategies on the international telecommunications network. It aims to rationalize Internet marketing practices. Besides as mentioned by Jang, Hu and Bai that the traditional marketing and e-marketing support to each other, publishing web addresses in traditional communication agencies, helps to define the organization's presence in the virtual world, and vice versa. (Jang, Hu & Bai, 2006)

Types of E-marketing**:** According to Kotler who suggested that institutionalized marketing can be classified into three main types: External Marketing is linked to traditional marketing functions such as designing and implementing marketing mix (product, price, distribution, promotion). While Internal marketing is linked to the employees within the institution, since the organization must follow effective policies to train employees and motivate them to communicate well with customers and support employees to work as a team seeking to satisfy the needs and desires of customers, every individual in the organization must be guided in his work with customers. In addition to the Interactive marketing which is linked to the idea of quality of services and goods provided to customers mainly and intensively on the quality and relationship between the seller and the buyer. (Kotler, 2002; Kotler, Kartajaya & Setiawan, 2017)

Importance of E-marketing: The importance of electronic marketing has become a necessity for the success of modern organizations and it is necessary to include this marketing style in the activities of the inclusion of the importance of electronic marketing in several points. such as the adoption of online companies in marketing allows them to display their products and services around the world without interruption; Reduce corporate expenses; Effective communication with partners and customers in the context of globalization; Some of these companies have significantly increased their revenues through the network by marketing their own goods and services; The function of electronic marketing to achieve coordination and integration with the rest of the functions of the organization, such as: (production function, procurement function, storage function, financial function and R & D function and other functions). (Al-Adayla, 2015; Jilali, 2015)

Characteristics of Electronic Marketing: E-marketing is distinguished by its characteristics such as: The service is extensive; Global Electronic Marketing; The

speed of conceptualization; The importance of advertising through the international network; Phishing and phantom companies; Narrow the distance between companies; Accept non-network promotion means as mentioned by (Jang, Hu & Bai, 2006; Brissem, 2017)

1. The Functions of E-marketing

E-marketing includes various functions with different functions however; some points will be mentions below:

Communication: It is the exchange of information by introducing products and services electronically via the Internet, with an explanation of their characteristics and advantages of using them this will be done by building customer relationships by “e mail, E-mail track, use network by discussions between a group of users on a particular topic and Chatting”. (Al-Teet & Nakhleh, 2014)

Selling: Those working in the field of marketing must be aware of the implications of selling and marketing on the Internet, especially since the network is spread globally and can be accessed around the clock. The employee in electronic marketing must be ready to answer any inquiry from any individual in the world through: Marketing services and products over the network by marketing the commodity, service or brand of the organization or company via the Internet, as it includes all activities and businesses that take place over the Internet around the world with the aim of attracting new customers from all over the world while retaining existing customers. (Nabila, 2017)

Content Provision: It is a website that supplies different types of information via the Internet and also provides websites with texts, graphics, articles and new developments so that the website content is more attractive and useful to its readers and visitors by providing users with information related to the actual product. (Manal, 2015)

Provide Network Function: Any provision of services that will be provided by the network such as: Facilitate access to content, conducting a type of accounting or exchange process for the client's account and Providing support and support services for online vendors and buyers. (Yousuf, 2018)

E - Marketing Objectives: E-marketing has many goals and may differ from one company to another this is according to the nature of work and size and objectives and other traditional marketing methods that are used with electronic marketing. It is not just a Facebook page and it's finished, it's an integrated system that works together to achieve goals that has been studied and previously determined numbers whose performance is continuously monitored and improved (Liozu & Hinterhuber, 2013). According to Dubois who mentioned them in points: Increase the percentage of sales and achieve your selling goal; grow your company name and spread it to the market among the largest companies in your field while maintaining the company's budget; Owning a broad and powerful database of potential customer data; Get your products and services to your customers very quickly; Access your customers to you anytime, anywhere on the Internet; Make better use of the marketing budget and more effective; Ensure that your money is recovered from your marketing activities and more;To register your website a better number of competing sites and appear in the first search engines; Differentiating and distinguishing the way you display your products and services from competitors. (Dubois, 2001)

2. The Motives of Electronic Marketing

Many large and small companies are moving towards e-marketing because a lot of them are managing a growing proportion of their B-business sales. Most of their revenues come from e-commerce sales. (Manal, 2015)

There are also justifications that support the ability of electronic marketing to differentiate the activities of the company and its products. These rationales are the main motives for resorting to electronic marketing. These are the prices of products that are marketed on the web compared to other commodities sold through traditional stores. Make a comparison of the prices of products before buying them better and faster, in addition to electronic marketing systems enable consumers to search and obtain special types of the amount and easier and faster than to obtain and search for traditional forms of shopping. (Abdul Rahim, 2007)

3. The Effectiveness of Electronic Marketing

For e-marketing to be successful and effective, it should have a number of elements:

Benefiting the Customer: The organization should endeavour to provide an adequate and clear benefit from offering the product (commodity or service) over the Internet, at the level of this benefit the customer's decision to repeat or not to repeat the purchase process. Therefore, the content of the website should include all the promotional services that respond to the wishes of the customer, and the organization should seek to differentiate by offering unique and distinctive benefits to its customers. (Pawar, 2014)

Integration with all electronic business activities: The organization should strive to integrate e-marketing and the rest of e-business activities so that these activities are reflected at every stage of the e-marketing process. For example, the sales process cannot be successfully completed if there is no interaction and integration with the online payment systems, and if there are no effective security and protection systems. (Rata, Aranda & Basáez, 2015)

Ability to Display the Contents and Services of the Website in an Effective Way: The various content and services within the website should be presented in a manner that is appropriate to the new nature of e-business, and different from traditional business practices. The content of the site should include three basic marketing aspects: Provide the necessary and sufficient information about the products offered for sale through the Internet, Enable the client to communicate and interact with important elements in the marketing process, such as vendors, site manager, reference groups and finally, to achieve the exchange process effectively. This requires providing all of the following needs and desires of the client, beside provision of services, and supplementary to the product (commodity or service). (Manal, 2015; Schwarzl & Grabowska, 2015)

Simple and Innovative Construction of the Website: It should be built in a simple and innovative way that makes it easier for the customer to obtain data and information and to conduct interactions and exchanges. For example, the number of links leading to the final information should not exceed three links, steps, pages, or

layers, and this is necessary to quickly facilitate and complete the process. According to Chaffey achieving this requires balancing between three interrelated elements: Offer, besides provide sufficient and necessary information with the shortest possible to maintain customer time and achieve speed; providing accurate information that the customer is looking for exclusively, finally Good organization of web pages. (Chaffey, 2009)

B. Gamification

1. The Usage of Gamification in Marketing

Gamification in marketing is an important strategy for increasing user participation, as well as increasing the organization's name and logo through certain actions, activities and mechanisms that encourage the implementation of specific behaviours, and increase motivation and participation. (Abou Seif, 2017)

Gamification is one of the recent trends that can help increase the participation of users of electronic programs by motivating them with mechanisms based on motivation and stimulating the internal desires of the user in terms of quality, shape and imagination on the site that allows new discovery, and feedback from the rate of participation. (Huotari & Hamari, 2012)

For instance, the concepts of marketing as the beginning of an appropriate description of the general context of gamification, which can be clarified in the following points: first of all the participation, which is the importance of the trademark of the consumer, besides the development of emotional linkage between the consumer and the name of the organization, the second point is the loyalty of trends, while the third point is the awareness of the brand, to the extent of the organization's basic knowledge and name. (Hamari, 2013)

Applied to the gamification, it increases the user’s loyalty and participation through its virtual promotion mechanisms, scoring points, reputation, and virtual social status, making the user's name known to the marketer. (Thorpe & Roper, 2017)

Huotari & Hamari also added that gamification is not just a technology addition to the old participation models, it is an integrated strategy used by the

organization to enable the interaction of its customers through the application of various elements of the game are applied in a variety of circumstances to increase the motivation of customers in order to revisit their services is loyal and persistent. (Huotari & Hamari, 2012)

It can also be pointed out that there are three reasons for the use of gamification in marketing: Motivating users and influencers of marketing to the organization because it has been shown that the statistics of gamification dramatically increase sales rates for trademarks, agencies and publishers globally, as it relates to the social status and the desire to accomplish, and that gamification to help achieve marketing objectives. (Puleston, 2013).

Based on the above the gamifiying services and the continuous participation of users leads to a modification in their behaviour towards the trademark.

The study of Xi and Hamari, also found that there is a correlation between gamification strategies and attracting and retaining users. Gamification has become an addition to its value in marketing practices, but this depends on a clear objective in the organization. Therefore, many of the models used for gamification begin with the goals of the organization and then formulate the gamification strategy based on them. (Xi & Hamari, 2019)

The Werbach and Hunter model, which is the most famous of the gamification, consestes of six steps called (6D): Define Business Objectives; Delineate Target Behaviours; Describe Your Players; Devise Activity Cycles; Don't Forget the Fun!; Deploy the Appropriate Tools. (Werbach & Hunter, 2012)

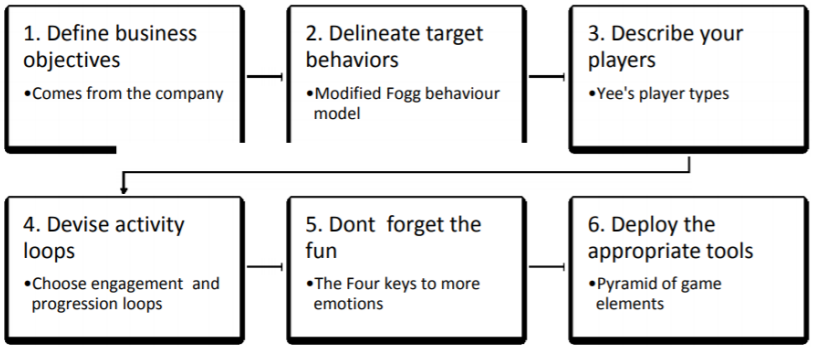

Figure 2 Steps of Gamification Design

Source: (Werbach and Hunter, 2012)

The Components of The Model Can Be Addressed as Follows:

Define Business Objectives: Defining the objectives of the work (organization): represents the first step and includes the development of the objectives needed by the gamification system, and this does not include steps or tools, but includes the objective behind the application, and then must be put the objectives of the organization in a clear list and identify the means and mechanisms that will be used to convert them to the gamification system at this stage, the usefulness of the gamification system in adding value to the organization needs to be carefully determined.

Delineate Target Behaviours: It determines what the program designer and organization need from users and how these behaviours are measured, and the target behaviour must be measurable and can be measured by points and winning situations. At this stage, attention should be paid to a range of other things: identifying success indicators for accomplishing gamification targets, ways to measure success in winning, and developing analytical techniques such as daily and monthly usage and number of entries.

Describe Your Players: Players are the individuals who will use the system, so it is important to identify them, describe them and describe their needs, because their needs vary, from which the program can be created to cover most of these needs. MMOG's Bartle's (1996) model was presented as the most appropriate to identify players. (Bartle, 2009)

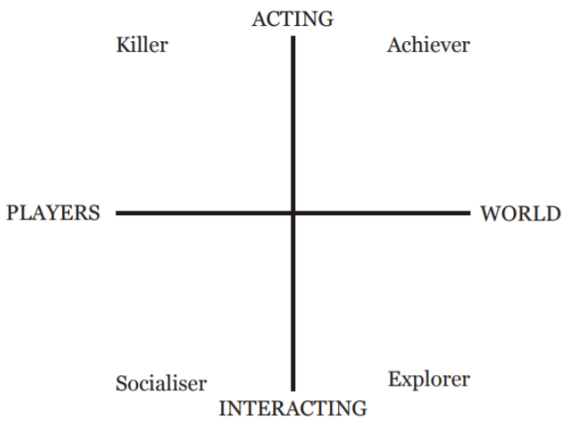

Figure 3 Player Interest Graph

Source: (Bartle, 2009).

As shown above, players (users) have a group Properties collected in four types can be addressed according to Bartle as follows: Achiever: is a style of player who prefer to earn points, levels and equipment to succeed in the game, on the other hand, Killer: is a type of player whose entire participation is based on others, and the most important thing to play and integrate in the game is to score the highest points from others, and defeat them overpowering. However, Navigator: is passionate about discovering unknowns, mapping, and learning about hidden areas. He is not primarily interested in earning points and levels more than a new discovery that is, seeking to find out what is possible within the limits of the game. While, Socializers: This type of players is interested in playing with others, and sharing experiences with them, and therefore social experience is separated from the goals of the game. (Bartle, 2009)

Devise Activity Cycles (Loops): This explains that the structure of the game and its components can be treated as a loop, and that the game has a set of loops repeated and connected and has an end. There are two types of loops: participation loops describe what the players are doing at the micro level, why, and what the system does, and the important part here is that the system displays immediate feedback to the user to motivate it to continue, and the second progression loops give a perspective on the player's journey at the macro level, which gives the impression of changing the experience of the player's progress in the game. (Salcu & Acatrinei, 2013)

Don’t Forget the Fun! Pleasure is the essence of gamification, as demonstrated by Lazzaro, who divided the pleasure to play into four sections:

Strong pleasure: This fun comes to the player to overcome the difficult challenges of the game, and it creates a constructive emotion to reach his goal, and these emotions is the frustration and joy of victory, and suitable for this type of players who want to defeat opponents and have a variety of goals, and love to plan more than luck.

Easy fun: Easy fun focuses on the player's attention and focus more than the winning situation, and it is suitable for players who want to explore new and love the excitement and adventure.

Player (key to internal experience): It is linked to the generation of emotions with perception, thinking, behaviour and other individuals, and therefore is linked to the relationship of the form of the game and the emotions raised within the player.

Other players: Social experience this pleasure comes from creating opportunities to compete with players and cooperation and performance. (Lazzaro, 2004)

Deploy the Appropriate Tools: Using the right tools to design the game is critical to its success, and the game's tools are its components, the dynamics of interaction, the nature of the interaction, and the construction of the playing system using the structure built during the first five steps. (Werbach & Hunter, 2012) Three steps have been added to this model after the gamification launch: Create prototype; Implement gamification; Follow up: tracking, further development. (Kuutti, 2013)

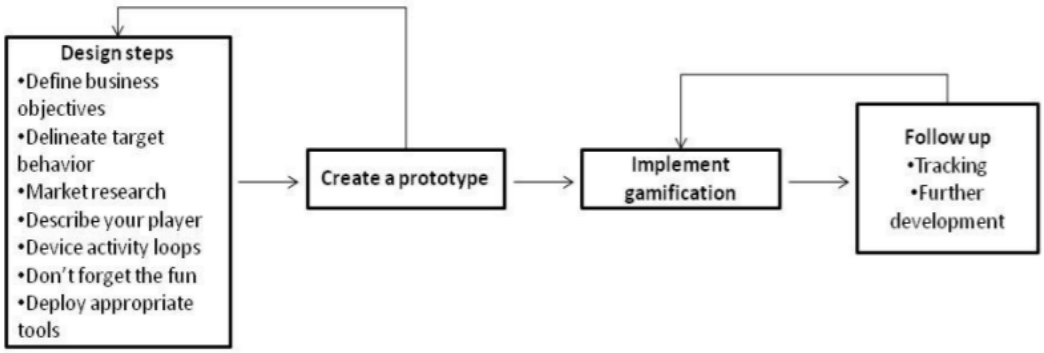

Figure 4 Model to Use Gamification in Marketing Services

Source: (Kuutti, 2013)

It is clear from the previous model that the gamification can be applied in marketing organizations' services through a set of steps, starting with reviewing the marketing strategy of the organization, identifying the desires and needs of users of its programs and services, identifying the targeted outputs of the gaming program, then thinking about the use of fun and playing in marketing the work of the organization.

Based on the theories of psychology and sociology in determining human behaviours to be motivated for user loyalty to the programs offered, then designing

manipulative mechanisms such as points, feedback, challenges, promotion and others, then the experimental implementation phase to identify the problems of its implementation and requirements from the field, then the stage of the actual implementation of the program, and finally comes the evaluation phase using high electronic technologies such as that found in strong sites and social networks.

2. The Concept of Gamification

A new term derived from the word "Game", it first appeared in commercial marketing to promote brands, and then moved to other fields including education, health, media and training.

Nick Pelling was first used this term in 2002, and the term did not become known until 2010 (Eikelboom, 2016), until now there is confusion between the gamification as term with others which have the comparable meaning, such as behavioural games, funware, applied gaming, productivity games, the game layer of a process, or playful design. (Wood & Reiners, 2015)

Then in 2011, companies from all over the world in various fields began to develop gaming-based platforms in order to achieve their goals. (Eikelboom, 2016)

There have been many attempts to reach a clear definition of the concept of gamification, and the results of these attempts will be shown:

The word gamification has become binding and meaningful with reward. Most gamification systems rely on adding points, levels, collections, and imitating the real factor in order to get people to engage and integrate with the real world to get these prizes. Just as prizes are used with children to change their behaviour, gamification is used to incorporate individuals into activities. (Nicholson, 2012)

For instance, Bunchball defines the gamification as a systematic way to use activities other than gaming activities to influence the behaviour of individuals. (Bunchball, 2010) Or rather it is the process of integrating and integrating game elements to encourage individuals to adapt to useful applications (Ozuem & Borrelli, 2015).

While Zichermann who defined gamification as "the process of using gamified thinking and game mechanisms to engage or integrate with the people and

solve problems (Zichermann & Cunningham, 2011).

In addition to the previous Kapp defined gamification as applying the elements of the electronic game in order to achieve a specific goal, solve a specific problem, increase motivation towards achievement, or improve the level in other non-recreational areas such as: media, marketing, health and education. (Kapp, 2012.p10)

According to the definition of Deterding, et al, 2011 gamification means the use of game design elements in contexts other than game contexts. Most gamification applications currently rely on providing rewards or external rewards for certain activities: for example, you earn points for being loyal and progressive to encourage progress and competition, and wanting to visit certain types of places and accomplish in order to reach fitness goals. The gamification system employs reward or external motivation elements that help integrate and engage people in specific activities. (Deterding, et al, 2011)

As stated in the Oxford Analytica reports the introduction or application of elements of the game in other areas of life, specifically the application of these elements in the field of education. (Oxford Analytica, 2016)

Gamification is a relatively new term, but it is not a new concept. Gamification origins date back to the digital media industry. The term spread in 2008 and Gabe Zichermann was the first to use the term gamification in its definitions.

From the previous definitions, the researcher considers that Gamification is taking the elements of the games and using them in various aspects of life to make the real world more interactive.

The goal of Gamification could be reached by breaking the boring atmosphere and give the pleasure of turning the work into an entertaining game.

From the previous definitions it could be seen that gamification is based on the transfer of the mechanisms and elements of the game to other fields… however, what is meant by the elements of the games that are mentioned in the previous definitions?

No matter how different the games are in their types, goals and techniques,

they share a set of fixed elements that make them more interesting and stimulating, one of these is the elements you know well when playing a game: Points; Leader-board; Challenges; Rewards; Badges and others.

Is simply moving these elements to other worlds far from playing that we might call Gamification? This was an old practice applied in many areas of our lives, for example through competitions and tests, but it is a new practice or a new direction in relation to technology, and an old practice in relation to public life. Gamification as a practice has already existed for decades, but as a concept and term is new because it represents a new strategy close to the world of technology. (Kapp, 2012)

The Element of Gamification: Gamification is based on the transfer of the mechanisms and elements of the games to activities in other fields, so that these activities become more fun and exciting just like games, and regardless of those games in different types, objectives and mechanisms, but they share three elements representing the foundations of Gamification, as Oxford Analytica, 2016, p.p.10-13 has mentioned those elements: (Oxford Analytica, 2016)

Mechanical Elements: They are also called self-elements, because they affect the behaviour of players, and are an essential part in the design of the game, the most important of which are: (Wood & Reiners, 2015; Kocadere & Çağlar, 2015)

Progressive Progress: If the game is very easy, or very difficult, the player in both cases will not want to continue, so must be the complexity of tasks to ensure that the player acquires additional skills to enable him to continue the same impulse.

Badges: Progressive progress in the game is subject to encouragement, so visual symbols must be presented after each achievement. These symbols are called badges and their significance lies in moving the player to more advanced levels to achieve the ultimate goal of the game.

Integration: The integration process is concerned with the initial interaction of the player with the game, and is used to help the player to identify the mechanisms and objectives of the game, and integration can be achieved through the presentation of educational clips aimed at guiding players in the first minutes of play.

Immediate Feedback: Games should be designed to be responsive, so that the

consequences of the player's choices or actions appear immediately upon the decision, because a long delay of the feedback may lose its relevance, especially if the player is threatened or missed opportunities while advancing in the game.

Personal Elements: Also called social elements, because they are related to the player's personality and behaviour during group activities, the most important of which are:

Visual Status: Games provide a virtual character of the player called "Avatar," a representation of the human character within the game and can be seen by other players, and avatar characters vary in a way that allows for personal expression and creativity, and the importance of Avatar is that it allows players to adopt new roles, and make important decisions from a personal perspective unfamiliar to them, which increases the attractiveness of the game.

Collective Responsibility: These games are based on the concept of teamwork and cooperation between individual team members in order to accomplish activities or tasks. The main motivation is that the player does not fail the rest of the team.

Winners or Leader Boards: Competitive games are about ranking players based on their achievements, and the scoring system is often used to rank players in the winners panel, one of the drawbacks of these panels is that the latecomers may lose confidence and motivation in completing the game, especially if the difference in points between them is significant.

Emotional Elements: It is based on a principle called "flow", which means reaching players to a state of total focus on the task required, and to achieve the flow must meet three conditions: clear objectives, immediate feedback, and the balance between challenge and skill.

Figure 5 Elements of Gamification

Source: (Oxford, 2016)

The Difference between Gamification and Game-Based Learning According to Steven Isaacs: The games: Whether for fun or competition or to learn but not necessarily be part of education; Educational games: The game is designed to achieve specific educational goals; Gamification: the concept of attaching a game element to nongame state (Lsaacs, 2015)

Components of Gamification: as demonstrated by Hunicke who divided the play components into three components: (Mechanics), (Dynamic), and (Aesthetics) to which they are interested gamification in a division its components can be illustrated in the following form: (Hunicke, et al, 2004)

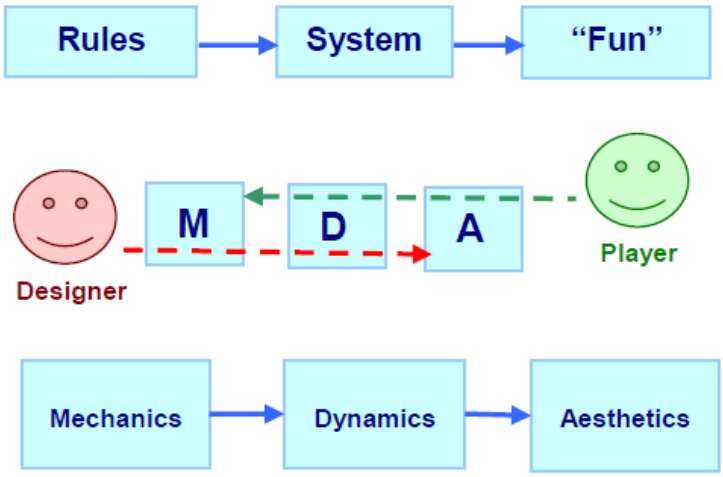

Figure 6 Components of Gamification

Source: (Hunicke, et al, 2004)

The components can be addressed in detail based on some of the other models that have been applied in many of the areas and components that will be addressed in the current research are the dynamics of the game and the nature of interaction during play by the user and its behaviour towards the dynamics of the mechanisms, and the aesthetics of the game, which describes the emotional responses evoked during the interaction within the game These can be taken as follows:

Mechanics: These mechanisms are the functional components of the gamification application, which provide mechanisms for interaction, behaviours, and control in a variety of ways to help the user interact with the game.

These dynamic mechanisms are decisions taken by the game designer to determine the goal, rules, settings, context, interaction patterns and position limits within the game, which do not change from a player to another, remain fixed with the same player if he tries to re-enter the game. (Hunicke, et al, 2004)

Dynamics: While interaction mechanisms constitute the functional aspect of gaming, the nature of the interaction determines the individual's reactions to the use of the mechanisms that have been implemented. These interactions seek to satisfy the needs and desires, including the desire for reward, self-expression, enthusiasm and competitor.

The nature of the interaction forms the behaviour patterns of the player that

appear by participating in the game, in contrast to the mechanisms developed by the designer, and describes the nature of interaction behaviours and practices and strategic responses during the game. (Zichermann & Cunningham, 2011)

The nature of the interaction is the highest component in the game as it differs from the rules and laws of the game, it is an implicit structure that includes conceptual factors that make up the framework of the game and make the game more coherent.

The nature of the reaction includes the following human desires as referred by Deterding

Reward: Status to accomplish; self – expression; the competition; Altruism. (Deterding, et al, 2011)

Aesthetics: While game mechanics reflect the way in which games or systems transform specific inputs to specific outputs, and the nature of the interaction guides how players interact and game mechanisms during play, the game's beauty refers to the way the mechanisms and the nature of the interaction interact with the skills of the game designer to arrive at As aesthetics expresses the desired responses and the appearance of the game, where the responses are desirable sensations that are raised within the players in the exercise of the game and desirable responses are fun, credibility, surprise, satisfaction, happiness, jealousy and pride.(Ko, Park & Ahn, 2016)

The appearance of the game in the visual elements appear in the game to attract the attention of the user and are represented in the colours and diversity and originality and joy and the art of displaying the stages of the game, the game's aesthetics have been expressed in fun which are formed in the following as mentioned by Zichermann & Cunningham**,** first the Sensation: which is the happiness of sensation comes through outstanding processing of the scene, sound and space in the game, second the Fantasia: through the player's entry and integration into the life of the game so as to achieve what he cannot achieve in the natural. While the third is the Fiction: From the player's withdrawal of the scenarios of the fascinating events that accompany him throughout the playing period, forth the Challenge: The challenge comes through interesting forms. Fellowship and finally

the Dependency: The way other players are presented, the ways in which the competition is presented, the times and the challenge is attracted to the group. (Zichermann & Cunningham, 2011)

3. Gamification Goals

Gamification aims to make the student learn according to a set of steps and challenges mechanisms, techniques, characteristics and elements in order to solve problems or improve the level, and depends on the characteristics of users age, physical and mental, and therefore aims to make activities (beyond the scope of the so-called games) more fun and interesting like games, users benefit from past experiences in electronic games, which are the dominant form of entertainment in modern times to create interesting experiences and have a beneficial impact on the user. (Modell, 2018)

4. The Importance of Gamification

Electronic games are the dominant form of entertainment in modern times because they strongly stimulate behaviour, and gaming mechanisms can be applied outside their entertainment environment, to create interesting experiences and to award and recognize rewards.

Gamification is not limited to tablet games; however it also includes electronic or multiplayer games. Its uses cover various fields while its importance could be summarized according to Negruşa, the gamification is an educational tool that converts educational concepts and helps in their realization. It also works to stimulate the thinking of the user to accommodate work environment concepts besides it helps to install concepts, where the user is active physically and mentally and finally it allows users to work freely, the manager has the opportunity to pay attention to the individual needs of some users. (Negruşa, et al, 2015)

The Importance of Educational Gamification also has been mentioned by Negruşa, in more details it could Develops verbal and nonverbal communication skills; beside It is considered as a way to get rid of the psychological pressures that occur from educational practices or socialization; It is an inherent tendency through which learners get pleasure, and entertainment; it could also Facilitates learning

difficult processes; Urges self-learning; it helps the students to have the ability of decision-making and take responsibility; Narrowing the gap between female and male students in academic achievement; Enhance what students have learned and give them an opportunity for meaningful review finally, it Increases the motivation of learners to learn and provide element of competition, luck and excitement. (Negruşa, et al, 2015)

5. The Benefits of Gamification

The benefits of Gamification are numerous in various aspects:

The Psychological Benefits of Gamification: Provides the opportunity for the users to express their need and tendencies and desires; Gives the user the opportunity to change; Helps the growth of their change and expression of the users to be more susceptible to learning and increasingly exciting and attention to education; Create the psychological state of the users and satisfy their psychological needs such as freedom, order, security, solution, meeting, and leadership. (Negruşa, et al, 2015)

The Benefits of Gamification for Mental: Increasing the user's ability to understand and assimilate; Development of the senses of the user and linked to the processes of perception and learning; Create a climate for the user to try innovation and creativity; Self-training on control and self-control; Helps to stimulate the mind of the user to think independently, as in getting rid of predicaments, and solve puzzles. (Sardi, Idri & Fernández-Alemán, 2017)

Social Benefits of Gamification: Helping the user to integrate with society and away from individuality; The user learns the true meaning of the laws and customs of society; Helps the user and provides him with opportunities for some positive social roles; Gamification provides the scope to evaluate the user’s creation; It helps the user to recognize the abilities and creative talents or collective through various activities and games. (Sardi, Idri & Fernández-Alemán, 2017)

Educational Benefits of Gamification: Gamification in Education is an educational approach to motivate students to learn using game elements in learning environments, with the aim of maximizing fun and participation by attracting learners' interest to continue learning. (Martí-Parreñoa, Seguí-Masa & Seguí-Masb, 2016)

In the educational context, play can affect the student's behaviour by motivating him to attend the class with greater desire and longing, focusing on useful educational tasks and taking the initiative: Excite the spirit of competition with oneself or others; Learn to cooperate and respect the rights of others; Provide for those who practice the feeling of enjoyment and win; Increase the comprehensive capacity of the student; Help promote problem solving and develop thinking skills; Building vocabulary and increasing linguistic wealth; Achieving cognitive goals such as discrimination and practice in grammar, arithmetic skills and equations in chemistry and physics. (Martí-Parreñoa, Seguí-Masa & Seguí-Masb, 2016; Bishop, 2014)

The Oxford Analytica Report as well as Stott and Neustaedter, pointed to several benefits in applying Gamification in education, including:

Freedom of Failure: The learner is given the freedom to make mistakes while playing and trying again without any negative repercussions, where failure becomes of minor importance and is not a concern for the learner.

Freedom of experience: The learner's freedom to fail will give him the freedom to own his learning, which makes him more ways to learn, which increases his motivation towards self-learning and continuous

Freedom to Effort: Linking education to real life through gaming applications can inspire the learner to discover his own motivations and personal desires towards his or her preferred type of learning.

Machine learning: Electronic gaming applications provide a variety of tasks that motivate the learner to perform, and are then evaluated automatically, rather than passing the learner's traditional tests. (Oxford Analytica, 2016; Stott & Neustaedter, 2013)

Indicators of progress: This means that the learning outcomes are clear, thanks to the learner's achievements in practical tasks, such as accumulating points, moving to a higher level, completing the task and achieving goals.

6. Cons of Gamification (Oxford Analytica, 2016; Osaimi, 2016)

It should be borne in mind that game applications are not a magical solution

for learning and in case of misuse may contribute to a less effective learning environment.

Attention Deficit: In the case of a poorly designed programme, users may discover a way to achieve the goal of the game, which does not require learning. In light of this, education based on the application of games may redirect the attention of a user who wants to learn about a particular subject to a user looking for gaps in the game to succeed easily.

Social Tension: Failure to implement games applications will create environment tensions and reduce education.

Material Rewards: Perhaps the greatest risk of gaming applications prioritizing physical rewards over moral rewards, but by turning the learning process into a search for points, badges or stages will help to underestimate the rewards offered for learning a new skill.

7. The Main Aspects of Gamification Design

Marache-Francisco believes that there are three main aspects behind the design of gamification: sensory movement techniques, which are produced through the use of sensory machines and tools when using games beside the emotional incentives and commitments, which are the result of the interaction of the game with the people who use it and the cognitive dimensions of the design of the gamification interaction and is related to the extent of user understanding the game or not and all these aspects are linked and overlapping together and we will address as follows: (Marache-Francisco & Brangier, 2015; AlMarshedi, et al, 2017)

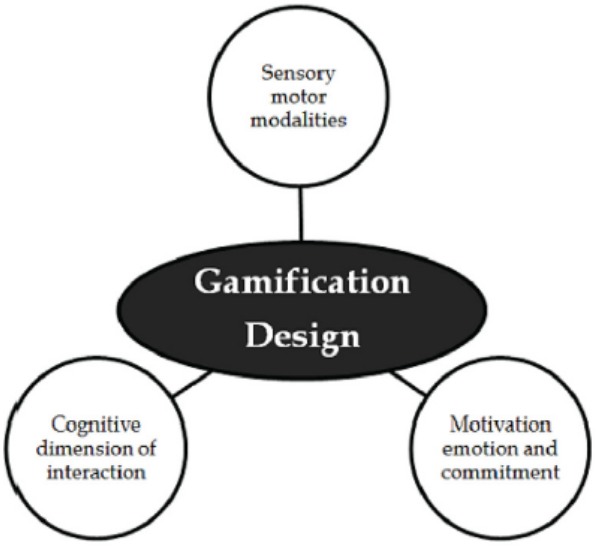

Figure 7 The Three Dimensions of Gamification Design

Source: (Marache-Francisco & Brangier, 2015)

Sensory-Motor Modalities: It is the introduction of visual games based on the activation of the senses of sight and touch and helps this type of games to connect the senses to the surrounding environment and the acquisition of information and the survival of its impact for a longer time, since the visual elements are the most obvious in this type of gamification must take into account the design of visual elements such as colours, images, the graphics are two-dimensional and three-dimensional clear and consistent throughout the entire game taking into account the possibility of switching colours to suit the user and must take into account the target group of that game before design. also do not overlook the importance of using sounds and sound effects and their role in activating gamification during gamification design, beside a set of sound effects could be developed when the user touches the game as a reaction to a movement and may be accompanied by a vibration as it is found with the joystick in video games when the user hits a target, feel the vibration in the joysticks making it closer to being realistic. (Marache-Francisco & Brangier, 2015)

Basic and Primary Design Principles: The Items must be aligned and uniformly spaced; There should be a good balance between differences and elements of unity; The user's eye should be guided by the composition through lines, shapes,

colours and shapes; The whole must be balanced either through symmetry; A short list must consist of an odd number of items.

Motivation Emotional Commitments: The main task of gamification is to engage users, encourage them and motivate them to work and is done through stimulating them and arousing their emotional feelings, at first, gamification depends on the user's need for fun to provide him with a simulation of a certain reality and then allow him to use all his senses by displaying a range of visual stimuli and acoustic and sensory while performing a set of tasks in which he gets a set of points or badges of excellence and then may use those points in certain work such as the acquisition of educational experiences or share its achievement with peers.

When designing gamification, the social needs of users should be taken into account, as the game should aim to create a set of good qualities and values, such assistance and gifting is done through an engaging competitive atmosphere.

There are also two other fixed criteria, "personalization and gravity" Personalization is intended to provide the user with the possibility to customize content to him and this happens through the interface of the gaming system or through the allocation of a specific target for gaming or vote on a particular part of the system.

As for gravity, they occur through the use of visual and acoustic stimuli in their various forms within the gamification system and contribute to making learning more attractive and more impact on the user. (Marache-Francisco & Brangier, 2015; AlMarshedi, et al, 2017; Kumar & Herger, 2013).

Cognitive Dimensions of Interaction: Through sensory aspects and motivational methods of gamification, it leads users' behaviour towards accomplishing specific tasks in advance through elements of games that go hand in hand with the user and guides them to progress through the system, these games are characterized by their ability to adapt and interact with the user.

The cognitive dimensions of the interaction are in the first minutes of gaming where the game is easy and there is a set of instructions described and sequenced to help the user to move forward. (Fredricks, Blumenfeld & Paris, 2004)

There are Three Components of Gamification**:** According to Marache-

Francisco who sees that the gamification is divided into the three following components:

Information: It is intended to provide information about events, gamification results, agent information, roles, and information about objects, features provide enhanced knowledge and understanding of the whole gaming system.

Rules: It is intended to provide information on objectives, sub-goals and tasks to be performed during gamification and to clarify the correct path in addition to providing additional options for it.

Objectivity: It is intended to provide assistance in its proper context and to give meanings and clarifications about the elements of the game. (Marache-Francisco & Brangier, 2015; AlMarshedi, et al, 2017)

8. The Pillars of the Strategy of Gamification E-activities:

Make points collected by the user a phased incentive to accomplish a specific task; designing the e-activity in a gradual level with the possibility of re-levelling to upgrade the skills; Design a board for the distinguished stage or game associated with e-activity; make e-activity a set of challenges that attract outstanding users and motivate their development motives; Reinforcement is an important component of electronic activities based on the principle of gamification, ranging from positive reinforcement with gifts, awards or passive through the reduction of points and so on. (Kapp, 2012)

9. Uses of Gamification Strategy in E-activities

There are many educational uses of Gamification Strategy in E-activities that can be an important tool for developing user knowledge and skills.

Initialization, where the goal is to gain an idea or stimulate an idea with a theme that is placed in the form of a game through an electronic educational activity, whether within the allocated time period or training period if available within the organization or can be reached through the home user network where the user can use the activity through the e-learning system the day before the training. E-Gamification strategy considered as:

Activate User Responses While Presenting the Topic: The use of gamification strategy to activate users and move the atmosphere and banish boring and indifference to users, as well as the use of this method increases the motivation of users towards learning and competition. (Urh, et al, 2015)

An Explanatory Attribute of Complex Concepts: Gamification strategy is used to illustrate complex concepts in a simple way, what is needed is an electronic activity with the components of the concept or stages and the way the user in the completion of the activity is to go through the components of the concept or stages of the game. (Cavaco, et al, 2016)

Progress Calendar: At the end of the activity, the administrator can run a competition between users to accomplish a specific e-activity related to the activity that he has submitted, so that he was able to evaluate his activity by observing the performance of users in the e-activity. (Hanafawi, 2017)

10. Gamification Tools and Applications

In fact, there is no single formula for the application or service of a product that supports gamification. However; there are common elements and they are naturally inspired by the real gameplay literature known at the level of actual video games, especially those practiced online.

Recently, it has been seen that gamification tools used in fitness field as fitness tracker as an example of that in the USA as mention in Endeavour Partners report 2014 that 10% of USA adult has own this tool. Nike's fitness tracker as an example of the trackers used in USA, the Nike + Fuelband records 1 billion "fuel" points earned by Fuelband users each day, the average number of Fitbit tracking users reaches 43% of the steps per day. (Biyani et al, 2015)

It couldn't be predicted from this kind of statistic, that how the gamification might could participate in the future fitness fields.

Figure 8 Evolution of Fitness

Source: (Biyani et al, 2015).

On the other hand, gamification has started to appear in the Arab markets with companies such as (GamifiedLabs) and (Gamifiers) in Dubai, where it has already started offering gaming solutions for brands and organizations, and the development of an appropriate applications on smart phones and the Internet.

The founder of Gamified Laboratories, Ahmed Al Rayyes, said he recognized the enormous potential and benefits that can come from Gamification in society, be it in education, marketing or related human resource activities.

An example of this is the gamification launched by the UAE e-commerce website (Wamli) two years ago, which makes visitors collect virtual money called (WamliCoins).

Which they can use to get product price reductions, they can collect them by interacting with various website pages like liking, products, sharing. Although gamification has not yet reached its full potential in our region, some have begun to rely on its capabilities to promote various operations in many sectors, although commercialization is at the forefront. (Al Qahtani, et al, 2015)

Here are Some Good Examples of Applications Using the Principle of Gamification in Education: (Al Qahtani, et al, 2015)

Quizizz:

It is a free tool that allows teachers to quickly turn introductory and review activities into fun and provide multiple activities for students running on any device

with a browser and the app allows you to create your own activities or use those previously provided by other teachers. The users do not need a user name and password. Students go to the Quizizz site and the game code provided by the teacher is entered. Once the contest is complete, a detailed report of the student responses can be downloaded and saved this feature allows the teachers to have a self-assessment report to each and every student, which is as a result give formative feedback as a continuing procedure to them in order to correct the mistakes and elevate and improve the performance of the students as a consequence of the above preservation of the time for teachers and the improvement of the students is the net goal. (Rahayu & Purnawarman, 2019; Göksün & Gürsoy, 2019; Pitoyo, Sumardi & Asib, 2019)

Figure 9 Quizizz

Source: (Sumardi & Asib, 2019))

Kahoot:

As gamified formative feedback application used by students which give them the ability to participate in discussions or answer questionnaires and exams providing an uninterrupted assessment to the users, it is considered as the most preferable gamified tool with a capacity of more than 30 million users around the world. There is one feature that distinguishes Kahoot from Quizizz is its ability to Empowering teachers to control the pace of the competition between the students. In addition, kahoot recently added features that allow students to complete activities for assignments besides to play in Ghost Mode where they improve performance and win dozens of times, when it comes to knowing how well a student understands Kahoot is by far the easiest and best gamification tool. (Bicen & Kocakoyun, 2018)

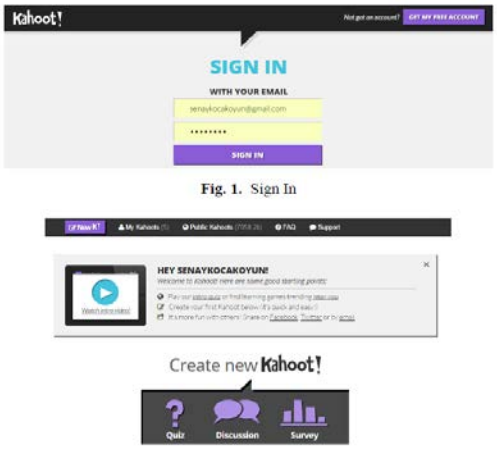

Fig. 1. Sign In

Figure 10 Kahoot

Source: (Şad & Özer, 2019)

Classcraft:

It is designed to change the way you learn, not what you learn by adding a "game layer" to the top of the class. The role of the teacher here is to run the game and determine the prize points based on the participation of students and the successful completion of specific challenges and learning activities. Each student here has his or her own personality and gets higher levels as students accumulate more and more points and students move through activities for instance it gives the teachers the real-time updates that they have made progress on other students. (Rivera-Trigueros & Sánchez-Pérez, 2020)

The dashboard in the classcraft allows you to set up for each class the respective set of rules and comes equipped with online lessons to help start teachers, its most important feature is its focus on group accountability, as in other games, and students are encouraged to work together in a team and be accountable to their peers. As a result, it is difficult for students trying to stagnate or fly under the radar. It is a powerful tool to change the way students interact with content and with each other. (Papadakis & Kalogiannakis, 2017)

Class dojo, which mentioned on its site, a statistic indicating that 90% of schools in the United States of America use this application, and many teachers, students, parents, students and school leaders have joined it in more than 180 countries. (Almahmowd, Alebaikan & Alorainy, 2019)

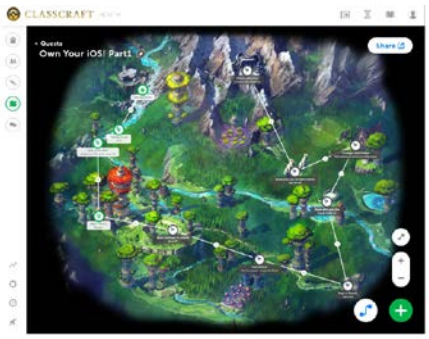

Figure 11 Classcraft

Source: (Mustafa, 2018)

Class Dojo:

This tool is the best choice for teachers looking for something simpler than classcraft. In contrast, middle school teachers often ignore them largely because of their use of cartoon characters such as those that seem to be directed towards younger students. It can be used to identify a particular thing or as a reward and track just about any kind of behaviour that can be observed in the classroom.

Teachers simply define a class mode, assign each student avatar and then assign any number of positive or negative behaviours you follow using a computer, iPad, or smartphone.

Dojo provides a number of ways to keep in touch with teachers, students and parents. There are reports on student progress and a variety of means of communication, including a two-way messaging feature to share the latest news and photos with parents, parents at home and vice versa. (Mora, 2020; Hursen & Bas, 2019).

Figure 12 Class Dojo

Source: (Figueroa, 2015)

Duolingo:

This application is considered as one of the most famous applications for learning languages such as (English - Spanish - French - German - Portuguese – Italian…etc.), it's also represents as one of the most popular English language learning websites for free, It provides a useful example of how to use a wide range of gameplay mechanics and how game elements can be incorporated into learning activities, in order to make them more engaging and an effective educational tool. In 2012 the application reaches to more than 300000 users, within years it has 59 various language courses across 23 languages in 2016. (Almahmowd, Alebaikan & Alorainy, 2019, Huynh & Iida, 2016)

In order to give the users, the opportunity to practice the language skills, such as written and speaking tasks, besides the exams or tests which, given the user the motivation to upgrade their levels by attaining the experience points. It employs fun and entertaining learning by collecting points, setting levels and then moving to higher levels. (Gimeno-Sanz, 2017)

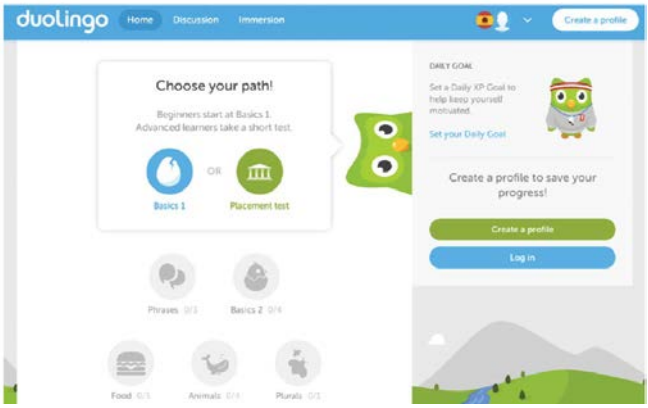

Figure 13 Duolingo

Source: (Rachels & Rockinson-Szapkiw, 2018)

Examples of Applications Using the Principle of Gamification in the Development of Daily Life: (Biyani, et al, 2015)

Habitica RPG:

This gamified application is the structure of role-playing games of the old school (RPG). It's always motivating the users to do particular list. When the users get things done, they can earn points and progress in order to develop an experience

for the character used by the users, which makes writing lists more fun and competitive. What's good is that incomplete or delayed tasks will cause penalized, the users can also receive some tips from other users, and give an advice to others, which makes the process of accomplishing tasks participatory process to help you continue. (Toda, et al, 2019)

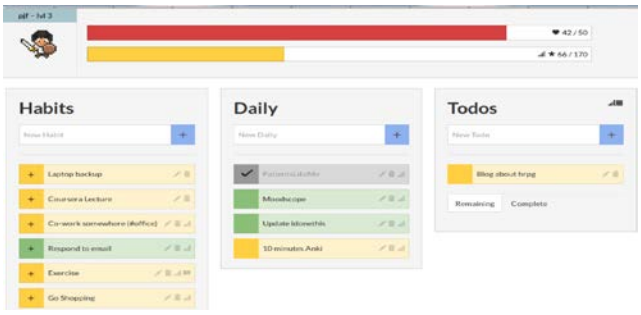

Figure 14 Habit RPG

Source: (Toda, et al, 2019)

Epic Win:

This IOS gamified application it is similar to Habit RPG which, required from the user to-do-list. It has an easy mechanism such as identifying on the completed tasks and accomplishing goals, by gaining virtual money to develop skills of each character the users use. One of its beautiful features is that you can determine the skills required for each task, is it intelligence or strength or patience and so, for those who are interested in high-graphics games more wonderful options uses Epic Win quality Sound effects and entertaining mechanism to follow your productivity and do various tasks. (Kappen, Johannsmeier & Nacke, 2013)

Figure 15 Screenshots Epic Win

Source: (http://www.rexbox.co.uk/epicwin/index.html)

Task Hammer:

Another application such as Epic Win, however; it's the android version for it. The users choose a personal role in the game to start doing tasks beside achieve goals, for instance they can also choose from three characters in the game, (Barbarian - Rogue – Sorceress); the user can determine the requirements of each task, such as charisma, strength. There are several additional features of the application users can specify a task as a recurring or part of a routine goal, the choice of Task hammer depends on the fit of features it contains to the users' needs. (Kappen, Johannsmeier & Nacke, 2013)

Figure 16 Task Hammer

Source: (Kappen, Johannsmeier & Nacke, 2013)

Examples of Applications Using the Principle of Gamification in the Fitness:

Wearables:

The wearable fitness tracking devices which offer performance and health monitoring capabilities, have been considered as fast grown industry according to the demands of the users around the world, according to (Spil, et al, 2017), in 2018 this growth reaches to 135 million devices in comparable to 2013 whereas it was 9.7 million devices. As a result of that many companies are investing in the industry, says Steve Holmes, vice president of Intel's new range of devices.

Holmes assured that a good future awaits these technologies and that there will come a day when wearable devices become an essential part of human life by communicating with his body and providing him with information that tablets and smartphones cannot bring, as he said.

The CEO of 3Pillar Global, David DeWolf, linked the success of any wearable device to two things: The first is its ability to capture data, and the second the user accepts the idea of acquiring the device permanently.

An important aspect to develop distinctive wearable devices is to make their designs trendy, since these devices provides much more properties such as biofeedback of the users which could not be found in the laptops and mobile phones, as most people are interested in wearing good-looking devices, according to Motorola Solutions Design and Innovation Director Kurt Crowley. (Spil, et al, 2017)

Dan Ledger the head of a technical consulting firm Endeavor Partners predicted that companies are increasingly interested in creating designs for practical devices, especially with the entry of the world's largest technology companies, such as Google and Apple.

International Data Corporation (IDC) experts predicted that shipments of wearable technology would reach 19 million units globally by the end of this year and exceed 100 million units by 2018.https://www.aljazeera.net/news/scienceandtechnology/2014/12/1-

Fitbit:

Is an American company founded in 2007 by James Park Chief Executive Officer and Eric Friedman Technical Director with 28 million users, the main mission is to inspire and authorize the user to live a healthier and more active life. The products are also designed based on experiences that fit the user's life smoothly so you can achieve whatever goals whether healthy or fitness, in order to achieve that the device gives the users the ability to set weekly and daily basic goals besides obtaining a report of the progress about the steps, distance walked, calories intake and output, and along with the sleeping hours. (Biyani, et al, 2015; Marston & Hall, 2016)

Figure 17 Displays activity detail on certain days of the week

Source: (Marston & Hall, 2016)

MapMyFitness:

This app records over 600 different fitness activities such as daily running, walking, cycling, and hiking within the usage of online database which, gives the users the ability to participate in group of local brand related fitness, competitions, also they can gain prizes for that. This application is syncs them with more than 400 devices to give users a complete picture of their athletic performance. Users can search for nearby running routes or share their favourite routes. The application saves data on the pace, distance, and calories burned for exercises based on the system "GPS" or geo-mapping. (Biyani, et al, 2015)

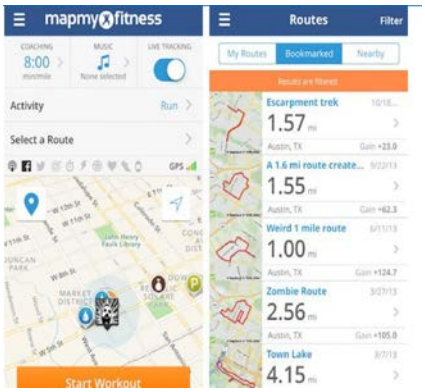

Figure 18 MapMyFitness

Source: (https://blog.myfitnesspal.com/mapmyfitness-syncs-up-with-myfitnesspal/)

Nike Fuel (Nike+ Training Club):

Nike as a sport shoes company also has launched its own applications such as Nike+ Fuelband (wrist worn fitness tracker), Nike+ Sport Watch GPS, Nike+ Sport Band, Nike+ for iPod, Nike+ Running app, Nike+ Basketball app, Nike+ Kinect Training for Xbox), all the previous applications help the consumers to improve their life by featuring workouts designed by professional and famous athletes, the exercises focus on strength, endurance, and movement, for instance Nike+ Running application which is a running app that give the users the ability to share their performance socially besides follow up the achievements as well as a possibility to reach a previous date. The application offers three levels of difficulty, and acoustic signals allow you to focus on exercise instead of the screen, activities can also be manually entered such as basketball, gym training and tennis. (Biyani, et al, 2015; Lu & Ho, 2020; Costin, 2016)

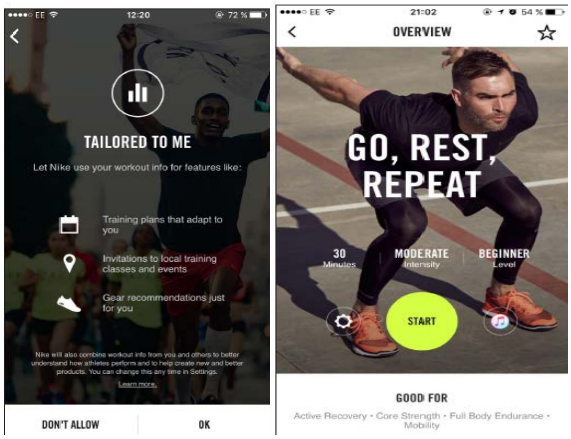

Figure 19 Nike+ Training Club

Source: (Costin, 2016)

11. What Gamification needs to play its Role?

One of the important aspects of gamification to become a successful approach in terms of institutional support, level of participation, and the selection of the right mechanism (Osaimi, 2016).

Institutional Support: Projects that rely on gamification are still new and require financial commitments to build technological platforms for gamification, as well as administrative support after the experiment to move from a simple concept to a sophisticated institutional methodology.

Appropriate Level: Success in gamification when applied depends on the existing methodology, rather than the development of an entirely new activity that users cannot understand.

Mechanism Selection: The diversity of tools available to method designers provides many ways to achieve the objectives of the course, but they are not suitable for all institutional environments.

12. Criteria for Successful Gamification

According to the report Oxford Analytica, the criteria that the state needs to succeed in gamification are: (Oxford Analytica, 2016)

Technology requirements: One of the most important aspects of the learning experience designed in the form of games is the creation of an institutional system fully connected to the Internet according to the latest data, this suggests that the process of application of the games can be more successful in countries that are widespread Internet or those that can spend a lot of money on education.

Educational Requirements: There are a number of educational requirements:

Knowledge: The administrator should be able to select the items most relevant to users' gaming applications and tournaments and be able to consistently apply those elements.

Flexibility: The introduction of game application elements will be met with resistance, especially if the element is not interpreted carefully and accurately specified.

Commitment: A comprehensive professional preparation of educational content designed in the form of games is essential.

13. Challenges to gamification (Osaimi, 2016)

Financial Feasibility: It relies mainly on technology as a platform that enables officials and users to communicate and learn and institutions lacking devices and resources such as computers and high-speed Internet access will not be able to apply gamification.

User Attention: gamification based on gaming applications is a popular

activity, however there are many people who don't play video games, so gaming apps are not innovative training tools for them. In addition, gaming applications may underestimate the success of users in traditional methodologies, and these users may feel reluctant to compare with their video-based counterparts.

Asymmetric Objectives: It is well known that gaming applications are tools, and as such, does not include a specific set of objectives, the principle of gaming applications was commonly used in areas requiring skills with measurable knowledge such as science and mathematics. On the other hand, it is difficult to apply the principle of gaming applications to written articles or in organization departments that don’t use mental skills.

Inappropriately Applied Gaming Applications: The gaming application may be disrupted, or gain a negative reputation in the corporate system if it is associated with failed attempts in which gaming applications are presented without the elements necessary for its success.

III. RESEARCH MODEL DEVELOPMENT AND HYPOTHESES FORMULATION

A. Conceptual Model and Hypothesis

This research model was developed based on the previous studies reviewed in Figure 3.1. Where these factors were adopted based on their frequency in most previous studies, also the model visually describes the framework of variables to be examined Perceived usability, experience, social influence, attitude and intention. The relationship within the variables will be tested in order to measure to which extent they impact on each other.

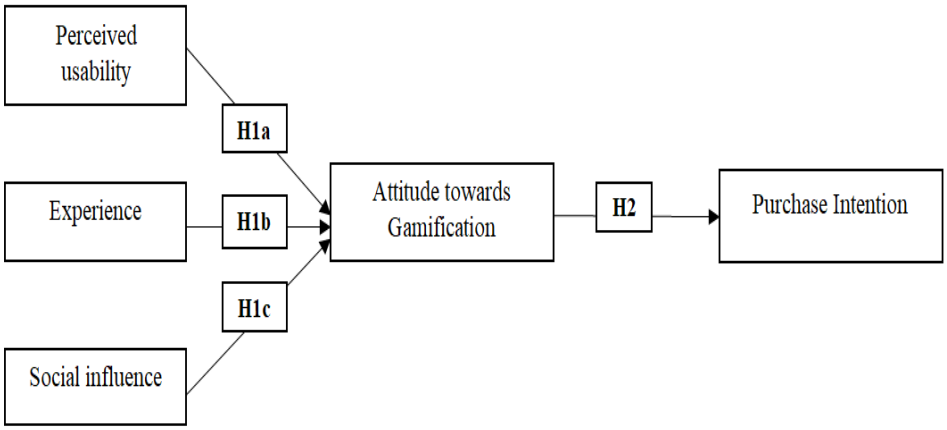

Figure 20 Research Model

B. Perceived Usability and Attitude

According to (Rajanen & Marghescu, 2006) the ISO 9126 define it as one of the main product quality attributes, on the other hand ISO 1307 defines it as magnitude of the product usage by particular user to attend precise goals in a successful, proficiency and fulfilment way within the circumstances of the usage.

In general, users start to have attitude to consume any brand or new system depending of its utility function wither its useful and will has its impact in positive

perspective on their performance or not, in comparable way with the rivals in the market. (Evans, Jamal & Foxall, 2009)

In prior studies, the researchers mention that there is a relation between using any gamification tool and the impact on the attitude or behaviour of the user, as in Human Computation Games (HCGs), is has been found that this relation was clear in many of empirical study that motivate the users to participate in many activities to gain more points or to increase their Performance in a way or another that gives them the courage to participate in them more and more with its flexible and easiness usage of them, that leads to increase the positive utility -oriented behaviour which has an impact at on the intention of the user to use gamified systems. (Wang, et al, 2017)

This perspective was clear in many other studies (Goh, et al, 2011), in (HCGs) in this system it must have two players who paired together to one will get tags while the other will get nothing when one of the present an image in limited time period, which was already have been modified from pilot testing.

The perceived usefulness in (HCGs) could be achieved in two main terms according to (Goh, et al, 2011), how effective does the gamified system support the human computation? beside how effective does it please and bring the joy to the user? If those conditions have been achieved as a result this means that the user accept and convinced with the gamified system thereby the usage will be sustained.

With reference to (Rajanen & Marghescu, 2006), a study held in public and open university in Finland, refer to the usability as playability term which means the ease or the quality of the gameplay, in this study it could be seen that usability of the game plays an important role in changing the attitude towards a gamified system that will contribute in decision making wither to continue or get that gamed like system.

Another study in a Malaysian hospital in 2005 it examined the relation between using an electronic medical record system with the acceptance and usefulness from the medical stuff in it, it has been found that there is an impact of usability and the quality of the information with the attitude toward the system. (Al Haderi, 2014)

In a university of technology Rzeszow in Poland a study has been conducted to study the impact of gamification on the student behaviour, it was clear that

gamified system has incontrovertible influence on their behaviour. (Zatwarnicka-Madura, 2015)

On the other hand, back to (Davis, 1989) an empirical study was conducted on users within (IBN Canada's Toronto development) after answering questionnaire about rating the usefulness and ease of use in two systems PROFS electronic mail and XEDIT file editor, it had been found that the perceived usefulness has no impact on the attitude which mediate the relation to elevate the intention or not.

As well as, in Hedonic Motivation System Adoption Model (HMSAM), which is a model constructed to determine the acceptance of the users, one of the factors that helps to measure it is the perceived usefulness, a survey were distributed to evaluate it, it could been seen that the perceived usefulness got the least outcome because the participant saw that the online judge system which is responsible for solving the difficult problem is also has some difficulty in its usage, so this gamified system it will motivate them to use it, however not helping them to solve the problem which mean that it doesn't have any impact on their attitude in the further future that will lead to the loss of the gamified system. (Cynthia, Rusli & Winarno, 2018)

H1a: There is a relation between perceived usability and attitude

C. Experience and Attitude

In most of the human-computer interaction research the main field to conduct any research in is the experience that the user of the system will have and its impact on their behaviour during the period of time using it (Wiebe, et al, 2014).

Some studies show that online markets have some struggles in conducting a good experience features to the users specially the consumers who are looking for varieties in shopping, for instance most of the users cannot examine the texture or the quality of the product beside the sensorial experience in the online marketing in particular the fashion sector, as a result of that, the gamified system or gamification concept was the trend approach to overcome this problem and win the challenge to give the users the experience in the online similar to the offline aspect. (Insley & Nunan, 2014)

Depending on the type of the gamified system wither it is physical activity or

task-oriented one, the most important thing is the experience that will has its impact on the user's engagement behaviour or attitude and its further effect on their future intention. (Wiebe, et al, 2014)

In order to let the users, examine better experience some studies tend to evoke their intrinsic motivations as a result the number of users will increase to continue conducting the experience for its own purpose. (Wang, et al, 2017)

When the users have an enjoyment experience using the gamified system, it brings a strong reliance that the users have a more and more positive effects towards the gamified system. (Wang, et al, 2017)

According to a study was conducted on kpoprally as gamified system it has been showed that most or all the users prefer it as gamified system, after they feel engaged to the experience of utilizing it, furthermore that leads to affecting their attitude eventually that leads to elevate their intention to continue using or recommend it to others. (Wang, et al, 2017)

Moreover, a good experience could be reached by including more fun element such as kind of competence between the users, which will have definite impact on the user's behaviour by improving their social connection. (Goh, et al, 2011)

Additionally, is has been seen that the experience has strong impact on the attitude in accordance to the (Akpinar, et al, 2009), in a study was conducted on student to examine the academic achievement with the respect to the science and technology, it indicates that the good experience in teaching the science will affect positively on the future attitude towards it. However, the bad or unsuccessful experience will have the opposite effect.

More and more studies came to confirm the relation between the experience and the attitude towards the gamified system by examining the pre- and post-implementation of the system with taking other factors into account such as ease of use beside the usefulness of the gamified system. (Al Haderi, 2014)

In accordance to some literature, time duration of using the gamified system has no impact on the experience. (Rajanen & Marghescu, 2006)

Among the users who have used or had experience in any gamified system, the most difficult thing is how to manage to get the user in an engagement experience that leads to changes in their attitude at end, so as a result of that the enterprises who are responsible for those systems must keep on development of the system in more attractive way to the users regarding their variation in the lifestyles and psychological knowledge (Zatwarnicka-Madura, 2015). Even the experience will differ from user to the other, depending on their competency and achievement spirit. (Wang, et al, 2017)

Since the experience couldn't be expressed verbally, many professional experts mention that observing in the changing of the users' attitude is the key element to evaluate the experience for example the service quality model was contracted to measure the effectiveness of the gamified system (Morschheuser, et al, 2017). As shown in Figure 3.2, explains the user experience at various levels and divers' dimensions of the gamified system. (Ghotbabadi, Baharun & Feiz, 2012)

H_{1b}: There is a relation between experience and attitude.

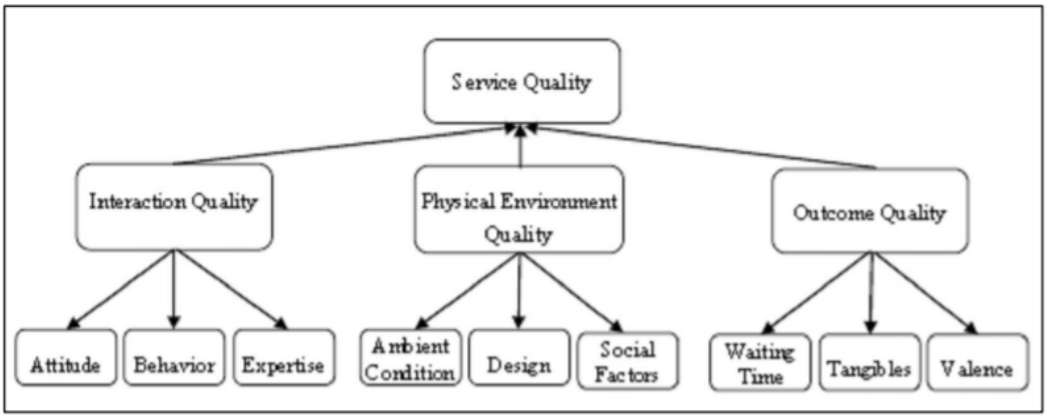

Figure 21 The Hierarchical model by Brady & Cronin (2001)

D. Social Influence and Attitude

With the availability of the Internet around the world beside different sites and platforms of the social media wither its Blogs, Instagram, Facebook, twitter, LinkedIn, and more, that designed and targeted to specific group with their different aspects, perspective, background, educational level and their ages, plays an important role in the peoples' life because of the interactions between the users, and

increase the communication between them, that as result affected their attitudes clearly towards different areas in the life. (Ngai, Spencer & Karen. 2105; Yuksel & Durmaz, 2016)

One of the studies was conducted on Twitter, as social media platform to evaluate gratification among the users while they use the functions of it. It has been found that it has its own effect on the attitude or the way of thinking of the users. (Ngai, Spencer & Karen, 2105)

As it well known the social factors, which divided into two sections the social roles that concern with the anticipation of the users in particular situations or parts of their life, and the social norms which concern about the considerable convenient behaviours that society believe them as rules, has its own tremendous effects of the users' attitude. (Hamari & Koivisto, 2015; Cherry & Gans, 2020)

From this point it could be considered that it is a gate for the gamification to improve in a way or another to affect the attitude. Since the gamification has the feature of social interaction or communication. (Hamari & Koivisto, 2015)

Hence, with the addition those features to the gamified system it will guarantee the social interactions between the user as consequence of that it will affect their attitude in hedonic characterization which means affecting the behavior or attitude in positive manner and decrease the negative side. (Hamari & Koivisto, 2015; Kaczmarek, 2017)

According to some studies to increase the creativity and collaboration of the employees, the Enterprise Social Networks (ESN) developed software such as Yammer IBM Connections, Jive, Slack, Chatter, Socialcast or Tibbr, as gamified system to influence them with the fact that it doesn't have the rewards could be achieved. (Nivedhitha & Manzoor, 2019; Meske, Junglas & Stieglitz, 2019)

However, this gamified system has its own drawbacks with the introvert employees who aren't social with others, beside the others with who don't have the fully knowledge of this system, for instance those kinds of employees should introduced to the system before they get engaged to it. (Nivedhitha & Manzoor, 2019)

With all the benefit that the gamification systems provide to the users with

increasing the interactions and communication collaboration also it works more and attract more users by providing more friends or possible suggested ones, as a result the size of the community with various choices and information will increase for instance that will increase the users' engagement to the network in general that will give the purpose of the gamified system, which is the positive attitude toward this interaction. (Yuksel & Durmaz, 2016)

In another aspect, using the gamified system in Social Learning Environment (SLE) also called Web 2.0, which is platform the allow the student to be more social and attaint their purpose of the learning and improving themselves by proving various tool and application without providing the main framework to the teachers so they can get more help. (Simoes, et al, 2014)

With this exposure to the student as Social Learning Environment that let them acknowledge the beneficial of co-working in collaborative manner beside elevating the social recognition that had its effect on their academic achievement. (Simoes, et al, 2014)

The e-learning according to some studies has its own effect on the users and here as students or participant in the gamified systems by increase their performance, compared to the traditional non e-learning gamified system. However, in the last one it had been shown that it does it effect on the knowledge that was achieved from it. (De-Marcos, et al, 2014)

After what it had already discussed before it could be said that distinctly possible that the social influence give the consideration to the users' insight on how does the gamified system has its impact on the users' attitude. (Hamari & Koivisto, 2015)

H_{1c}: There is a relation between social influence and attitude.

E. Attitude and Intention

As well known that the attitude is the effect on the users either emotionally or physically that give the assessment of the system used in positive or negative circumstances. If the attitude was in positive manner, it will lead to recommend continue using or purchasing that give a fully or semi-fully satisfaction of the users

towards the gamified system. (Evans, Jamal & Foxall, 2009; Wang, et al, 2017)

In many studies refers that the attitude has its effect on the intention either to recommend the usage of the service or the gamified system, or elevate the intention to purchase it. (Wang, et al, 2017)

With spreading the idea of gamification in more than one sector when it was just limited to the marketing sector, some studies approved that the positive attitude towards any systems or services plays an important role in increasing the purchasing or continue using intention among the users. (Yuksel & Durmaz, 2016)

According to previous studies that has been applied on gamified services with its connection with social influence it was obviously many factors have their impact on the intention such as acceptance, enjoyment and the benefits that gained from the gamified services with the respect to their positives on the users by changing their attitude since the beginning of using them. (Hamari & Koivisto, 2015)

On the other hand, some studies shown that usefulness of the gamified system hadn't had any impact on the future intention towards the gamified systems it also have weak impact on the attitude in general. (Hamari & Koivisto, 2015)

In contrast, the easiness of using the system it has been shown that it has more impact on the future intentions, as a consequence of its positive impact on the attitude, which means that whenever the users feel that they can use the system in easy way in more comfortable and easier to understand manner. (Hamari & Koivisto, 2015)

Moreover, other studies shows that the enjoyment while using the gamified system motivate the user toward to change their attitude to have more joy during using as a result it will impact on their future towards the gamified system (Hamari & Koivisto, 2015), it doesn't show a direct influence on the intention as previous mentioned it also overstep the usefulness and ease of use in this with its impact (Mantymaki & Riemer, 2014). However In some literatures had been said that the enjoyment is the ultimate factor that has its direct influence on the intention by play role on the acceptance of the users towards the using the gamified system or services as a tool to perform a specific task. (Kuan-Yu & Lu, 2011; Mantymaki & Jari, 2011)

Another study was conduct on using to evaluate the students' intention to use

the gamified system in comparable with non-gamified system it has been conducted on the gamified Live – Interest –Meter (LIM), it was developed to track down the students' performance, and increase their learning skills, in this experiment it had been shown that as long as the students' have fun or pleasure during the usage of gamified system which lead the users to continue using the system as a result it has direct effect on the intention to continue using the system. (Simoes, et al, 2014; Meske, Junglas & Stieglitz, 2019)

Some other studies refer to that after having good experience that will lead to engage the users more after using the gamified system, which is in general will have its impact on the attitude in positive manner for sure as consequence of that in will have its role on intention of the users towards the gamified system either to continue using it or purchasing it in the future. (Landers & Armstrong, 2017; Cebulski, 2017)

All in all, to reach that point, which lead the users either continue using, purchasing, or recommending the gamified system must has its positive attitude on the users, with the users experience and increase the engagement to the system by influencing the intrinsic and extrinsic motivations without forgetting the increase in interactions and communications skills, beside the perceived usability, easiness of usage, and enjoyment during the usage of the gamified system all those factors plays an important role on the future intention.

H_2: There is a relation between attitude and intention.

IV. RESEARCH METHODOLGY

In this part we will discuss research design, procedure, population and sample size of the study, and besides clarifying data collection methods and procedures and techniques of data analysis. This part of the study demonstrates more details about the research design or research layout purposed and the method that applied to attain the desired data for responding the research questions of the study.

The aim of this chapter is to evaluate and analyze the variables of the study, Perceived Usability (PU), Experience (E), Social Influence (SI), and its effect on Attitude (A) which lead to study the Purchase or Recommend Intention (PRI) of the gamified systems or services.

In this chapter detailed information will be conducted about methods and procedures had been used in this study, beside a research design, population, sampling procedures, data collecting instrument and statistical techniques used.

A. Research Design

Relying on scientific methods while preparing this research, to study the relation between the variables, by examining the influence of (PU), (E), (SI), (PRI) with (A) as mediating variable.

As so to attain the research objectives an analytical and quantitative research method has been applied, and in order to finish the research an online questionnaire had been designed in accordance to obtain a numerical data, such data were obtained from the respondents in Turkey whom they have knowledge about the gamification systems or services.

Designing an online survey had the respondents to feel more comfortable to answer the question with keeping their identity unknown, also with the low cost or even without cost at all and preserve more time (Ilieva, Baron & Healey, 2002).

In order to have experiential comprehension from the respondents in this research an online survey was submitted, also to examine the hypothesis of this research wither to support or un-support the them.

In this research there are three independent variables Perceived usability, Experience, and Social Influence, one mediate variable attitude and dependent Purchase or Recommend Intention.

In this research as shown above it have independent, mediator and dependent variables, in order to measure their compatibility and relevance to each other Structural Equation Model (SEM) technique was conducted as an analysis method. After analyzing the data a conclusion had been framed and composed.

B. Study Population and Sample Size

In this study as mentioned above the main object is to study the effect of the social influence, experience and perceived usability on customer attitude that will affect their future intention usage or recommendation, as a result of that the targeted population of this study was the people in Turkey specifically who had experienced the usage of the gamified systems or services which affected their attitude and their intention.

The sample size of this study was 300 forms was distributed as an online questionnaire in Istanbul, the method of choosing this sample was convincing sampling, for instance the respondents was from the participant who are using or have experienced the gamified system or services.

Choosing this number of the sample size is fair enough to use the (SEM) as an analysis technique, according to some studies and researcher the sample should be from 200-500 to use this technique. (Civelek, 2018)

C. Convenient Sampling

Convenient sampling or could also be named as non-probability It’s a kind of sampling technique that’s popular among the researcher, this technique gives the researcher the opportunity to distribute the survey without any constrains on the participants, beside the data that has been collected during using this techniques

allow the researcher to have better understanding and judging of the participants point of view towards the study objectives without any probability techniques used, for instance the time consuming and the cost that provide by this technique is very low, beside the availability easiness to conduct sampling in convenient way to the researcher without suffering. (Bhat ,2020; Smith & Albaum, 2012; Stephanie, 2015)

D. Research Instruments and Procedure

In this study the instrument that was used is the online Google questionnaire form, which was fill after requesting from the participants to answer the question in accordance to the objectives of the study, this study considered as quantitative research, for instance the 5 point Likert scale is used which rate the answer from 1 to 5 depending the completely disagreement and completely agreement the toward the question, (1 = Strongly disagree, 2 = Disagree, 3 = not agree nor disagree, 4 = Agree, 5 = Strongly agree), earlier before answering the question of the study a brief information was given to the participant about the gamification after that a filter question was submitted in order to have the small knowledge whether participant has ever known the gamification concept or has never heard about it, subsequently the participant will be directly to answer the questions, which are divided into two fundamental parts: the demographic part which concerns about the background of the participant (gender, age, educational level, etc.). (Eikelboom, 2016)

The second part was the study question that discusses the main object of the study depending on the variable section, which are adapted from previous studies independent variable perceived usability (Wang, et al, 2017), the experience (Nivedhitha & Manzoor, 2019), social influence (Hamari & Koivisto, 2015), and attitude and intention. (Yuksel & Durmaz, 2016)

The survey had been translated into two languages in English version and Turkish version, which were gotten with the help of native speakers to avoid any mistakes in the meaning, which lead to the loss of the main objectives of the study during the translating from one language to the other, for instance the survey was submitted to Istanbul Aydin University ethics committee, and had approved to them, however because the survey was directed to the Turkish participants only the online Turkish version was distributed.

Table 1 Main Survey Items Sources

Utility and Attitude			
Questions	**1.**	Overall, I am satisfied with how easy it is the use this system	Wang, et al, 2017
	2.	I could effectively complete the tasks and scenarios using this system	
	3.	I was able to efficiently complete the tasks and scenarios using this system	
	4.	I felt comfortable using this system.	
	5.	It was easy to learn to use this system.	
Experience and Attitude			
Questions	**1.**	I felt free and spontaneous. Participation	Niedhitha & Manzoor, 2019
	2.	I discovered something new about myself	
	3.	The experience stands out in my mind as it is emotionally intense	
	4.	The experience causes me to feel differently about myself	
	5.	The experience is beyond usual intensity of emotions	
	6.	The experience makes me to reflect on who I am	
	7.	My confidence raised like never before during my participation	
Social İnfluence and Attitude			
Questions	**1.**	People who influence my attitudes would recommend gamification tools	
	2.	People who are important to me would think positively of me using gamification tools.	
	3.	people who I appreciate would encourage me to gamification tools	
	4.	My friends would think using gamification tools is a good idea.	
Attitude Towards Gamification			
Questions	**1.**	All things considered; I find using these activities to be a wise thing to do	Yuksel & Durmaz, 2016
	2.	All things considered; I find using these activities to be a good idea	
	3.	All things considered; I find using these activities to be a positive thing.	
	4.	All things considered; I find using these activities to be favorable	
Intention of using or purchasing			
Questions	**1.**	If I were going to buy this product, or use the services I would consider the activity regarding this product.	
	2.	If I am in need, I would buy this (product), Or use the services	
	3.	Likelihood of purchasing this product or using services is high. .	
	4.	It is possible that I would buy this product	

1. Statistical Techniques

In this study two statistical techniques had been used the (SEM), Confirmatory Factor Analysis (CFA), Exploratory Factor Analysis (EFA) Path Analysis and Mediation Analysis. (Schumacker & Lomax, 2010; Civelek, 2018; Byrne, 2010; Byrne, 2016)

Structural Equation Model (SEM): Is a type of statistical techniques analysis that became the most popular techniques among the researchers to measures the relation between the multivariate latent as continues variable and observed whither it's discrete or continues variables quantitatively, in accordance to hypothesis model constructed by the researcher, besides estimation of the study model. (Su, 2015)

Confirmatory Factor Model: Which contains two parts (Civelek, 2018): Confirmatory Factor Analysis, Exploratory Factor Analysis

Confirmatory Factor Analysis (CFA): This analysis has been known with its inter locked relation with the SEM, CFA analysis is responsible for the validity and the reliability between the independent or dependent variables as quantitative analysis even though they have this strong connected relation the (CFA) analysis could have done alone without the existence of the (SEM) (Anderson & Gerbing, 1988; Schumacker & Lomax, 2010; Byrne, 2010; Byrne, 2016).

Also, with the prejudgment on the data according to previous studies, it could be known the lading of factors on the observed variable in confirmatory manner.

Exploratory Factor Analysis (EFA): In this analysis the correlation between the studies factors is measured (Schumacker & Lomax, 2010), beside it could be seen here that the observed variable could be laden in one or more than factor. (Civelek, 2018)

Path analysis and Mediation analysis: This analysis is considered as particular form of (SEM), in here the relation between the independent and dependent variables with the attitude as a mediator was examined directly and indirectly to seek out to how far the model which was constructed by the researcher was reasonable or not, mediation model which is measured by the mediation analysis to construct the relation between them. (Jenatabadi, 2012; Pedhazur, 1982)

Independent variable ⟶ *Mediator variable* ⟶ *Dependent variable*

In order to apply the (SEM) in this study Statistical Package for Social Sciences (IBM SPSS) as primary data collecting and analysis way then to furthermore use the (SEM) the Analysis of Moment Structures (AMOS) software programs was used to achieve the objective of the study by indicating the estimated values on graphs, the Cronbach's alpha value was measured to estimate the reliability of the questionnaire instrument by (IBM SPSS) software.

V. ANALYSIS AND DISCUSSION

Within this chapter the outcomes which have obtained from the data collecting of this research is discussed. To attain that the IBM SPSS 23.0 (Statistical Package for the Social Sciences) program for analysis has been used to the primary data collected, it explained as demographic characteristics, descriptive statistics of the frequency and reliability and validity test of the questionnaire. Afterwards, multiple regression analysis beside the hypotheses testing has been conducted by AMOS software.A. Awareness of the Gamification Tools

At the beginning of the questionnaire a filter question had been asked to the respondents to have a brief idea about the awareness towards the gamification concept in general beside gamification tools specifically.

Do you have any idea about gamification? (Gamification Means adding game mechanics and game interactions to the real world. For example: (Fitbit, Apple smart watch health application, Kahoot, Duolingo, Nike training club).

Table 2 Aware of Gamification Tool

Variables	Frequency	Per cent	Cumulative Percentage
Yes	282	94.0	94.0
No	18	6.0	100.0

From the above table (5.1) the responses show that 94% of the Turkish consumers have the awareness towards gamification tools, which give a positive aspect that in force a positive attitude and an increase in intention towards it.

A. Demographic Profile of Respondents

Table 3 Demographic Respondents

Demographics Profile	Variables	Frequency	Percent	Cumulative Percent
Gender	Female	138	50.7	50.7
	Male	134	49.3	100.0
Age	18 age and under	30	11.0	11.0
	19-25	39	14.3	25.4
	26-34	86	31.6	57.0
	35- 44	93	34.2	91.2
	45 age and more	24	8.8	100.0
Marital	Single	80	29.4	29.4
Status	Married	192	70.6	100
Education	Primary Education	38	14	14
	High School	38	14	27.9
	Associate Degree	98	36	64
	License	76	27.9	91.9
	Graduate	22	8.1	100
Occupation	Student	35	12.9	12.9
	Public Employee	35	12.9	25.7
	Private Sector Employee	88	32.4	58.1
	Self-employed	71	26.1	84.2
	Retired	19	7.0	91.2
	Unemployed	24	8.8	100.0
Household income	2.020TLand under	31	11.4	11.4
	2.021-3.500 TL	73	26.8	38.2
	3.501TL-5.000 TL	100	36.8	75.0
	5.001TL-7.000 TL	35	12.9	87.9
	7.001TL and more	33	12.1	100.0

After collecting the data which was about 300 respondents and the data screening either was the respondents has no idea about the gamification or a wrong in filling of data by standard deviation only 272 left.

Within this data and according to the demographic profile shows that most of the respondents were Female with 138 that represents 50.7% about (51%) of the total collected data, however the Male respondents were 134 that represents 49.3% about (49%) from the total collected data.

As for the age were the respondents grouped into the ages range from 18 age and under, 19-25, 26-34, 35- 44 and 45 age and more, the data has pointed out that the majority of the respondents were from the age range (35- 44) with total respondents 93 that represents about (34.2%) from the total collected data, the second most respondents were from the age range (26-34) with total respondents 86 that represents about (31.6%) from the total collected data, followed by 39 respondents from the age range (19-25) with about (14.3%), then 30 respondents that represents about (11%) from the younger age which represents the teenagers.

However, the older age that represents the age range 45 and more years old had the least percentage from the previous age categories with 24 respondents that represents about (8.8%) from the total collected data.

The study indicated according to the marital status that most of the respondents were married with 192 which, represents (70.6% about 71%) of the total collected data, on the other hand the single category has 80 responses which, represents (29.4%) of the total collected surveys.

In accordance to education level the data indicates most of the privet sector employees has an idea or the used the gamification tool with total respondents 88 which, represents about (32.4%) from the total collected surveys, followed by 71 respondents from the self-employed that represents about (26.1%).

Then with the same amount of collected data from the students and public employee 35 in respective in each of them with (12.9%) from the total collected data, the unemployed respondents had 24 with (8.8%) from the total collected data, and finally the retired respondents had the least amount of the collected surveys 19 which, represents about (7%) from the total collected data.

In connection with the household income the collected surveys showed that the majority of the respondents were within the range form 3.501TL-5000TL with 100 which represent (36.8% about 37%) of the total collected data, followed by 2.021-3500TL with 73 collected survey which represents (26.8% about 27%) of the total collected data,

However; the 5.001TL -7000TL, 7000TL and more have approximate household income with 35, 33 respectively with a percentage (12.9% about13%) and (12.1%) separately, finally the least income respondents were from the 2.020TL and under with 31 which, represents (11.4%) from the total collected data.

B. Variable Coding

The following coding and abbreviation terminologies were used in the data collecting process for the purpose of applying SEM analysis effectively and efficiently.

Table 4 Variable Coding Conventions Used in the Analysis

Variable	Label	Value
Utility and Attitude	Strongly Disagree	1
Symbol: YT	Disagree	2
Total Items (5)	Nor Agree Neither Disagree	3
	Agree	4
	Strongly Agree	5
Experience and	Strongly Disagree	1
Attitude	Disagree	2
Symbol: DT	Nor Agree Neither Disagree	3
Total Items (7)	Agree	4
	Strongly Agree	5
Social influence and	Strongly Disagree	1
Attitude	Disagree	2
Symbol: SET	Nor Agree Neither Disagree	3
Total Items (4)	Agree	4
	Strongly Agree	5

Table 4 (con) Variable Coding Conventions Used in the Analysis

Variable	Label	Value
Attitude Towards Gamification Symbol: OYT Total Items (4)	Strongly Disagree	1
	Disagree	2
	Nor Agree Neither Disagree	3
	Agree	4
	Strongly Agree	5
Intention of Using or Purchasing Symbol: KSAN Total Items (3)	Strongly Disagree	1
	Disagree	2
	Nor Agree Neither Disagree	3
	Agree	4
	Strongly Agree	5

C. Descriptive statistics of variables:

The statistic's description of dependent and independent variables includes maximum beside the minimum values, mean, standard deviation, skewness and kurtosis. These values have been calculated in order to distinguish the main characteristics of the obtained data in quantitative terms. All values of the survey have been built on a 5-point Likert scale as mentioned before (1 = strongly agree to 5 = strongly disagree). Within the following tables (5.4 and 5.5) the value of dependent and independent have been explained in detail correspondingly.

Table 5 Descriptive Statistics of Independent Variables

Utility							
Variable	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
YT1	272	1	5	3.67	1.114	-.873	.026
YT2	272	1	5	3.65	1.116	-.858	.043
YT3	272	1	5	3.67	1.127	-.817	-.021
YT4	272	1	5	3.53	1.136	-.820	-.001
YT5	272	1	5	3.60	.932	-.763	.147
Experience							
DT1	272	1	5	3.29	1.146	-.410	-.713
DT2	272	1	5	3.26	1.209	-.430	-.811
DT3	272	1	5	3.63	1.047	-.772	.206

Table 5 (con) Descriptive Statistics of Independent Variables

Utility							
Variable	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
DT4	272	1	5	3.67	1.055	-.623	-.018
DT5	272	1	5	3.75	1.079	-.706	-.083
DT6	272	1	5	3.82	1.011	-.921	.415
DT7	272	1	5	3.73	.928	-.753	.450
Social influence							
SET1.	272	1	5	3.51	1.239	-.597	-.663
SET2	272	1	5	3.54	1.116	-.457	-.644
SET3	272	1	5	3.63	1.008	-.693	.108
SET4	272	1	5	3.76	.882	-1.048	1.505

According to the obtained above data, it could be seen that the mean between the different variables ranges between 3.82 to 3.26 the higher beside lower values are within the Experience and specifically in DT6 and DT2 respectively. On the other hand, the Std. Deviation value ranges from .882 to 1.239 and also, they are within the same variable the Social influence particularly in SET4 and SET1 sequentially. For instance, the Skewness value which is an indicator factor of the symmetry, ranges from -.410 to -1.048 as could be seen that the sign of the values is in negative which means according to Pallant, that means the clustering of the data is lay on the right hand of the graph, as demonstrated the Kurtosis value which is a peakedness an indicator factor, it's ranges from -.001 to 1.505 at this point and also as Pallant mentioned that the positive the values mean that the distribution is more centred however, the negative value means that the distribution is more in extreme flatten of the data, all in all the distribution of the data considered to be normal distribution. (Pallant,2007)

Table 6 Descriptive Statistics of Dependent Variables

Attitude							
Variable	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
OYT1	272	1	5	3.71	.812	-.790	1.017
OYT2	272	1	5	3.86	.942	-.863	.645
OYT3	272	1	5	3.76	.920	-.796	.724
OYT4	272	1	5	3.75	1.078	-.841	.294
Intention of Using or Purchasing							
KSAN1	272	1	5	3.90	.971	-1.050	.893
KSAN2	272	1	5	3.89	.905	-.962	.860
KSAN3	272	1	5	3.96	.964	-1.198	1.393

From the above values of the descriptive statistics of dependent variables the Attitude and the Intention of Using or Purchasing, it could be seen that the mean values ranges from the 3.71 to 3.96 the lower as well as the higher are from the Attitude and the Intention of Using or Purchasing from the OYT1 and KSAN3 respectively. For instance, the Std. Deviation ranges from .812 to 1.078 the higher and the lower values are within the same variable in different question. As mentioned before by Pallant the Skewness values ranges between -.790 to -1.198 the negative sign indicates that the data are on the right hand of the graph, on the other hand, the Kurtosis values are positive and ranges from .294 to 1.393 which means that the distribution of the data are clustered in the centre and extended narrow tail. (Pallant,2007)

D. Exploratory Factor Analysis (EFA)

In this analysis, the researcher is not assuming or have and expectation about a specific factor structure. This analysis does not aim to verify or verify the validity of the presumed model or even affected by any expectation that presumed by the researcher it would rather seeks to discover the factor (the number of factors or their nature or type that loaded on each factor) after conducting the analysis (Tigza, 2012; Thompson, 2010).

In accordance to Taherdoost, Sahibuddin and Jalaliyoon, 2020; Suhr the EFA,

is particularly proper for scale construction and employed when there is a limited theoretical foundation for defining a priori the number and models of basic factors (latent factors). (Taherdoost, Sahibuddin & Jalaliyoon, 2020; Suhr, 2006)

The analysis is significantly helpful for managerial or scholastic study in diminishing items (examine the inter-correlations) into discrete dimensions that can be aggregated and consequently accepted as data for further multivariate analysis such as multiple regression (Hooper, 2012). As referred from the name the EFA aids to define the construction that exists (Fatih, 2018). In order to attain and conduct the EFA analysis these steps has been followed: (Williams & Brown, 2010)

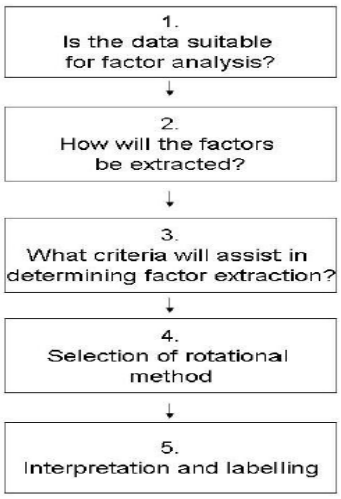

Figure 22 Exploratory Factor Analysis Implementation Steps

Source: (Williams & Brown, 2010)

In order to attain the suitability of the data to conduct the EFA analysis two tests should be done Kaiser-Meyer-Olkin (KMO) statistic test and Bartlett test of Sphericity.

Kaiser-Meyer-Olkin (KMO): this test has been conducted in order to verify the adequacy of the data to the EFA analysis if the data is within the range 0and 1.

Zero or values smaller than it indicate that the sum of squares is the correlation coefficients between the variables smaller in relation to the sum of the squares of the partial correlation coefficients according to these values the exploratory factor analysis is not appropriate.

However; if you approach 1 this indicates the existence of a factor or factors

that meet the variance of the measured variables and this indicates the possibility of applying exploratory analysis (Tigza, 2012).

As Kaiser in 1974, suggests that the index is accepted with values not less than 0.5 Values from (0.5 - 0.7) indicate the appropriateness of the inspection, while the values (0.7-0.8) indicate a good level.

As for the values (0.8 - 0.9), indicating an outstanding level, and values above 0.9 indicating the level of merit of appreciation and the high and effective ability to perform the EFA analysis. According to the table (4.5) which shows that KMO value equals .93 that mean the adequacy of EFA is very high (Kaiser, 1974).

Bartlett Test of Sphericity: is the test for the null hypothesis, basically it checks to see whether there is a certain repetition between the variables that could be reviewed with a few numbers of factors. A significant test symbolizes important correlations between the items this test should be significant (less than .05) (Tigza, 2012; Arifin, 2018) as shown from the table (4.5) value of Bartlett Test of Sphericity is equals to 3196.261 ($p < 0.000$, $df = 153$).

Table 7 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	3196.261
	df	153
	Sig.	.000

Communalities: the extraction method that has been used is principle axis factoring, in this extraction method the value of the communalities must be less than one, the may be equal to 0.60, 0.7 or 0.80. Or any value less than 1(Tigza, 2012), the table below shows that the Communalities values less than 1.

Table 8 Communalities

Communalities		
	Initial	**Extraction**
YT1	.739	.776
YT2	.672	.730
YT3	.601	.658
YT4	.636	.692
YT5	.536	.573
DT3	.591	.604
DT4	.623	.678
DT5	.633	.673
DT6	.731	.800
DT7	.680	.734
SET3	.439	.731
SET4	.526	.578
OYT1	.439	.484
OYT2	.537	.686
OYT3	.493	.558
KSAN1	.562	.623
KSAN2	.635	.721
KSAN3	.688	.788

Factor loadings: The items that less than 0.3 beside the cross-loaded items had been excluded from the analysis (Arifin, 2018), DT1, DT2, SET1, SET2 and OYT4 were excluded in according to the following.

Value	Interpretation
0.3 to 0.4	Minimally acceptable
$\geq$ 0.5	Practically significant
$\geq$ 0.7	Well-defined structure

Figure 23 Factor loading interpretation

Table 9 Pattern and Structure Matrix

Pattern Matrix[a]					
	Components				
	1	2	3	4	5
YT1		.771			
YT2		.861			
YT3		.851			
YT4		.818			
YT5		.764			
DT3	.610				
DT4	.863				
DT5	.738				
DT6	.912				
DT7	.910				
SET3					.931
SET4					.454
OYT1			.685		
OYT2			.900		
OYT3			.707		
KSAN1				.762	
KSAN2				.838	
KSAN3				.849	

E. Confirmatory Factor Analysis (CFA)

This type of analysis is one and very important element of structural equation modelling or some-times covariance structure analysis, unlike the EFA, this analysis is give the researcher the ability to put an expectation based on previous studies theory in regards to number of elements (factors) or best models fit, the performance of this analysis should be done in new data set, and test the validity of the model obtained from EFA with usage of the scale adjustment is different (Fatih, 2018; Williams & Brown, 2010) . The CFA analysis is performed after testing the relationship between the observed variables with their respective latent forms that

already exists, with the basis of previously strong theory about the model (Fatih, 2018; Suhr, 2006).

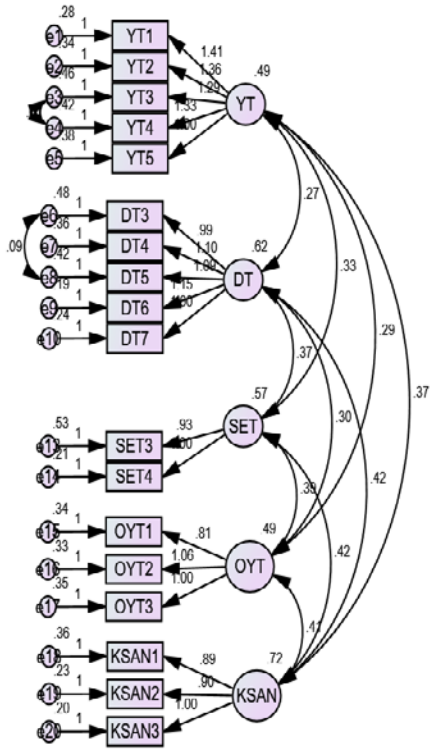

Figure 24 Hypotheses CFA Model

For the purpose to attain the CFA model AMOS software has been used, as shown from the above model there is a total 18 observed items of five factors, the Utility and the Experience measured with 5 elements for each, while the Social Influence was measured with only 2 elements, finally the Attitude and the Intention to use or buy were measure with 3 items for each respectively. In order to perform the CFA, the factor needs minimal 2 elements (items). (Hooper, 2012) In order to perform the CFA number of statistical tests should be applied to examine the adequacy of the model fit to the current experimented data. (Suhr, 2006)

CMIN/DF (Chi-Square Mean / Degree of Freedom): the chi-square is known as conventional way of measuring the model fit, ‘assesses the magnitude of discrepancy between the sample and fitted covariance’s matrices. (Williams & Brown, 2010)

However, the chi-square is known of its sensitivity towards the size of the

sample which means in large sample size the chi-square is almost always rejected; on the contrary the small sample size also has absence or lacking in fitting.

As result of that by having this formula CMIN/DF this lacking and rejecting of the fitting is minimized, within the range of the CMIN/DF value between 3 and 1 for a good fit of the model, some other researches indicated that range is between 2 and 5 for good model fit. (Hooper, Coughlan & Mullen, 2008; Hu& Bentler, 1999)

The Comparative Fit Index (CFI): This indicator is considered one of the best comparative indicators it ranges from (0 to1) and as long as the value equals to (0.90 and above) the acceptance of the data is to be considered with the higher value the model fit is higher as consequence of that Values above 0.90 are acceptable, and 0.95 indicates great fit. (Suhr, 2006; Tigza, 2012; Yaşlıoğlu & Toplu Yaşlıoğlu, 2020)

Root Mean Square Error of Approximation (RMSEA): It is considered one of the best indicators used in CFA; this indicator takes into account the error of approximation in the sample of the study, besides measuring the divergence by degree of freedom, which makes it sensitive to a number of free parameters that need to estimate the assumed model.

In other words, it is affected by the complexity of the model (Tigza, 2012), it measures the residual of the model is connected with this test, it also ranges from 0 to 1 however, the opposite to the CFI the smaller the value the more acceptance of the examined data is started less than or equals 0.06 which as a result gives higher model fit. (Suhr, 2006)

In other studies, the range of the RMSEA value 0.05 and less means that model is Close Fit, and if the value was between (0.05-0.08) that mean Reasonable Fit of the model (Xia & Yang, 2019) as long as the value of the RMSEA is close to the 0 value the best acceptance fit. (Tigza, 2012)

Root Mean Square Error of Approximation Associated P-value (PCLOSE): this indicator gives the P-value which depends on the null hypothesis that shouldn’t be below 0.05 and the insignificance of the PCLOSE indicates the good fitting of the model. (Byrne, 2016; Yaşlıoğlu & Toplu Yaşlıoğlu, 2020)

In order to examine the goodness of fit of the model several values have been tested, they are shown in table below with their standard fit value in comparison with

the study findings.

Table 10 Goodness of fit Metrics for CFA model

Measure	**Standard fit**	**Results of this Study**	**Remarks**
CMIN/DF	(3 ≥ value ≥ 1)	1.220	Good Fit
CFI	> .95 Good Fit ; > .90 Acceptable Fit	.991	Good fit
RMSEA	< 0.05 Close Fit, (0.05-0.08) Reasonable Fit	.029	Good Fit
PCLOSE	> .05	.994	Great Fit

In accordance to the table 5.7 above which, indicates that CMIN/DF value is within the acceptance and good fit with 1.220 value, besides that the CFI value is much higher the 0.95 which also demonstrates that model is in great fit with a 0.991 value, alongside the RMSEA and PCLOSE values are within the great acceptance of the model fit with 0.29, 0.994 respectively for each one.

On the contrary, the standardized regression weights estimated to determine their significance, as shown from the table 5.8 below all standardized loadings are higher than 0.60 suggesting their statistical significance.

Table 11 Standardized Regression Weighs

			Estimate
YT5	<---	YT	.749
YT4	<---	YT	.820
YT3	<---	YT	.797
YT2	<---	YT	.852
YT1	<---	YT	.881
DT7	<---	DT	.851
DT6	<---	DT	.900
DT5	<---	DT	.796

Table 11 (con) Standardized Regression Weighs

			Estimate
DT4	<---	DT	.820
DT3	<---	DT	.747
SET4	<---	SET	.854
SET3	<---	SET	.693
OYT3	<---	OYT	.764
OYT2	<---	OYT	.793
OYT1	<---	OYT	.699
KSAN3	<---	KSAN	.882
KSAN2	<---	KSAN	.848
KSAN1	<---	KSAN	.783

In order to the to examine and evaluate regression paths that associate the variables the Regression Weights has been conducted, and this estimation has been confirmed using the probability value (P-value).

The significant relationship between the variables would be affirmed if the value is ($P \geq 0.05$). In accordance to (Hair, et al, 2019) the P-value that symbolizes the association between each factor and its latent factor (***refers to $P < 0.001$).

Table 12 Regression Weights

			Estimate	S.E.	C.R.	P	Label
YT5	<---	YT	1.000				
YT4	<---	YT	1.335	.097	13.747	***	
YT3	<---	YT	1.286	.097	13.298	***	
YT2	<---	YT	1.362	.094	14.446	***	
YT1	<---	YT	1.406	.094	14.973	***	
DT7	<---	DT	1.000				
DT6	<---	DT	1.152	.060	19.274	***	
DT5	<---	DT	1.088	.069	15.785	***	
DT4	<---	DT	1.096	.066	16.580	***	
DT3	<---	DT	.991	.069	14.299	***	

Table 12 (con) Regression Weights

			Estimate	S.E.	C.R.	P	Label
SET4	<---	SET	1.000				
SET3	<---	SET	.927	.087	10.613	***	
OYT3	<---	OYT	1.000				
OYT2	<---	OYT	1.064	.088	12.031	***	
OYT1	<---	OYT	.807	.075	10.768	***	
KSAN3	<---	KSAN	1.000				
KSAN2	<---	KSAN	.902	.052	17.341	***	
KSAN1	<---	KSAN	.894	.058	15.446	***	

F. Validity and Reliability

Within any conducted quantitative research which needs a quantitative measurement 3 conceptions should be used Reliability and Validity and generalizability, however within the academic research the Validity and Reliability come in first place as it used in this study: (Muijs, 2004)

Reliability: in the statistical measurement Reliability has a particular meaning which is adverts to the extent to which test outcomes are free of measurement error which are essentially may be found within the elements that meant to be measured. (Muijs, 2004) It has two forms: repeated measurement and internal consistency. In order to measure it Composite reliability the value should be .70 or .80, higher to indicate sufficient internal consistency or convergence which gives the acceptance. (Brunner & SÜ, 2005; Yusoff, 2011)

Validity: is a tool used to estimate or measure the accuracy, correctness of the study the validity must be measured (Hair, et al, 2019). The significant purpose is to achieve the concept of the validity which is refers to into which extent the evidence that the researcher has deducted depending on the data collecting using a distinct tool.

In accordance to the validity is tool used to answer very critical and important question to the study which "Do the results of the assessment provide useful information about the topic or variable being measured?". (Fraenkel, Wallen &

Helen, 2019)

The validation process of the outcomes could be conducted by knowing that the validity has 3 main types of Construct Validity, Content Validity, and criterion validity, each one of them contains subtypes the validation process is done by all the 3 types. (Muijs, 2004) One by one a short brief is given below about each type:

The Criterion Validity this validation is concerns with the theory itself as the content validity do, which means “adverts to the association between outcomes achieved using the tool and outcomes accomplished using one or more other measures or tool". (Fraenkel, Wallen & Helen, 2019), it is interconnected with either the expectation or prediction between the measures or outcomes; it is subdivided into Predictive Validity and Concurrent Validity. (Muijs, 2004)

The Content Validity its defines as “ adverts to either the content of the variables (e.g. items of a test or questions of the questionnaire) is right to measure the latent concept (self-esteem, achievement, attitudes,…) that we are trying to measure or not".it’s also subdivided into Face Validity and Expert Panel Validity. (Muijs, 2004)

Finally The Construct Validity the assessment of the subjected theory measurement is the first and foremost goal of the SEM/CFA and this could only measure by Construct Validity which attended to measurement precision, is defined as " is the extent to which a set of measured elements literary reflects the theoretical latent construct those elements are tended to be measured" (Hair, et al, 2019), and it has 2 subtypes: Convergent Validity and Discriminant Validity. (Hair, et al, 2019)

Convergent Validity which adverse to the correlation of an element of a factor with other elements of that factor (Gefen & Straub, 2005). Discriminant Validity presumed that elements should have higher correlation within each other than correlation with other element from other constructs that are theoretically supposed not to be correlated with. Also the extent to which outcomes of one measure are not correlated with measures of variables that are conceptually separated. (Zait & Bertea, 2011)

There are a handful measures that are helpful for establishing validity and reliability, which are: Composite Reliability (CR), Average Variance Extracted

(AVE) for significant construct in order to measure the Convergent validity, Maximum Shared Variance (MSV) within the standard values Composite Reliability: CR > 0.7, Convergent Validity: AVE ≥ 0.5 and below CR value Discriminant Validity: MSV < AVE. (Thompson, 2010).

Table 13 Validity and Reliability Results

	CR	AVE	MSV	MaxR(H)	DT	YT	KSAN	OYT	SET
DT	0.914	0.680	0.460	0.922	**0.824**				
YT	0.912	0.675	0.399	0.918	0.493	**0.822**			
KSAN	0.876	0.703	0.480	0.884	0.634	0.632	**0.838**		
OYT	0.797	0.567	0.511	0.801	0.547	0.591	0.693	**0.753**	
SET	0.781	0.547	0.511	0.812	0.678	0.576	0.651	0.715	**0.739**

As shown from the above table value of the Composite Reliability CR is exceeding 0.7, while the Average Variance Extracted (AVE) is greater than 0.5, and finally the Maximum Shared Variance (MSV) is lower than AVE, as result from the previous results the model conduct is valid and reliable.

G. Hayes' PROCESS modeling technique:

In order to test the mediation or in other words the indirect effect, between the variables this technique has been used, which is according to Baron & Kenny who were known as the intervene of one or more variables to convey the impact of variable X on variable Y. In fact, the Hayes' process is meant to modulate the impact of variable X on variable Y by affecting the nature, direction and/or strength of this influence, which can differ in compliance with the values of the moderating variable. (Baron & Kenny, 1986 ; Borau ,et al, 2015), on the other hand, according to Edwards& Lambert the significant approaches being made in marketing research now support researchers to propel exceeding the separate analysis of mediating and/or moderating effects and instead to recognize the contemporary mechanisms underlying these effects ('how') and the subject limits of these effects ('when' or 'under what conditions), which explains the reason to increase the usage of the so-

called moderate mediation, mediated moderation to measure the multiple effects (Edwards & Lambert, 2007). While moderated mediation is in attendance when the extent, size or direction of the indirect effect of variable X on variable Y via a mediating variable M varies according to Preacher, Rucker & Hayes with the value of a moderating variable Z (Preacher, Rucker & Hayes, 2007). Beside as Hayes stated that mediation considered as conclusively a causal interpretation, Mediation analysis is a statistical technique employed to assess confirmation from studies designed to test hypotheses about how some causal predecessor variable X carries its effect on a consequent variable Y However, within this study only the mediation effect has been tested. A mediation effect associates with the mechanism through which an independent variable X has an influence on a dependent variable Y via an intermediary variable M positioned between X and Y, for instance this effect could be measured directly which means from X to Y without the mediation effect M, or indirectly which means the effect of X on Y with impact of the mediator or surrogate variable M as a casual progression. (Hayes, 2017)

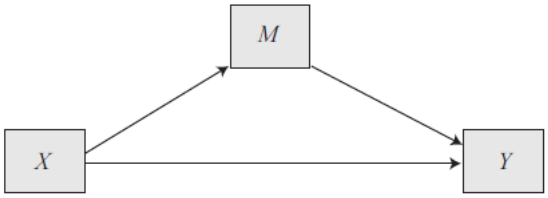

Figure 25 A conceptual diagram of a simple mediation model

According to Various techniques are used to test mediating effects: the causal steps approach developed by Baron and Kenny, the Sobel test and the significance of the indirect effect and the bootstrapping method (Borau, et al, 2015). The simple mediation model is the most fundamental mediation model can consider, and without any suspicion considerably oversimplifies the complex dynamics during which X affects Y, however, according to Hayes mediation analysis as studied presently no longer required confirmation of a simple correlation between X and Y as a prerequisite. (Hayes, 2017)

Within this analysis the total relationship between the independence, mediator and dependent variables is measured either as a direct or indirect effect besides that the Model 4 has been used to estimate this relation.

The bootstrap tests of the indirect effect are located in the final section under the heading "TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y" and then under the subheading "Indirect effect(s) of X on Y:", where Effect presents the average estimate for indirect effect from the bootstrap samples, BootSE provides the standard error estimate, and BootLLCI and BootULCI are 95% confidence limits. If the 95% confidence limits include zero, the indirect effect test is not significant, with PROCESSing model 4 would be appropriate.

Bootstrap Confidence Interval: for instance, in mediation analysis, bootstrapping is used to form an empirically determined description of the sampling pattern of the indirect effect, also it is considered as a sample evaluation method using replicated resampling (random sampling with replacement). Based on an initial sample moreover, here the empirical illustration is applied for the formation of a confidence interval. Bootstrap confidence intervals more immeasurable reverence the variability or irregularity of the sampling distribution, which as a result yield conclusion that are more suitable to be perfect when it is employed to test a hypothesis. It is commonly suggested to provide at least 1,000, if not 5,000 or 10,000 resamples and to opt for the percentile, bias-corrected or accelerated bootstrap procedures. (Borau, et al, 2015)

VI. HYPOTHESİS RESULTS

At this stage, the examination of the hypothesis has been done either the direct effect of the Independents variables (Perceived Usability {YT}, Experience {DT}, Social Influence {SET}) with the mediator (Attitude {OYT}), or the Independents variables (YT, DT, SET) with the dependent variable (Intention of Usage and Purchase {KSAN}) in the mediation with the Attitude (OYT).

Table 14 Hypothesis Result between the Independents Perceived Usability (YT), Attitude (OYT) and Purchase the Gamification tool (KSAN)

	Consequent								**Effects**	
	M (OYT)				**Y (KSAN)**				**Direct**	**Indirect**
		Coeff.	**SE**	**p**		**Coeff**	**. SE**	**p**	**c'=**	**ab=**
X (YT)	a	.5129	.0441	.0000	c'	.7697	.1098	.0000	.7697	.2698
M (OYT)		-	-	-	b	.5261	.1237	.0000		
Constant	i_1	5.2952	.5303	.0000	i_2	3.1058	1.2614	.0144		
	R^2 =.3340				R^2 =.3621					
	F (1, 270.0000) = 135.3968, p = .000				F (2, 269.0000) = 76.3539, p = .000					

**S.E.*= Standard Error, Unstandardized regression coefficients reported. Bootstrap sample size 5000.

According to the values of the above explanation of the PROCESS it could be seen the direct relation between the independent viable (YT) and the dependent variable (KASN), besides the indirect relation between the (YT) and (KSAN) with the mediation of the (OYT) all the relations show significance of the P-value *** which is less than the standard value of 0.05 in both sides of the table.

From the left side of the table, it could be seen that the regression value of the X variable as (perceived usability) equals to *a* = .5129 which is a positive value. On the other hand, the influence of the attitude which is considered as the *b* = .5261.

H_{1a}: There is a positive relation between Perceived Usability and Attitude= Is Supported.

Furthermore, the direct effect of the perceived usability on the intention of

buying or continuing usage of the gamification tool is estimated by c'= .7697 it could be said that independent effect of the perceived usability has an impact on possibility on the intention of buying or continuing usage of the gamification by 0.7697 units higher on average

Moreover, the indirect effect could be attained either by calculating by doing some math to multiply the two-coefficients ab= .5129 * .5261 = 0.2698, which means that on average, 0.2698 units higher in their probability of intention of buying or recommending the gamification tool as a result of the effect of the perceived usability on their attitude

H3: Perceived Usability has an effect on Intention of Usage or Purchasing of the Gamification Tool in mediation of Attitude = Supported.

Table 15 Hypothesis Result between the Independents Experience (DT), Attitude (OYT) as mediator and Purchase the Gamification tool (KSAN)

		CONSEQUENT						**EFFECTS**	
		M (OYT)				**Y (KSAN)**		**Direct**	**Indirect**
		Coeff.	**SE**	**p**		**Coeff**	**. SE**	**p**	c'= .7765	ab=.2289
X (DT)	a	.5129	.0441	.0000	c'	.7765	1.1857	.0000		
M (OYT)		-	-	-	b	.4463	.1163	.0002		
CONSTANT	i_1	5.2952	.5303	.0000	i_2	4.4114	1.1857	.0002		
R^2 =.3340					R^2 =.3689					
F (1, 270.0000) = 135.3968, P = .000					F (2, 269.0000) = 78.6212, p = .0002					

*S.E.= Standard Error, Unstandardized regression coefficients reported. Bootstrap sample size 5000.

Within the values of the above explanation of the PROCESS it could be seen the direct relation between the independent viable (DT) and the dependent one (KASN), besides the indirect relation between the (DT) and (KSAN) with the mediation of the (OYT) shows significance of the P-value *** which is less than the standard value of 0.05 in both sides of the table. From the left side of the table, it could be seen that the regression value of the X variable (Experience) equals to a = .5129 which is a positive value. On the other hand, the influence of the attitude which is considered as the b = .4463

H_{1b}: There is a positive relation between Experience (DT) and Attitude (OYT) = Is Supported.

Furthermore, the direct effect of the Experience on the intention of buying or continuing usage of the gamification tool is estimated by *c'*= .7765, it could be said that independent effect of the Experience on possibility on the intention of buying or continuing usage of the gamification by 0.7765 units higher on average.

Moreover, the indirect effect could be attained either by calculating by doing some math to multiply the two-coefficients *ab*= .5129 * .4463 = 2289, which means that on average, 0.2698 units higher in their intention of buying or recommending the usage of gamification tool after experiencing a change in their attitude.

H_4: Experience has an effect on Intention of Usage or Purchasing of the Gamification Tool in mediation of Attitude = Supported.

Table 16 Hypothesis Result between the Independents Social Influence (SET), Attitude (OYT) as mediator and Purchase the Gamification tool (KSAN)

	CONSEQUENT								**EFFECTS**	
		M (OYT)				**Y** (KSAN)			**Direct**	**Indirect**
		Coeff.	SE	p		Coeff	SE	p	c'=	ab=
***X* (SET)**	*a*	.5129	.0441	.0000	c'	.1902	.0394	.0000	.1902	.1515
M		-	-	-	b	.2954	.0444	.0000		
CONSTANT	i_1	5.2952	.5303	.0000	i_2	1.8142	.4528	.0001		
		***R*² =.3340**				*R*² =.3687				
		***F* (1, 270.0000) = 135.3968,**				*F* (2, 269.0000) = 78.5646,				
		***P* = .000**				*p* = .0000				

*S.E.= Standard Error, Unstandardized regression coefficients reported. Bootstrap sample size 5000

As shown from the values of the above explanation of the PROCESS it could be seen the direct relation between the independent viable (SET) and the dependent variable (KASN), besides the indirect relation between the (SET) and (KSAN) with the mediation of the (OYT) shows significance of the P-value *** which is less than the standard value of 0.05 in both sides of the table. On the left side of the table, it could be seen that the regression value of the X variable Social Influence equals to *a* = .5129 which is a positive value. On the other hand, the influence of the attitude which is considered as the b = .2954

H_{1c}: There is a positive relation between Social Influence (SET) and Attitude (OYT). = Is Supported

over and above that, the direct effect of the Social influence on the intention

of buying or continuing usage of the gamification tool is estimated by *c'*= .1902, it could be said that independent effect of the social influence on possibility on the intention of buying or continuing usage of the gamification by .1902 units higher on average.

Additionally, the indirect effect could be attained either by calculating by doing some math to multiply the two-coefficients ab= .5129 * 2954= .1515, which means that on average, .1515 units higher in their intention of buying or recommending the usage of gamification tool after experiencing a change in their attitude.

H5: Social Influence has an effect on Intention of Usage or Purchasing of the Gamification Tool in mediation of Attitude = Supported.

VII. CONCLUSION AND RECOMMENDATIONS

Within the sixth chapter findings, recommendations, limitations, and future research have been discussed into four-parts. The first section of the research exhibit discussions on the findings and conclusion of the hypotheses, the second section manifests recommendations for marketers, organizations and consumers who are in need of gamification tools. Besides the third section presents the limitation of this research and the fourth part presents future research of the study.

A. Finding and Conclusions

Despite the using of the gamification concept since long time ago, either to conjugate the customers to specific brand by using the game like tactics, such as earning some points for the credit cards, and rewards from the companies, the nomenclature of the gamification considered as new for this field.

Even though the wide range of the gamification usage in all fields such as education, economics, designing and others, still some companies look at this field with much fears and taking the concept as working environment considered as taking risk for the companies, therefore they are looking forward from other big companies whom they using it if they successes then other companies will take this concept as their new tool of engaging either the employees or the customers to the company.

In some companies the gamification gives a solutions or answers for many unsolvable problems that faced them, with the collecting and analyzing the data from the consumers after their log in either with valid email address or social media credentials, by giving the feedback to the company which will have the ability to have fix the upcoming problems or at least have a hint about them and working of the solutions.

Solving the problems would also have the feedback to community, by giving the consumers rewards such as gift cards and discounts to stores and restaurants, for

using the application in good manner.

As seen from this research which was applied to people in Turkey specifically in Istanbul city, it could be seen that most of the participant have an idea about the gamification which leads the researcher to the following:

After analysing the data, and examine the hypotheses of this research, by studying the relationships between the (Perceived Usability, Experience, and Social Influence) of the gamification tools of the Turkish people as independent variable with their effect on (Attitude) as mediator, which leads to influence or affect their (Intention of Usage and Purchase) in the future as dependent variable.

As shown from the previous chapter, many key outcomes have been made, before counting them it should be clarify that the total collected data was 300 with deleting the missing data and unengaged responses only 282 responses had left to be analyzed now the outcomes will be order below.

From the collected data it seems that preponderance 94% of the Turkish consumers have the awareness towards gamification tools, which is not considered as small percentage of awareness among the Turkish people, or the Istanbul citizen specifically whom their Attitude has been positively affected by gamification tools, which as a result affected their future Intention of either using or purchasing the gamification tool or service.

First of all, by studying the firs hypothesis which is composed of three sub-hypotheses that study the relationship between the independent's variables (Perceived Usability, Experience, and Social Influence) and the mediator the (Attitude).

From the outcomes of the first sub-hypothesis shows that the Perceived Usability has a strong positive relationship with the Attitude that is clear from the estimated p-value, which shows a really strong connection or association between the Perceived Usability the easiness of using and interacting with the gamification tool or service which, change the Attitude of the consumer toward the gamification tool that play an important role in continuation of the future usage, accordance to (Yucel & Gulbahar, 2013; Wang, et al, 2017).

H1a: There is a positive relation between Perceived Usability and Attitude (Supported)

According to Wang; Lu & Ho; Alabbasi whom refer to the Experience impact on the Attitude towards the gamification tool which came from the engagement of the user to the enjoyable experience towards the gamification tool. (Wang, et al, 2017; Lu & Ho, 2020; Alabbasi, 2018)

According to Ackermann & Palmer, demonstrated that previous experience has an impact on implicit attitudes which is meant more in the sub-consciousness, profoundly held attitudes, on the other hand; it has no impact on explicit attitudes which is expressed verbally with conscious, recognizing subjective effort, in comparison with new experience which influenced explicit attitudes not implicit attitudes. (Ackermann & Palmer, 2016)

H1b: There is a positive relation between Experience and Attitude (Supported)

Finally, the third sub-hypothesis which demonstrate that the social influence has strongly positive impact on the attitude towards the gamification tool as the P-value showed significance relation, which could be concluded that the Turkish people are influenced by social media, or environment that will impact their attitude towards the gamification tools, this was also supported from previous studies which stated that the social are more prone to positively reflect on attitude formation. (Hamari & Koivisto, 2015; Wang, et al, 2017; Yuksel & Durmaz, 2016)

H1c: There is a positive relation between Social Influence and Attitude (Supported)

Secondary; the relation between the attitude and intention of the either purchasing or using the gamification as shown from the last chapter considered as significant relation by calculated P-value.

This was given more emphasizing from the previous studies such as Yuksel & Durmaz, which was the first gamification study in Turkey stated that the attitude affects positively the intention towards the gamification tools, which is emphasis that the Turkish people attitude influenced their future intention. (Yuksel & Durmaz, 2016)

H_2: There is a positive relation between Attitude and Intention (Supported).

Tertiary: from this point on the influence of the mediator Attitude is discussed, as previously discussed from chapter five that the Perceived Usability the ability to use the gamification tools in an easy manner, that impact the user or the consumer attitude positively as consequence of that the alleviation towards the intention towards the usage or purchasing is risen positively too.

This was clearly obvious from the P-value which is a significant value. This prominence was really clear according to Yuksel, Durmaz and other studies which are stated that the Perceived Usability has its impact or improving impact on the intention towards the gamification tools with the mediation of attitude. (Yuksel & Durmaz, 2016)

H_3: Perceived Usability has an effect on Intention of Usage or Purchasing of the Gamification Tool in mediation of Attitude (Supported).

Fourthly; this was a really interesting even though that the Experience has no significant effect on the Attitude alone, it shown significant P-value with the Attitude as mediator in order to affect the Intention towards usage or purchasing the gamification tools, according to Lu and Ho, who consider that as soon as the user gets the pleasure or fun experience during the usage of the gamification tool, this experience will have the impact on their attitude which, will have increase the intention to continue the usage or advising others to purchase and use the gamification tool.(Lu & Ho, 2020)

H4: Experience has a positive effect on Intention of Usage or Purchasing of the Gamification Tool in mediation of Attitude (Supported).

Finally, Social Influence as an independent variable as was seen from the last chapter has a positive effect on the Intention of Usage or Purchasing of the Gamification Tool in mediation of Attitude, it was clearly shown by the significant P-value.

In some studies attributed that to an increase the interaction between the users of the gamification tools as a whole community, by sharing the experience of self-efficacy besides the fun that was attached with during the experience of the usage of the gamification tool, would impact the assessment of other users, which at

the end will make the users' community think that they are within the same stigma society and have the same attitude towards the same gamification tool as consequence of that. (Lu & Ho, 2020)

H5: Social Influence has an effect on Intention of Usage or Purchasing of the Gamification Tool in mediation of Attitude (Supported).

B. Recommendations

All in all, from the previous conclusion and discussion, it is apparently that the Turkish community has large knowledge about the gamification tools and its impact on their life as a new technology that emerge more to the society.

However, even though having this amount of Knowledge heir experience impaction wasn't having the assumed prediction from them to influence their attitude, besides some gamification tools was expensive even to the users in order to purchase or reuse them if they were services.

Therefore, renovated conceptions are obligated to be found in order to improve the new usage of the new technology.

To the technological companies in order to improve the purchasing power from the users the prices of the tools or services must be within at least the average salary of the users, because some of them considered to be young such students to have this high budget.

To the technological companies, the easiness of the utilization of the software and improvement of the performance bring the attraction of the users to the gamification tools or services which will increase the future usage and purchase of them.

Following the technological influencers, will have a great impact on the Turkish users to improve their experience towards the gamification tools or services, due to their credential in this field which, will avoid the future trial and error besides knowing the tips and tricks of their intended tool.

Social influencing the surrounded community plays an important milestone of increasing the users’ usage or purchase of the gamification, either in positive or

negative ways. Sharing the experience with the surrounded community of the users will improve the attitude of the society from the core to the whole.

C. Limitations of the Research

Each study has several limitations. Within the below points the limitations of the study to be mention: The size of the sample doesn't give the ability to the study result to be generalized, because it was only 272 from the Turkish users of the gamification tool who live only in Istanbul city. Even though increase the usage of the technology, it was seen from the study that the younger ages don't have any idea about the gamification tool, or they don't have the ability to use it properly and this also include the older ages too. The study only focused on specific three dimensions of gamification intention either using or purchasing, Perceived Utility, Experience and Social influence which were analysed, the future researchers should include more dimensions, for further personal variable should be also included especially to the younger and elderly ages, the impact of the attribution of using the gamification tool. Questionnaire distribution has also some limitations due to the lack of all-inclusiveness of the research either to the users or the techniques used to the distribution, because it was only online questionnaire that led to the lost in some accessibility to the users, and this should be taking into account for the future studies. The time period of the study and little misunderstanding from the respondents was also considered as a limitation to the researcher to generalize the study.

D. Future Researches

This study establishes the obligation of future researchers to give more consideration to gamification technology as a marketing strategy. This will combine two fields together for researchers whom interested in both technology and business:

Taking all the previous limitations into consideration enhance the popularability of the study outcomes.

For the future researchers' specification of a gamification tool or service and perform a study that have the previous dimensions or more dimension on it.

Perform the same study idea on non-developed countries to discover the

spread of the gamification technology with taking into account the increase in the sample size of the study.

Implement the study dimension on only the future continuation usage of the gamification specific tool with specific sector, in education, health system, marketing, and others.

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APPENDICES

Appendix :A Survey Questionnaire (English Version)

Appendix B: Survey Questionnaire (Turkish Version)

Appendix C Ethical Approval Form

Appendix: A Survey Questionnaire (English Version)

Demographic Questions:

1. Gender
- Male.
- Female.

2. Age
- 18 age and under
- 19- 25
- 26-34
- 35-44
- 45 ages and more

3. marital status
- Single.
- Married.

4. Education
- Primary Education
- High School
- Graduate
- License
- Associate Degree

5. Occupation
- Student.
- Private Sector Employee.
- Public Employee Self-employed
- Retired.
- Unemployed

6. Household Income:
- 2020 TL and under
- 2021-3500 TL
- 3501 TL - 5.000 TL
- 5.001 TL - 7.000 TL
- 7.000 TL and more

Utility and Attitude **Mark how much you agree with the following statements: 1 = Strongly Disagree, 2 = Disagree, 3 = What Agree Neither Disagree, 4 = Agree and 5 = Strongly Agree.**						
1.	Overall, I am satisfied with how easy it is the use this system	☐	☐	☐	☐	☐
2.	I could effectively complete the tasks and scenarios using this system	☐	☐	☐	☐	☐
3.	I was able to efficiently complete the tasks and scenarios using this system	☐	☐	☐	☐	☐
4.	I felt comfortable using this system.	☐	☐	☐	☐	☐
5.	It was easy to learn to use this system.	☐	☐	☐	☐	☐
experience and attitude **Mark how much you agree with the following statements: 1 = Strongly Disagree, 2 = Disagree, 3 = What Agree Neither Disagree, 4 = Agree and 5 = Strongly Agree.**						
1.	I felt free and spontaneous. Participation	☐	☐	☐	☐	☐
2.	I discovered something new about myself	☐	☐	☐	☐	☐
3.	The experience stands out in my mind as it is emotionally intense	☐	☐	☐	☐	☐
4.	The experience causes me to feel differently about myself	☐	☐	☐	☐	☐
5.	The experience is beyond usual intensity of emotions	☐	☐	☐	☐	☐
6.	The experience makes me to reflect on who I am	☐	☐	☐	☐	☐
7.	My confidence raised like never before during my participation	☐	☐	☐	☐	☐
social influence and attitude **Mark how much you agree with the following statements: 1 = Strongly**						

Disagree, 2 = Disagree, 3 = What Agree Neither Disagree, 4 = Agree and 5 = Strongly Agree.						
1.	People who influence my attitudes would recommend gamification tools	☐	☐	☐	☐	☐
2.	People who are important to me would think positively of me using gamification tools.	☐	☐	☐	☐	☐
3.	people who I appreciate would encourage me to gamification tools	☐	☐	☐	☐	☐
4.	My friends would think using gamification tools is a good idea.	☐	☐	☐	☐	☐
Attitude Towards Gamification **Mark how much you agree with the following statements: 1 = Strongly Disagree, 2 = Disagree, 3 = What Agree Neither Disagree, 4 = Agree and 5 = Strongly Agree.**						
1.	All things considered, I find using these activities to be a wise thing to do	☐	☐	☐	☐	☐
2.	All things considered, I find using these activities to be a good idea	☐	☐	☐	☐	☐
3.	All things considered, I find using these activities to be a positive thing.	☐	☐	☐	☐	☐
4.	All things considered, I find using these activities to be favorable	☐	☐	☐	☐	☐
Intention of using or purchasing **Mark how much you agree with the following statements: 1 = Strongly Disagree, 2 = Disagree, 3 = What Agree Neither Disagree, 4 = Agree and 5 = Strongly Agree.**						
1.	If I were going to buy this product, Or use the services I would consider the activity regarding this product.	☐	☐	☐	☐	☐
2.	If I am in need, I would buy this (product),	☐	☐	☐	☐	☐

	Or use the services					
3.	Likelihood of purchasing this product or using services is high. .	☐	☐	☐	☐	☐
4.	It is possible that I would buy this product	☐	☐	☐	☐	☐

Appendix B: Survey Questionnaire (Turkish Version)

Demografik Özellikler:

1. **Cinsiyetiniz**
- Kadin
- Erkek
2. **Yaşınız:**
- 18 yaş ve altı
- 19- 25
- 26-34
- 35-44
- 45 yaş ve üstü
3. **Medeni Haliniz**
- Evli
- Bekâr
4. **Eğitim Durumunuz:**
- İlköğretim
- Lise
- Ön Lisans
- Lisans
- Lisansüstü
5. **Mesleğiniz:**
- Öğrenci
- Özel Sektör Çalışanı
- Kamu Çalışanı
- Serbest Meslek
- Emekli
- Çalışmıyor
6. **Hane Geliriniz:**
- 2020 TL ve altı
- 2021-3500 TL
- 3501 TL - 5.000 TL
- 5.001 TL - 7.000 TL
- 7.000 TL ve üstü

Yarar ve Tutum Aşağıdaki ifadelere ne derece katıldığınızı **1 = Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3=Ne Katılıyorum Ne Katılmıyorum, 4=Katılıyorum ve 5=Kesinlikle Katılıyorum** olacak şekilde işaretleyiniz						
1.	Genel olarak, oyunlastirma araclarinin kullanımının kolay olmasından memnunum	☐	☐	☐	☐	☐
2.	Oyunkastirma araclarini kullanarak görevleri ve senaryoları etkili bir şekilde tamamlayabilirim.	☐	☐	☐	☐	☐
3.	Oyunlastirma araclarini kullanarak görevleri ve senaryoları verimli bir şekilde tamamlayabilirim.	☐	☐	☐	☐	☐
4.	Oyunlastirma araclarini kullanırken kendimi rahat hissederim	☐	☐	☐	☐	☐
5.	Oyunlastirma araclarini kullanmayı öğrenmek kolaydır	☐	☐	☐	☐	☐
deneyim ve tutum **Bu oyunlaştırma araçlarını kullanırken:** Aşağıdaki ifadelere ne derece katıldığınızı **1 = Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3=Ne Katılıyorum Ne Katılmıyorum, 4=Katılıyorum ve 5=Kesinlikle Katılıyorum** olacak şekilde işaretleyiniz						
1.	Kendimi Özgür ve doğal hissederim.	☐	☐	☐	☐	☐
2.	Kendimle ilgili yeni bir şey keşfederim	☐	☐	☐	☐	☐
3.	duygusal yoğunluk sağladığı için deneyimler aklımda kalır	☐	☐	☐	☐	☐
4.	Elde ettiğim deneyimler kendimi farklı hissetmemi sağlar	☐	☐	☐	☐	☐
5.	Elde ettiğim deneyim, duygu yoğunluğunun da ötesindedir.	☐	☐	☐	☐	☐
6.	Elde ettiğim deneyim, kim olduğumu anlamamı sağlıyor	☐	☐	☐	☐	☐
7.	Güvenim hiç olmadığı kadar arttır	☐	☐	☐	☐	☐
sosyal etki ve tutum Aşağıdaki ifadelere ne derece katıldığınızı **1 = Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3=Ne Katılıyorum Ne Katılmıyorum, 4=Katılıyorum ve 5=Kesinlikle Katılıyorum** olacak şekilde işaretleyiniz						
1.	Tutumlarımı etkileyen insanlar oyunlaştırma araçları kullanmayi tavsiye etmektıdır	☐	☐	☐	☐	☐
2.	Benim için önemli olan insanlar oyunlaştırma araçlarını kullanirsam, hakkımda olumlu düşünürler.	☐	☐	☐	☐	☐
3.	Takdir ettiğim insanlar beni oyunlaştırma araçlarını kullanmaya teşvik eder	☐	☐	☐	☐	☐
4.	Arkadaşlarım oyunlaştırma araçlarını kullanmanın iyi bir fikir olduğunu düşünüyor.	☐	☐	☐	☐	☐
Oyunlaştırmaya Yönelik Tutum Aşağıdaki ifadelere ne derece katıldığınızı **1 = Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3=Ne Katılıyorum Ne Katılmıyorum, 4=Katılıyorum ve 5=Kesinlikle Katılıyorum** olacak şekilde işaretleyiniz						
1.	Oyunlaştırma araçlarını kullanmak akıllıcadır	☐	☐	☐	☐	☐
2.	Oyunlaştırma araçlarını iyi bir fikirdir	☐	☐	☐	☐	☐

3.	Oyunlaştırma araçlarını kullanmanın positif bir şey olduğunu düşünüyorum	☐	☐	☐	☐	☐
4.	Oyunlaştırma araçlarını kullanmanın faydalı olduğunu düşünüyorum	☐	☐	☐	☐	☐
Kullanmanın veya satın almanın niyeti Aşağıdaki ifadelere ne derece katıldığınızı **1 = Kesinlikle Katılmıyorum, 2=Katılmıyorum, 3=Ne Katılıyorum Ne Katılmıyorum, 4=Katılıyorum ve 5=Kesinlikle Katılıyorum** olacak şekilde işaretleyiniz **.**						
1.	İhtiyacım varsa, oyunlaştırma araçlarını satinalabilirim.	☐	☐	☐	☐	☐
2.	Oyunlaştırma araçlarının kullanımı artmaktadir.	☐	☐	☐	☐	☐
3.	Oyunlaştırma araçlarını satınalma ya da bu hizmetleri kullanma ihtimalim yüksektir.	☐	☐	☐	☐	☐

APPENDIX C Ethical Approval Form

Evrak Tarih ve Sayısı: 15/04/2020-1488

T.C.
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