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EFFECT OF AUGMENTED REALITY ADVERTISING
ON PURCHASE INTENTION

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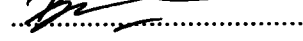
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Effect of Augmented Reality Advertising on Purchase Intention

Arttırılmış Gerçeklik Kullanılan Reklamların Satın Almaya Etkisi

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LIST OF ABBREVIATIONS

AR: Augmented Reality

B2B: Business to Business

B2C: Business to Consumer

ELM: Elaboration Likelihood Model

ENT: Entertainment

EOU: Ease of Use

IMC: Integrated Marketing Communication

INF: Informativeness

IRR: Irritation

MarCom or MC: Marketing Communication

MEM: Memorability

PIN: Purchase Intention

ROI: Return of Investment

QR: Quick Response

SEO: Search Engine Optimization

SEM: Search Engine Marketing

STP: Segmentation, Targeting, Positioning

TAM: Technology Acceptance Model

TEF: Time Effort

TPB: Theory of Planned Behavior

TRA: Theory of Reasoned Action

VR: Virtual Reality

WOM: Word of Mouth

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ABSTRACT

Usage of Augmented Reality (AR) in advertisement industry is a relatively new concept when compared with the traditional advertisement and other digital advertisement methods. Hologram usage in AR advertisements has also been evolving with the rise of technology era, like other AR types. AR advertisements are seen as powerful examples of interactive advertising with their immersive medium presentation to customers. Prior research studies have revealed that there are various variables that have an effect on the behaviors, attitudes, and intentions of customers however, since the concept is new, there are not many research studies in the literature.

In this research study, effects of entertainment, word of mouth, informativeness, memorability, irritation, time-effort, and ease of use on purchase intentions of customers were investigated mainly for augmented reality hologram advertisement, and also for making comparison, results for traditional print magazine advertisement were examined.

As a result of the study, it was understood that word of mouth, informativeness, and time-effort have a positive effect on purchase intention of customers, for AR advertisement. In addition, although entertainment construct has no direct correlation with purchase intention, due to its high relationship with word of mouth, it indirectly effect purchase intention of customers. All mentioned research constructs were also compared within themselves, and seen that respondents find augmented reality hologram advertisement, more entertaining, worth to share, easy to memorize and remember, and their intention to purchase is higher when compared with traditional print magazine advertisement.

With the research findings of the study, it is aimed to contribute the marketing and advertising literature, and by taking the results of this study, future research can be conducted with the addition of various other variables in order to understand their correlation with purchase intention of customers.

Keywords : Augmented Reality, Hologram, Interactive Advertising, Purchase Intention, Traditional Advertising

ÖZET

Reklam endüstrisinde, alışlagelmiş geleneksel metodların yanısıra, dijitalleşme ve teknolojik inovasyonların etkisi ile beraber dijital reklamcılık metodlarının kullanımı son dönemlerde oldukça sık karşımıza çıkmaktadır. Gün geçtikçe gelişen teknoloji ile beraber, reklamcılar tüketicileri etkileyebilmek adına ilgili tüm imkanlardan faydalanmaktadır. Teknolojinin gelişmesi ile beraber yeni bir konsept olan Arttırılmış Gerçeklik, birçok farklı endüstride kullanıldığı gibi, reklamcılıkta da ilgiyle takip edilmekte ve kullanılmaktadır. İzleyicilere sağladığı interaktif ortam sayesinde, bu tip reklamlar ilgi çekici bulunmakta ve sürekli değişen, gelişen tüketici ihtiyaç ve isteklerine hizmet etmektedir. Hologram kullanımı ile sağlanan arttırılmış gerçeklik içeren reklamlar bu tarz reklamlara örnek olarak incelemekte ve tüketicilerin üzerinde yarattığı davranışsal, tavırsal, ve niyetsel değişiklikler araştırılmaktadır.

Yapılan bu araştırmada, arttırılmış gerçeklik içeren reklamda eğlence, ağızdan ağıza reklam, bilgi vericilik, akılda kalıcılık, rahatsız edicilik, zaman ayırma isteği ve kullanım kolaylığı gibi faktörlerin tüketicilerin satınalmaya olan niyetlerindeki etkisinin ölçülmesi hedeflenmiştir. Karşılaştırma yapabilmek adına, ilgili faktörlerin geleneksel reklam örneği olan basılmış dergi reklamında da tüketicilerin satınalma niyetine etkileri incelenmiştir.

Araştırmanın sonucunda, arttırılmış gerçeklik içeren reklam özelinde, ağızdan ağıza paylaşımın, bilgi vericiliğinin, ve zaman ayırma isteğinin, tüketicilerin satınalma niyetlerini pozitif olarak etkilediği görülmüştür. Bununla beraber, eğlence faktörünün satınalma niyeti üzerinde direkt olarak herhangi bir etkisi saptanmamış olmasına rağmen, ağızdan ağıza paylaşım ile güçlü bir ilişkiye sahip olduğu görülmüştür. Bu sebeple, eğlence faktörü direkt olarak olmasa da dolaylı yoldan satınalma niyetine pozitif yönde etki etmektedir. Bahsi geçen tüm değişkenler ayrıca kendi içinde değerlendirilmiş olup, tüketicilerin arttırılmış gerçeklik içeren reklamı daha eğlenceli, paylaşmaya değer, akılda kalıcı bulduğu görülmüştür. Ayrıca, arttırılmış gerçeklik içeren reklamın satınalmaya olan etkisinin, geleneksel reklama göre daha yüksek olduğu görülmektedir.

Yapılan bu araştırmanın, pazarlama ve reklam literatürüne katkı sağlaması ve ileride yapılacak olan araştırmalara ışık tutması amaçlanmıştır.

Anahtar Kelimeler: Arttırılmış Gerçeklik, Hologram, İnteraktif Reklam, Satınalma Niyeti, Geleneksel Reklam

INTRODUCTION

We are living in a world that is continuously changing and thus, forcing us to change accordingly and be open for the adaptation. With the rise of technological innovations and digitalization, behaviors, attitudes, and intentions of people have been taking a shape, based on their changing needs and demands. Hence, marketers have been searching the appropriate ways of reaching and effecting their customers by working on their campaigns.

Advertising as a main marketing communication tool, in which non-personal message related with the products or services is tried to be presented over target audience, is one of the fields that technological evolution strongly affects. In order to reach target audience, catch their initial attraction, and influence their purchasing behaviors and intentions, advertisers accordingly create and present their campaigns. (Stanton, 1984; Bovee and Arens, 1992)

Although traditional advertisement methods like television, radio, newspapers, print magazines, and outdoor billboards, have still been considered as the strongest due to its capability to reach mass audience, its usage has started to be changed with the rise of technology and digital era. (Klopf, 2007) Expectations and interests of people over generations reveal differences, and since new generations are born into the technology, their needs and demands are not the same with older generations. They are curious about what is going on in their surroundings, and they have an ability to understand and use technology. (Mainland, 2012 ; McCrindle, 2010) Therefore, marketers and advertisers keep in mind that, they need to keep pace with changes in market dynamics, and rapidly changing customer requirements and demands.

Moreover, with the changing dynamics of the market, customers want to face with advertisements in which they have the control in terms of acceptance or ignorance when desired. (Carroll, Barnes, Scornavacca and Fletcher, 2007) Customers also have a desire to express their feelings, talk about their experiences, giving feedbacks about products or services that they used or purchased, as a part of continuous interactive communication. Digital advertisements provide this opportunity to customers (Newell and Merier 2007 ; Kondo and Nakahara, 2007) in which two-directional interaction with wider range of audience can be formed.

Relatively new concept of digital advertising namely Augmented Reality (AR) has recently been started to used in advertisement industry as a result of the demand for attracting, adding value to customer experience, and establishing strong engagement with customers. Since augmented reality provides an immersive environment, customers have the opportunity of directly involving in communication process and also with the product or service itself. (Luo et.al, 2011)

Augmented Reality advertisements have the power of putting the product in the hand of the users (Woods, 2009) and this lets the users closely interact with the advertisement as a function of engagement marketing strategy. In general, by simply using their mobile devices as a viewfinder, users can see the world with an extra content like two-dimensional, or three-dimensional objects. (Al-Modwahi, Parhizkar, and Lashkari, 2012) This strong engagement with customers, give some advantages to advertisers like, novelty perception of an advertisement, long-term emotional relationship with customers, sales-boosting opportunity by eliminating the time-wasting steps in shopping, word of mouth advertising without investing any extra budget on it.

Positive experience and thoughts of people determine the success of an advertisement, since innovators and early adopters from *Diffusion of Innovation Theory*, are the first groups who have the influence over following groups for adoption the related innovation. Those people like to try new technology and be opinion leaders to followers, their thoughts about the advertisement and product or services possibly will effect the behaviors and intentions of others. (Rogers, 2003)

There are various augmented reality advertising methods available, and being developed, however independent from the AR application types, customer preferences and intentions are required to be well understood by advertisers, also with the determination of the factors that have an influence on preferences and intentions. (Jamieson and Bass, 1989) Determination of the factors that effect purchase intention and usually actualization of the purchase, is a critical point for advertisers in order to predict the performance of their products or services. By taking the Technology Acceptance Model (TAM) as a reference, various research studies reveal that factors like ease of use, usefulness, and enjoyment have strong influence on the purchase intention of users. (Hausman and Siepke, 2009) Since those factors are commonly faced within interactive advertisements, AR advertisements are believed to result in stonger purchase intentions. (Li, Daugherty and Biocca, 2002; Klein, 2003; Schlosser, 2003).

In this research, entertainment (ENT), word of mouth (WOM), informativeness (INF), memorability (MEM), irritation (IRR), time-effort (TEF), and ease of use (EOU) constructs have been examined and their effect on purchase intention (PIN) in augmented reality advertisements were aimed to be presented. In addition, all constructs except EOU, were examined for traditional advertisement type, which was print magazine, in order to make comparison with augmented reality advertisement in terms of purchase intention of the viewers. Furthermore, the relationship between entertainment (ENT), and word of mouth (WOM) ; and the relationship between informativeness (INF), and memorability (MEM) were also aimed to be investigated.

This research study was divided into five main parts including, literature review, methodology followed, findings of the research with various analyses of the data collected, conclusion, and research limitations.

In literature review section, researches about marketing communication, integrated marketing communication, advertising, digital advertising, augmented reality, diffusion of innovation theory, and technology acceptance model have been investigated and findings of former researches have been given as a background of the research topic. In addition, determined research constructs were explained in detail and related researches about those constructs were included.

In methodology section, research objective and research design were explained in detail. In addition, sample selection & data collection, questionnaire design, theoretical framework of research, and measurement of independent and dependent variables were included.

After data collection, research findings were gathered from SPSS platform and presented in research findings section of this study. Descriptive statistics for demographic variables including age, gender, education level, and income level of respondents, factor analysis, regression analysis, and paired sample t-test analysis were explained in detail.

At the end, research findings were concluded and discussed in conclusion section, by making necessary comments and deductions. Limitations of the research were also included in this research, in the related section in order to light the future researches.

2. LITERATURE REVIEW

2.1. MARKETING

Marketing can be defined as an art of management process of creating, communicating, delivering, and exchanging offerings to customers with an aim of satisfying the needs and demands. (Bagozzi, Richard, 1975)

Although marketers aim to achieve the set of activities for influencing the choice of the customers, successful marketing is not that easy, and there is no specific success formula. Interaction with the customer is one of the key points for understanding the needs and demands of them, but often customers cannot accurately describe their needs and their demands are frequently change. Furthermore, competition in the market is not predictable since the trends are not stable.

With the changing world dynamics, marketing is a practice not only processes itself, but also includes the profession areas like economics, sociology, psychology, anthropology, and recently even neuro-science.

Many marketers struggle with the decision of which kind of marketing is more beneficial for their products and services and in general traditional marketing method have been following. Traditional marketing includes the channels like television and radio commercials, printed magazines and newspapers, and also using outdoor activities like billboards and flyers.

Nevertheless, thanks to the technological improvements digital marketing method is the way that has been preferred by many marketers for reaching out their target audience. The most common examples can be given as internet videos, social media commercials, influencer marketing, e-commerce marketing, content marketing and e-mail marketing.

Both type of marketing supports each other and generally does not solely operate. Although many companies have been started to invest on digital marketing with the rise of technology era, traditional marketing method still plays an important role in marketing environment. For this reason, advantages and disadvantages of two kind of marketing should have been kept in mind during the decision process of marketers. (Stuart Danker, 2018)

Traditional marketing has been used since 4000BC so it is not new for the audience whereas digital marketing has started to be used with the early millennia. Being time tested of traditional marketing, makes it trustworthy. In addition, to advertise products or services on traditional media, several protocols are needed to be followed and this increases the credibility of traditional marketing. Furthermore, traditional marketing is seen as familiar for a wide range of audience, however digital marketing tools are still new for older generations.

Digital marketing on the other hand, has many advantages over the traditional marketing method. First of all, it allows two-sided communication whereas in traditional marketing an information is served to audience and hoping them to decide for taking an action. Moreover, digital marketing allows marketers to pinpoint their target audience. In each campaign, marketers have an opportunity to select their target audience and deliver relevant information. Also, by following digital marketing method it is easy to reach out wider range of audience with one click, and so not only local audience but also international ones can be targeted. (Julie Cave, 2016)

The last but not the least advantage of digital marketing over traditional marketing can be mentioned as its data-driven property. Thanks to digital tools, the outcomes of digital marketing activities can easily be measured and also recorded in a short time, by this way marketers can take necessary precautions without wasting time. For example Google Analytics tool is the most known and used insight tool for checking the digital activities in a real time, one can see how many customers saw the information given, how many of them took an action etc.

Independently of marketing types, marketing involves several steps before bringing the product or service to the marketplace like, definition of target audience, doing market research, forming a well-designed communication strategy, adjusting financial parameters, identifying and selecting a product, determining its price and promotion strategies, and making the selection of appropriate channel for the distribution of a product.

Among all, defining the target audience and delivering the desired message to them is highly crucial steps of marketing since those steps constitute the base of other steps.

2.2. MARKETING COMMUNICATION

Marketing Communication, also known as MarCom, or MC, has always been a crucial topic for marketers from the very beginning. Companies try to transmit their messages to their potential customers with the aim of increasing the awareness of the product or services, and persuading them to complete the purchasing action at the end.

Persuasion can be defined as the main key factor of marketing communication. Hence, marketers try to understand and accordingly manipulate the attitudes and behaviours of their targeted audience, by creating a positive impression on the product or services that they offer.

Strong and effective persuasion generally requires well-designed message for the target audience. The marketing message which has an aim of grabbing the attention, should "speak" on behalf of the creator, it should be easily understandable, it should not need further explanation at first view, and it should create emotional impact on the potential customers.

In order to create a successful marketing message, at first stage the target audience should be well defined and then needs and demands of that target audience should be well identified. When the audience that is targeted realizes the message addresses their requirements or problems, they will form emotional attachment and so they will be more open to that message.(Goldsmith and Lofferty, 2002) In other words, marketers should focus on the approach called "What is in it for me" to grab the attention of potential customers, instead of dealing with "What are we doing / what did we do as a company"(David Frey, 2017)

In order to understand deeply how persuasion occurs, **Elaboration Likelihood Model**, a.k.a ELM, can be examined. ELM states that there are two routes to persuasion one is Central Route, and the other one is Peripheral Route.(Petty et al. 1986)

Central route is generally followed when there is high involvement purchase decisions in the place. When there is a high risk in taking the decision, a large cognitive effort is needed because, the most suitable option is desired to be selected among many others. For instance, when the target audience is trying to be persuaded for buying a luxury item, the message given by the marketer will be evaluated in detail in order not to lose extra money.

On the other hand, in peripheral route target audience generally act emotionally, rather than acting rationally like they do in central route. Potential customers will possibly select the product or services which they can form an emotional attachment among many others thus, the message given should include emotional patterns.

Besides persuasion, there are some other crucial factors of marketing communication, which have a strong effect on target audience. A group commonly named as ‘‘Opinion Leaders’’ are the ones who can affect the decisions of the potential customers. In general people who belong to this group are in the form of celebrities or idol personas and customers tend to act like them so that, can feel they have similar status in society. Opinion leaders are acting like a filter and firstly receive messages from senders and then share them to target customers. (Dahlen et. al, 2010). For this reason, companies keep in mind to use most known and most influential celebrities in their marketing communication tools for reaching their target audience. (Feick, and Price, 1987)

It is not fully required to be a celebrity for having an influential effect on targeted customers, being an ‘‘opinion former’’ has also strong effect on influencing the desired group. Opinion formers are the ones who are considered as knowledgeable people derived from their status in the society, thier jobs, qualifications etc. People believe in those group, find them trustworthy and consider as experts in selecting the highest quality products and services. For example, if a sneaker is recommended by a personal trainer, or a book that is recommended by a teacher, customers tend to follow those advices and make their choices in the market among many other opportunities. Therefore, not only opinion leaders, but also opinion formers are needed to be targeted by marketers during communication of their messages. (Joel M. Podolny, 1993)

While all of those key factors of marketing communication is significant for reaching the targeted audience, they can also be evaluated as the key determinants of the winning brands in market competition. The ones that aim to reach its target audience by using correct opinion leaders, and opinion formers, with their well-designed marketing message, get the advantage in marketplace.

On the other hand, marketers should be aware that there are also some factors which have a negative effect on the effectiveness of marketing communication. Those factors are generally named as ‘‘Communication Barriers’’.

Communication has mainly three stages which are noticing by target audience, understanding the message that is tried to be given, and acceptance or denial of the message for product or services. Anything that has a prevention possibility for the communication process at any of those stages can be evaluated as a barrier to communication.

Ideal communication should have properties like; interesting enough to be noticed by customers, clear and easily understandable, should reach to audience in the right place, at the right time, and the last but not the least should be able to catch the emotional point of view of the audience.

If a message that is demanded to be given, designed with non-creative ideas it is hard to be noticed by the customers unless it fulfills most of the other requirements mentioned. Creativity of the idea is crucial but it is not enough, a message is also need to be not complex, target audience should understand what is tried to be told. The communication should be stand out from the clutter, it should include the necessary information about the product or services, should be given with easily understandable language so the attention of audience can be caught. (Ang, 2014).

Consumer apathy can be evaluated as an another important barrier of marketing communication. As humanbeings, people have limited ability to show interest the things around them in terms of both capacity and duration. This is also known as selective attention, and marketers should pay attention that their messages can successfully be filtered among many others. Although the audience has a tendency of avoiding the communication, by creating a relevant stimuli their awareness should be triggered. (Kendra Cherry, 2018)

Customers tend to purchase familiar brands so proposing completely different product or services might lead to negative perception by the audience. Therefore, Brand parity comes as the another possible barrier for marketers during communication of their messages. Marketers should develop strong brand image for their products and services through their marketing communication strategies and try to differentiate their offerings in a competition since an effective marketing communication increases the brand equity. (Ang, 2014).

MarCom can be examined as a mix of various tools in which advertising, promotion, direct/indirect marketing, personal selling, word-of-mouth (WOM) marketing, sponsorship, and public relations exist. Each strategies have their own strenghts and weaknesses, thus integration of all of them brings an optimization to the marketing communication. (Kitchen, P., & Burgmann, I., 2015)

2.3. INTEGRATED MARKETING COMMUNICATION

Integrated Marketing Communication, abbreviated as IMC, can be defined as the coupled version of each marketing communication strategies in order to build huge and clear impact on the marketing message that is demanded to be shared with the audience.

Integration can be viewed in many aspects in literature of marketing communication, however the most common types can be listed as : Functional integration, message integration, media integration, and integration of timing.

Following only one of the marketing communication strategies sometimes is not enough for creating an impact on the purchase decisions of the target audience. For instance, a strong advertising of a product or a service is very effective in creating brand awareness, however this does not mean that the target audience will definitely purchase that product or service. For this reason, marketers should keep in mind that the integration of various functions like, promotions, word of mouth marketing, personal selling etc. is really crucial for a success. A strong communication should include all stages from receiving the message, to purchase decision, then to actualization of the purchase, and also post-purchase decision. (Mudzanani, T.,2016)

Integration of a marketing message and integration of media are another important factors in integrated marketing communication. The audience demand to receive consistent message when they face with an advertisement on television, social media, and at outdoor places. They want to feel similar emotions when they see the message at different channels, or at the same channel in different time, so that their attachment to a specific brand will become easier. The aim of marketers should be creating a strong recall of the marketing communication of a product or a service before the audience see the brand name. (Percy, L.,2008) Furthermore, exposing a marketing message in different media channels enables marketers to create a strong engagement with potential customers and feeds the consistency of the message.

Besides all, timing should not be ignored since it is one of the predominant factor for reaching and influencing the audience. A well-designed marketing message might not be effective as marketers planned, if the importance of timing is ignored. Marketing message should be shared with the target audience in the right time, at the right place. If the audience receive the message when they are ready to purchase, the actualization of a purchase is more likely to be seen.(Ang, L, 2014)

Integrated Marketing Communication has different planning approaches but the most common types of those are named as inside-out approach, and outside- in approach.

Marketers follow inside-out approach when the main goal is transferring the idea “what we make, we sell”. This approach has been criticized by many marketers since the needs and demands of the customer are ignored and the effort for understanding what customers want is weak. Sales driven organizations target the customer acquisition, instead of customer retention. On the other hand, outside-in approach focuses to the needs and demands of the customers. This type of integrated marketing communication operates by hearing the voice of the customers at first, and then accordingly plans their communication strategies.

As has been mentioned, integration of marketing communication tools is critical for reaching the desired target audience and influencing their purchase decisions. Each marketing communication mix elements play an important role and performed by marketers, however the value of advertising takes the leading role among all.

2.4. ADVERTISING

Advertising can be described as a main marketing communication tool in which well-designed, non-personal marketing message is aimed to be transferred to target audience for the related products or services, in order to influence the purchase behaviour of customers. (Stanton, 1984; Bovee and Arens, 1992)

Throughout the history, there have been seen many examples of advertising; usage of papyrus and wall posters including messages about sales were found in ancient Egypt, Greece, and Rome. (Behal, 2014; Sareen, 2014) Painted rocks or walls for commercial advertising been evaluated as an ancient advertising types have still been used in many regions of Asia, Africa, and S. America, and this method of advertising is believed to be received from rural parts of India. (Bhatia, 2000) Besides written and painted advertising types, in ancient China the most common advertising done by oral communication, as can be seen in the Classic of Poetry which is a book of songs to sell the related products. In addition, instead of written materials, images and signs have been used in Europe, in cities of Middle Ages since the general population do not know how to read.

In late 19th century, Barratt who is being called as the founder of modern advertising, proposed that an effective advertising should include catchy slogans and images that attract the individual's attention. He stated that an advertiser who wants to be successful, has to change with continuously changing needs and demands of the market. (Haig, 2005; Mirzoeff, 2002)

In following years Bernays stated that the advertisement will be more efficient if unconscious desires and requirements of the individuals are aimed to be triggered, instead of focusing the rational minds of them. He worked on the sublimated message integration into the product or services advertisements in order to effect human instincts. (Ewen, 1976; DiMaggio, 2012) Subliminal message term was originated from a book namely *The Hidden Persuaders*, written in 1957, by Vance Packard and in this book it says that producers of popcorn and Coca-Cola brands are using the technique in cinema and theaters, in order to increase the sales. The usage of those type of messages in ads shown in television, radio and internet for effecting the behaviors and intentions of customers, has been investigated in many areas from product or service advertisement, to political speeches. Although many researchers insist that subliminal advertising is powerful, since usage of sublimination is restricted due to ethical considerations. (Merikle, 2016)

Companies can either work with media agencies in which designers, creative heads, editors, and visualizers focus for creating advertisements, or can allocate the advertising work to the teams within the organization. (Morden, 1991) In both cases, the primary mission of advertising, can be defined as reaching potential customers, creating and in some cases increasing the awareness, influencing attitudes and purchase behaviors of them. Advertisers need to solve out the reasons why customers behave the way they would like, and also need to understand the effect and role of advertising on that behavioral response. (Latif et al., 2011) For this reason, an advertising plan is required to be done which aims to match the right audience with the right message, and to present it in the right medium.

In order to find the right audience, at first marketers need to divide the market into segments which are constituted of consumers with similar needs & demands, and common interests. By this way, a marketer will be able to determine which type of customer will prefer their products or services. There are various types of market segmentation, for example business to business (B2B) marketers have been segmenting the markets based on countries, or related businesses whereas, business to consumer (B2C) marketers segment the market according to demographics, geographics, psychographics, and behaviors. (Dickson and Ginter, 1987)

Segmentation based on the demographical features of consumers has been made by taking the variables like age, gender, religion, race, family size, marital status, education, family income etc. (Armstrong and Kotler, 2005) This segmentation type assumes that consumers with similar demographic features, will have similar requirements, similar demands and similar lifestyles, so that their product or service preferences and purchasing intentions will show similar patterns. (Baker, 2003) For example, a firm that produces luxury women bags, will target the women consumers with higher incomes and accordingly design its advertising plan in order to attract potential customers.

In geographic segmentation, marketers aim to segment the market according to geographic patterns like country, region, population size, income per head, trade characteristics, languages spoken, and even the taste of that geographic area. (Bhasin, 2017) This type of segmentation has also been seen as the initial step for international marketing, in which marketers try to adapt their strategy based on the needs and demands of the customers live in specific geographic areas. (Wedel and Kamakura, 2010)

Psychographic segmentation, also can be named as lifestyle segmentation, is concerned with identifying the activities, interests, and opinions of customers and since this enables marketers to understand consumer motivations, has widely been used. Knowing what the customers do in their leisure times, what do they like, what are the hobbies of them, their opinions across the similar situations, let marketers and advertisers to generate relevant marketing messages in order to catch the attention of those customers. To illustrate, Zara uses the lifestyle of customers as a basis and the customer who have a desire to make shopping for the latest fashionable clothes, visit the Zara stores, and similarly Apple follows the same strategy and try to attract its potential customers by prioritizing the lifestyle concept. (Bhasin, 2017)

As the last but not the last important segmentation type, behavioral segmentation focuses on the division of consumers into different groups based on their observed behaviors. This type of segmentation has mostly been evaluated as powerful when it is compared with demographic or geographic segmentation (Burrows, 2015) , since it lets the marketers to understand the decision making process of the consumers. Before giving a final decision about the products or services, consumers at first define the problem, make information search, evaluate the alternatives, and then actualize the purchase step. Those all are affected by the behaviors of the consumers and so behavioral segmentation looks for the consumer behaviour patterns like purchase frequency, purchase occasion, loyalty, benefits sought etc. (Bhasin, 2017)

Occasion based segmentation focuses on the purchasing or using behaviors of consumers under different place or time. For example, during Ramadan, consumers tend to behave different in terms of eating and drinking habits, so marketers should keep in mind this behavioral change of consumers in these type of circumstances. In addition, a marketer can segment the market based on the benefits looked for by the consumers. Benefit sought, also named as needs based segmentation includes the consumers who have similar needs, who look for the similar benefits of the products or services that is marketed. For example, if consumers want to buy gluten-free biscuits with the rise of health concerns, then the marketers should focus on benefit sought segmentation and develop products with gluten-free features. (Ahmad, 2003; Loker and Perdue, 1992) Moreover, consumers might be segmented according to their loyalties to specific brands. Although gaining new consumers is an aim for marketers, keeping loyal ones is also a crucial point for a successful strategy.

Besides mentioned segmentation types, generational segmentation has been studied by marketers and advertisers for a long time. Based on birth dates of consumers, market segmentation has been followed for analyzing the related population. People's behaviors, intentions, and attitudes reveal differences among generations, by being shaped by key elements and one of the most effective point is technological changes. Generations have been divided into four main groups namely, the silent generation in which people born before 1946, baby boomers born between 1946 and 1964, generation X born between 1965 and 1980, generation Y – also known as Millennials, and generation Z born after 2000. (Patel, 2018)

The silent generation, baby boomers, and gen X are evaluated as the ones who stick to the traditions and do not want to face with innovative ideas in order not to extend their comfort zones. On the other hand, millennials and generation Z are considered as technology generation since they born into the technology era and more conscious about the world around them. They are well-educated, have a desire to work in well-paid jobs, have low loyalty levels when compared with the other generations, desire to face with innovations, and have ability to understand and effectively use the technology. (Mainland, 2012 ; McCrindle, 2010) With keeping all those points in mind, marketers and advertisers should keep pace with the changes in market dynamics, changing needs and demands of consumers in order to attract the new generations which is not seen as easy.

After segmenting, there is also another important decision point for marketers, and this step is named as “targeting” in which most attractive segments are aimed to be targeted based on the organization's objectives, and the value of the segment.

Defining the target market and the target audience are crucial stages during making the plan of successful advertising. Not only the needs and demands of the audience might reveal differences in terms of factors like social, economic, psychological, emotional, educational, age, gender and generations, but also their attitudes towards advertisements and influencing factors change. (Ayanwale et al., 2005) As Kotler said, “There is only one winning strategy. It is to carefully define the target market and direct a superior offering to that target market”.

There are three main targeting strategies which are undifferentiated, also known as mass marketing, differentiated, and concentrated (target marketing). In undifferentiated targeting, same marketing message has been transferred with the audience, by ignoring the differences in the market segment. The main aim is reaching as much people as possible by following only one strategy, by this way sales for the related product or a service will be maximized. In early days of radio, television, and newspapers, most of the campaigns were running with this way and with the rise of digital era, online platforms have been started to be used due to their penetrating power. (Shyu et al., 2015) However, since it requires mass production and mass advertising and it is hard to speak to everyone in the same level, this method is not seen as effective for small organizations. (Ramya and Subasakthi, 2013).

In differentiated targeting, there are at least two different segments and thus, different strategies are needed to be set by marketers and advertisers to appeal the consumers. For instance, a watch company needs to provide two different marketing campaigns for both women and men or also can provide different marketing messages in one campaign for luxury lovers, and budget-conscious consumers. (Newton, 2018) Since this type of targeting also requires a lot time, money, and energy, it is not suitable for small organizations.

Concentrated marketing is defined as a strategy in which a product or a service is provided for a well defined, specific segment, in order to attract the targeted consumer population. This strategy is an effective one, since it does not require mass production or mass advertising. (Newton, 2018) However, since this type of niche marketing strategy requires in-depth research in order to reach the specific target market, is found as difficult by many marketers. (Robert, 2015) Concentrated targeting lets marketers to focus on a specific product or a service and concentrate on a specific consumer group which potentially brings success over other types. (Caragher, 2008)

Positioning has been evaluated as the last step of STP plan (Segmentation, Targeting, Positioning) and according to Ogilvy (1983), it is an act of presenting the product or a service to the target audience so that the related brand will be located to a distinctive place in their minds. In order to understand what the target audience think and feel about the brand, perceptual mapping technique has been used by marketers. (Mccarthy, Mcguiggan, Perreault, and Quester, 2007) The diagram shows the responses of the audience for the questions about the uniqueness, quality, price, and creativity features of the brand by comparing them with the competitors.

Customers want to establish personal connections and they need to relate the content and tone of the marketing message that is tried to be transferred when they view an advertisement, with their needs and demands. (Lake, 2018) In addition, according to Sherlock (2014), a successful advertisement requires to make a connection with the target audience, on a personal level for forming and sustaining the long-term relationships. Therefore, it is important for advertisers to show relevant advertisements, to relevant respondents. For example, if an advertisement is about cosmetic products, that advertisement must be shown mostly to women customers. Place and time are also two important factors which are required to be kept in mind during the advertisements. If the target audience of a campaign, does not exist in the advertisement area, or does not see the advertisement in the right time, whole success of the campaign might be fail.

Moreover, generating creative idea that will catch the attention of the target audience and be memorable, is needed to be lead. By this way, brand cognition will effect realization, evaluation, and finally actualization of the purchase. (Romaniuk and Sharp, 2004). Basically, marketers need to find an interesting way to position their brands in the advertisements. While doing this, the positioning strategy should not be changed, but with a creative idea, the advertisement can be turned into an effective advertisement. Meaning, an idea should not be used just because it is simply creative, but should be used in order to increase the ad success. There is also a well known quote in advertising saying, the idea is not creative unless it sells.

In continuously changing world, it is almost impossible for marketers to reach their target audience without using advertising and besides all factors mentioned, selection of advertising channel plays an important role for a successful advertisement. In order to determine the most effective advertising channel for a campaign, marketers and advertisers work together and evaluate the factors like exposure number of the ad in target audience, cost and return on investment – can be abbreviated as ROI.

As being familiar with, for advertising purposes, usage of traditional media channels like television, radio, newspapers, printed magazines, and outdoor advertising have still been used as the major marketing communication tools. Advertisers have been aiming to attract and catch the initial attentions of their existing or potential customers by advertising their products or services via using one of those channels, or can use many of them based on the budget of the organization.

In addition, if companies want to receive higher returns of their investments, they need and want to invest in more than one advertising channel. By focusing more than one channel, gives advertisers a higher opportunity to reach wider range of audience. On the other hand, focusing only one channel with a high frequency will also bring success since theories show that consumers tend to recall the specific advertisement, and intent to actualize the purchasing step when they are exposed to an advertisement at least three, at most twenty times. (Iurilli, 2015)

The advantage of communication via traditional channels is its ability to reach wider range of audience and so for building an awareness about products or services that is tried to be advertised, traditional channels have been widely used. (Bruhn, Schoenmueller, & Schäfer, 2012)

Although advertising through all traditional channels have the ability to influence customers, advertising through television is still considered as the strongest medium due to its mass reach. (Latif and Abideen, 2011). In order to attract the target audience, companies highly require to use well-designed scripts, successfully written ad scenarios, sign agreements with celebrities, and pay for the best airtime. Since people can reach television wherever and whenever they want, and an average person watches television more than five hours per day according to Nielsen Media Research (Koblin, 2016), television advertisements let advertisers to easily reach their target audience. Although having those advantages, television advertising has also some disadvantages that the advertisers should keep in mind before planning their campaigns. When compared with other channels, it is not that easy to make changes in advertisements. Even for making changes in an ad, advertisers might need to change the whole script and pay additional money for that. In addition, while finding and also funding the best airtime for the advertisement of related product or service, advertisers should carefully decide whether the airtime is relevant for their products or services. (Aland, 2017)

Another powerful traditional channel used for advertisement purposes, is seen as radio. Advertisers prefer radio advertisements not just for its low costs when compared with other traditional channels, but also for its convenience in targeting specific audience. Advertisers who want to reach their specifically targeted audience, can advertise their products or services in relevant radio stations. (Swager, 2014) There are two main radio advertisement ways that advertisers follow; one is named as "live-reads", and the other one is "produced spots". In live-reads, the DJ read the pre-written commercial to the audience for influencing them (Hampp,

2009), whereas in produced spots record for the related client for their products and services is advertised to audience usually combining with attractive background music. (Kobliski, 2005) Moreover, since the audience are dealing with something else while they are listening the advertisement on radio, advertisers should keep in mind that the relevant advertisement should be repeated for a couple of time with emphasizing the crucial points like telephone number, name and features of the products and services etc. (Weinberger, Campbell, Brody, 1994)

Besides using television and radio advertising methods of traditional advertising, advertising via printed media like newspapers, printed magazines, and billboards & posters, has also been preferred by many advertisers.

Advertisers can make agreements with local, regional, or national newspapers for showing their advertisement based on their purposes. If the target audience is local, there is no need for giving an advertisement to nation-wide newspapers which will increase the costs. There are also many other points which have an effect on the cost of an advertisement and one of them is the popularity, also can be described as the readership numbers of that newspaper. If the newspaper via which the advertisement will be presented to the audience, has high reader numbers, an advertiser need to pay more due to the popularity of the newspaper which eventually increase the reading probability of an advertisement by the audience. Furthermore, an advertiser can select the related ad area with a desired size in the newspaper and the costs for the advertisement will differ based on the location and the size of an ad. (Kelly and Hoel, 1991) Nevertheless, usually newspapers have the control over advertisement placement on the desired pages, and will not give a guarantee for the best places on a page. Therefore, it might a problem for companies if competitors advertise their products or services in the same page. In addition, image quality in newspapers might not be that good which may decrease the attraction and reading intention of readers.

Besides newspapers, printed magazines let advertisers to reach their target audience based on their interests. Based on the product or services that an advertiser wants to advertise, an advertisement can be presented in sport, fashion, health, economics, history, science, and technology magazines. Giving an advertisement in specific area of magazines, enables the advertisers to focus on custom interests of the audience, and therefore gives an opportunity to reach relevant target audience of the campaign. For example, if an advertisement is about

technology, there is no need to advertise in health or fashion magazine which may cause money loss for the companies.

Publishing frequency of printed magazines is another point that advertisers should keep in mind. Although newspaper advertising gives an opportunity of reaching audience in a daily bases, most of printed magazines have publishing frequency as weekly or monthly. Therefore, advertisers should plan their ad campaigns and accordingly adjust budgets in order not to waste investments.

Consumers mainly purchase newspapers for receiving daily news, however they pay money for magazines just for receiving an information about their interests. The reason behind lies in the demand of satisfying themselves and therefore many magazines offer memberships to their customers and even send the magazines to the addresses of customers. Since, printed magazines are designed for the specific customers based on their interests, advertising in printed magazines enhance the brand awareness and brand perception of the customers. (Ellonen, 2010) High quality images and attractive coloring options allow companies to increase and sustain the quality of brand image in a positive way. In addition, sticking some promotion coupons, or trial size of related products in printed magazines increase the pleasure levels of audience. By this way, both reaching and pursuing the customers to try the product can be achieved. However, good quality of printed magazines and trial products make printed magazines expensive, and therefore it effects the advertising costs. Therefore, companies should evaluate pros and cons of advertising in printed magazines by comparing it with other traditional advertising channels.

Furthermore, advertising on posters and billboards have been used by advertisers for a long time, based on the campaign strategy of companies and scope of targeted audience. This type of advertising provides advertisers to reach their target audience in every place, in any time. Placing advertisements on billboards at streets or on-wall advertising enables the advertisers to reach their potential customers wherever and whenever they want. Especially those advertisements are placed in crowded areas, most visible buildings, and closer points of purchase. Moreover, since those type of advertisements are relatively short and do not require the effort of reading for the audience, their attraction and visibility levels might relatively be higher when compared with other techniques. Because the audience are facing with those advertisements when they are waiting for train, bus, or airplane, stucking in traffic jam, or walking through the streets and they can be evaluated as more suitable to receive the messages that is tried to be transferred.

Moreover, advertisers should focus on creative advertisements in order to catch the attraction of audience. Readers usually do not want to spare their time for reading or viewing an advertisement which includes cliché slogans, images, or has eye-straining long writings. In order to create a difference, advertisers should design their advertisements with full of creative or clever ideas, and by this way increase the probability of attracting their target audience. For example, usage of images that show actual burning stores of Burger King was used in an advertisement with a slogan “Flame grilled since 1954.” This example has shown even the worst moments can be turned into an advantage and can create word-of-mouth advertising as an addition mainly in today’s social media era. (Nudd, 2017) Creativity and especially humor usage in advertising has shown that humor usage can be effective in terms of receiving the attraction of individuals, if it is done in a proper way, if not it might cause a disaster. (Madden and Weinberger, 1982)

Although all traditional advertising channels have various advantages, with the rise of technology era and digitalization, the effect of traditional advertising has been started to be reduced. In addition, with an easy accessibility of various channels, advertisers need to find the most appropriate channel and also get their place in high competition. (Saleem et al., 2010)

As the world going digital, increase in technology usage and its effect in our lives cannot be ignored. Digitalization and technological innovations have been pushing all of us for an adaptation in many usage areas. Since the needs and demands of customers have been changing, with the rise of technology era, marketers and advertisers have continuously searching the ways of adaptation and evolving the advertisement sector. Integration of traditional advertising channels with digital/online advertising channels have been following as a strong method for a slight change. (Klopf, 2007) However, with rapidly changing generations, need and demand for using technology in almost every stages of our lives, has gaining a great importance. Millennials, Gen Z and upcoming generations are born in the technology, and so anything that does not include technological point, cannot be enough for catching their attention.

2.4.1. Digital Advertising

Customers met with a term called digital marketing with the development of digitalization in late 1990s and 2000s, when the usage of technology by businesses in marketing became a trend topic. Marketing and advertising of products and services have been started to be incorporated into digital technologies, mainly on internet, mobile phones, and display advertising.

Common digital marketing methods can be listed as search engine optimization (SEO), search engine marketing (SEM), content marketing, social media marketing, influencer marketing, campaign marketing, e-mail marketing, display advertising, etc. (Kates, 2013) In a highly competitive medium, the aim of the organizations is to increase the view of their advertisements on online platforms and thanks to the easy measurement opportunities, to measure the effectiveness and the efficiency of their campaigns.

Current digitalization in media, gives the opportunity of receiving, or ignoring the marketing messages and advertisements. Customers now feel that they have the control and know what they want, when they want and all of those moving the story towards the interactive marketing. (Newell and Merier 2007 ; Kondo and Nakahara, 2007)

In traditional advertising, the flow is one-directional which means an advertisement is designed by marketers and advertisers and shared with the audience for receiving the results. With this type of advertising, there is no specific interaction with the audience and the main purpose is transferring the marketing message about the related product or service. However, this strategy is not seen as effective by many organizations since the expectations of the customers have been changed and now they are waiting to be respected and they want to express their feelings and preferences to marketers and advertisers in a part of ongoing communication.

Digital advertising not only allows reaching to audience in a two-way interaction through various channels, but also has many advantages over traditional advertising. Reducing costs and enlarging the scope of reach are the main factors which advertisers and marketers take care. Online advertising costs are less than television, printed magazines, or newspapers and also brings greater rates of return. This return can easily be monitored and measured by organizations thanks to applications like web analytics, Google analytics, etc., and also activities of customers can be recorded. From demographic details, to personal preferences of customers can be

reviewed in real-time and relevant advertisements can be shared with those audience according to their requirements and demands in a part of personalization. (Hudson et al., 2016)

Customers can share their both positive and negative feedbacks about the products or services thanks to continuous interaction between advertisers. Social media platforms are the most used by customers and preferred by advertisers with a combination of influencer marketing and content marketing. Word-of-mouth (WOM) communications, influencers, and peers have the ability to create massive impact on decisions of customers. (Shyu et al., 2015) For those reasons, marketers and advertisers have been focused on social media ads for their products and services and agreements with channels like YouTube, Facebook, and Instagram have been signed.

With the innovations in technology, marketers also try find alternative ways for reaching out the customers. Augmented Reality (AR) and Virtual Reality (VR) terms are brand new methods when compared with other digital marketing tools, and have been started to be used in advertising and marketing campaigns in order to attract and interact with continuously changed customers, especially with social media generations.

AR and VR allows marketers and advertisers to reach out the audience in a totally new way. Since AR and VR usage in advertising creates an immersive medium, unlike digital images or banners, customers find this type of advertising interactive and can form an emotional connection. In addition, long term customer relationship, strong customer engagement, and adding value to customer experience can be fulfilled thanks to those advertising models. Customers can catch the opportunity of directly involving in the marketing communication process and also with the product and services. This marketing type is named as experiential marketing, also known as engagement marketing, and customers rather than just being a message receiver, can create one to one interactions with brands. (Luo et.al, 2011)

2.5. AUGMENTED REALITY

The word “augment” has a meaning of increasing or enhancing the value or size of something by adding something else to it. Therefore, when a term called **Augmented Reality**- also known as **AR**- comes in mind, it should be understood that it refers to the integration of computer-generated information with one’s current environment in real time. For enhancing the existing view of a user, most commonly visual (images) and auditory (sounds) modalities are imposed by this digital technology which is one of the trend topics of today’s marketing research. (Haller, Billingham, and Thomas 2006)

Augmented reality uses the existing environment and integrates the digital information with that environment in a real time. However, in virtual reality (VR) totally artificial environment is generated. Currently VR technology in general uses virtual reality headsets for generating artificial but realistic images and sounds in order to make the users feel that artificial medium. This technology is commonly used in gaming industry but still there are some concerns like disorientation in purely virtual environment, balancing issues of the users etc. (Korolov, 2014), (Huang and Liao, 2015)

Augmented reality usage in marketing and advertising has been focused by organizations due to its various advantages. One of the biggest advantage can be said as, allowing the customers for forming emotional connection. Customers who are faced with AR integrated advertisements, feel like they are playing a game, they feel the fun, and due to the experience they live, they can easily recall the products or services, and also the advertising itself. (Gleb, 2017)

Augmented reality advertisements are not only being used by advertisers for promoting products and services, but also for increasing the sales volume in some cases. Since augmented reality allows customers to observe natural environment with the digital information integration, in real-time, customers for example who do not have enough time for trying the items like shoes, clothes, watches, sunglasses etc. will be closer to purchase stage.

There are many augmented reality based technology applications exist and used by marketers as an effective digital marketing tool mainly in order to enhance the environment for better and richer user experience. Each of those various types have different purposes and usage areas as briefly mentioned in the following.

Marker-based AR, is applied for recognizing a well-designed marker like quick response codes (abbreviated as QR) or any kind of two-dimensional visual marker, by using a preprocessed camera. First, the marker is aimed to be recognized and then, calculation of the position and orientation is processed. The more detailed and highly textured images are tried to be recognized, the better results for detection is gained. (Sanni Siltanen, 2012). Marker based Augmented Reality has been used in various study areas like manufacturing, entertainment, medicine, advertising, education, medical, and even in military. (Anuroop Katiyar et al., 2015)

The study that is conducted by Lucia Pombo and Margarida Morais Marques in 2017, revealed that market based Augmented Reality can be used for mobile learning in an urban park. Specifically designed markers are located the various places of the park and by detecting those markers, the AR content is generated for providing the users an information about botanical species. With this application, visitors of the park are able to catch an unforgettable learning opportunity.

Marker-less AR, also named as location/position based, is aimed to be used for reading data based on the location of the user. GPS applications can be given as a perfect example for this AR type's usage area, and since it does not require marker detection or preknowledge of the environment of a user, it is seen as more interactive and easy to use.(Carmigniani et al., 2010)

With the innovations in technology, markerless AR applications have been started to used in areas like games, advertising, and product visualization. Google's Project Tango platform was created for environment recognition and indoor navigation by using the sensors on devices without the need for using GPS or any other signals. However, it has just been heard that Google's sponsorship to Tango Project is over due to the limitations of sensor-dependency. Right after Google's decision, Apple announced that there is new technology – namely ARKit – which does not require any sensor on devices, so can broadly be used, and be a game-changer in this AR based technology field. (Fetters, 2014)

The Skyview application, and games like Pokemon Go can also be mentioned as the examples for markerless Augmented Reality, since they are designed to show the real environment around the user by using the location information of the user and the location of the objects seen.(Tim Fisher, 2017)

Superimposition based AR, can be described as the evolved version of marker-based AR, in which a desired object is aimed to be detected and be replaced with the original view of that object. In that type of Augmented Reality, image recognition plays an important role and one of the most known example is IKEA's catalogue in which users can select the furnitures that they want to buy and be able to view them in desired places before the purchase action.

Based on the research that IKEA performed, it has been seen that approximately 15% of the customers are facing with a problem of buying the wrong size of furnitures for the desired location of rooms. (Paul Ridden,2013) Thanks to the application that is designed with Augmented Reality, customers now can view the 3D augmented versions of the furnitures and can place them in the desired locations, by using an automatic scale system of the furniture and the room with 98% accuracy. (Seb Joseph, 2017, Ana Javornik, 2016)

Projection based AR, is the another type of Augmented Reality that has been widely used. It uses the projection of computer-generated image on the desired three-dimensional objects for enhancing the view in real world. An artifical light is aimed to be projected to 3D objects or places for enhancing the real-world view by providing an interactive content to viewers.

This technique is not new and has been used in Haunted Mansion at Disney Park by providing stunning dynamic environment to the guests which might be hard by using traditional lighting. Instead of letting single-user experience like typical Augmented Reality applications do, Projection based AR creates an augmented environment that can be view by multiple people. Moreover, since the 3D object and the projected light have less motion when compared with the other types of AR, issues related with latency are automatically decreased in number. However, if mobile projectors are used, light density problems might be faced with. (Liljegren & Foster, 1990, Mark Mine, et al. 2012)

Another important version of projection based AR can be said as **Holograms**, in which desired objects can be projected to real spaces and in real time, outside of the screen. (Fei, Kryze & Melle,2012) A hologram reveals an object in a three dimensional medium by using a light of fixed wavelength coming from a light source, the light is scattered in a wavefield and producing the lighthfield of the original object. (Schnars et al., 2005)

As Yim and Chu (2017) investigated the augmented reality effectiveness in online product presentations, interactivity has been seen as the most crucial component for AR technology adoption. For this reason, many researchers believe that with the salient and distinctive experience provided by augmented reality technology, customers tend to be affected in a positive way and eventually their purchase intentions and actual buying behaviors will be under control by the advertisers.

2.6. THEORETICAL BACKGROUND

With the rise of technological era and needs and demands of customers have been changed a lot. Customers have a strong demand to face with new products and services, and new ideas that have carry differencies in terms of quality when compared with the existing forms, therefore, marketers and advertisers have been started to focus on making innovations.

2.6.1. Diffusion of Innovation Theory

According to the theory namely *“Diffusion of Innovation”* that was proposed by Rogers in 1962, there is a process starting with the initial introduction and ending with the purchase and use, when a new product or services, and new ideas proposed. Rogers stated that there are many factors that influence the spreading of a new idea and those can be listed as; the innovation itself, channels used for communication, time, media, organizational and governmental rules, social relationships, and opinion leaders.

Roger also made a categorization based on the degree and timing of adoption of a new idea, starting with the innovators, continues with the early adopters, early majority, late majority, and ending with laggards.

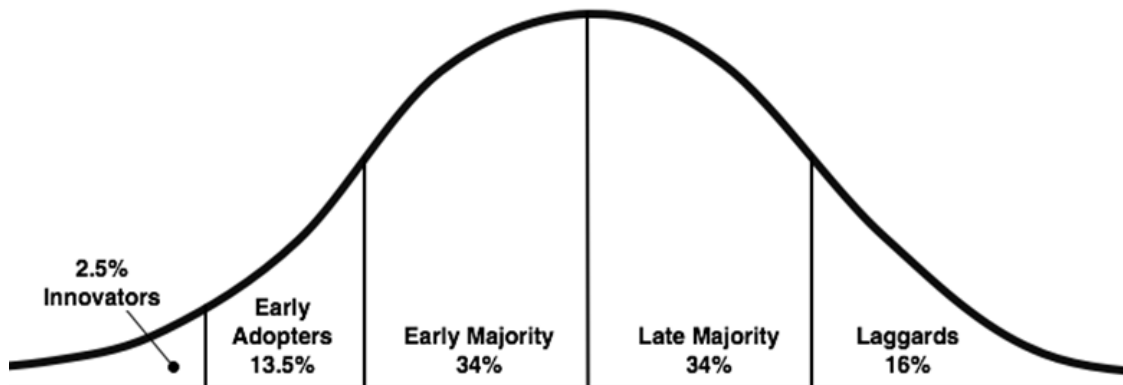


Figure 1. Diffusion of Innovation Model from Rogers (2003)

Innovators are the ones who like to try new products or services as first comers. Those type of people are considered as risk-takers (Kaasinen, 2005) and are open to change. They are the ones who initially gather the information about the technology, make necessary evaluations, and decide whether the innovation or innovative idea is worth to adopt by followers. (Rogers, 2003) Since they have high social and financial status and in close contact with other innovators, their risk tolerance is higher when compared with other groups. (Sahin, 2006)

Early adopters are the first following after innovators, and this group has the highest degree of opinion leadership among all others. Their opinions about the innovations are crucial for the social group and their evaluations determine the fate of the innovation since these group is considered as the advisors and can effect further adoption rates. When compared with innovators, early adopters have limits in the social system (Sahin, 2006) and they have a strong desire to keep their position in the system. (Kaasinen, 2005) Since those people are the ones who trigger others decisions and attitudes, success of the innovation is directly dependent to this group. (Light, 1998) In addition, response gathered from early adopters is vital for innovators since they will have a chance to reinvent the innovation accordingly and fulfill the needs and demands of other groups. (Robinson, 2009)

Early majority includes users who need some time for innovation adoption, however they do not want to be the last group. They choose to rely on the information coming from the early adopters for using the new technology. People who are considered as early majority have a demand to face with and intention to use new technology after they see the necessary proof of benefits. According to Moore (1991)'s research, the main factor that determines the success or failure of an innovation is the gap between early adopters and early majority.

Late majority and Laggards are composed of people who adopts a new idea after many of the individuals have been already adopted, they feel sceptic about the new ideas. Those people are strongly stick to traditions and so usually do not want to see new idea generations. (Meyer, 2004; Strang et al., 1998; Ghoshal et al., 1988) They have lower social, educational, and income status when compared with former groups and therefore, they are sceptical and cautious. (Gouws and George, 2011) For adopting a new technology those groups need to get directions from former groups and especially laggards might resist to innovations due to their own restrictions like budget and time. (Tahir, 2015)

There are innovation characteristics which determine the success of an innovation, and evaluated by potential adopters. Those characteristics can be listed as; relative advantage of the innovation when compared with current tools and methods, compatibility with existing values and former experiences of individuals, complexity showing the degree of difficulty in understanding and usage, observability, and trial-ability. (Rogers, 1995; Venkatraman and Price, 1990) Besides characteristics of people, those characteristics of innovation have a direct influential power on adoption rates in the society. (O'Connor, 2007)

Rogers (2003) stated in one of his researches that, innovation diffusion process is actually a process in which uncertainty is reduced. The characteristics of an innovation mentioned, help to reduce the uncertainty about the new technology and innovation. (Shoemaker and Rogers, 1971)

Relative advantage of an innovation over the current options, brings success since users tend to adopt a new products/services or a new idea when they see its supremacy. If a user sees that a new innovation is a better option when compared with the current one, adoption of that new innovation is easier. When initial adoption of the new innovation is succeeded, and can be diffused to further groups in the social system. Relative advantage of an innovation can be due to its low cost, profitability, extra rewards, time and effort saving features, ease of use and usefulness (Francesco, 2012)

Besides providing relative advantage to users, an innovation should also be compatible with needs and demands of the people. The new product/service or new idea should not be something totally different with the previous experiences of users. (Kaasinen, 2005) If an idea or product/service is somehow related with the former idea or product/service, its adoption is more likely (Francesco, 2012) However, innovators should also keep in mind that if the innovation has lots of common features with the existing one, users might think adoption to new technology will not worth and even the idea or product/service will not be considered as an innovation.

Innovation that is presented to people for the purpose of adoption, should have relative advantage over current one, should be compatible with the current one to some extent, and also it should be easy to understand and easy to use. (Roger, 2003) If the innovation is complex it will possibly have a direct negative impact on the users' adoption process and will decrease the adoption rates. Being completely simple is not an expected feature of a new technology, however the more closeness to simple, the more adoption rates. (Barnett, 1953)

All mentioned characteristics of an innovation is crucial for the success of an innovation, however if there is no strong communication provided, whole campaign might ended up with a failure. Features, advantages, and adopter experience of an innovation should be well-communicated to users in order to increase the adoption rates in the social system. Demonstration is an important construct of an innovation, which feeds the observability and communicability of an innovation (Moore and Benbasat, 1991) and innovators make their related plans before the launch of new products/services and new ideas. In addition, there is also visibility part, in which all users see the usage of the related innovation by other users. This provides the sense of assurance for using the innovation, and also increases the rate of adoption for potential users. (Benham and Raymond, 1996)

Sense of assurance is important for all people and for some people feedbacks from users are not sufficient for adopting the innovation. Triability, lets users to try new products/services before the adoption process. For instance, trying new iPhone launch in Apple stores is offered by Apple and by this way users can directly face with the features of new product on their own. After the experience, users evaluate pros and cons, and can decide for adoption or rejection of the innovation.

According to Barnett (1979), adoption of innovation does not occur immediately, people will give their decision after a series of thinking and evaluating process. The decision process mentioned, has also been examined in the research conducted by Roger and Shoemaker (1971), and Rogers and Beal (1957). Mainly there are five stages in decision making process of the users;

1. The Awareness Stage, at which people heard about the innovation through communication channels, or WOM.
2. The Interest Stage, at which people receive relevant information about the innovation.
3. The Evaluation Stage, at which people evaluate the pros and cons of the innovation when compared with the current one, and try to understand whether it is worth to adopt, or not.
4. The Trial Stage, at which people try to assure the information received, by directly interacting with the innovative product or service.
5. The Adoption Stage, at which decision about adoption or rejection of an innovation is given.

2.6.2. Technology Acceptance Model (TAM) Theory

From a similar point of view, a model called “*Technology Acceptance Model*” (TAM), was formed by Davis, Bagozzi and Warshaw in 1989, for examining how respondents come to accept and use the technology based innovations. (Hausman and Siepke, 2009) The main two factors that affect the decisions of the respondents are perceived usefulness and perceived ease of use. During the adaptation process, audience wants to learn the benefits of the innovation, they want to see the whether the enhancement is needed and satisfy their needs and demands or not. In addition, they want to use a system that is free from effort and time. (Davis, 1989) As a result, their attitudes, behaviors and intentions towards the innovation shape accordingly.

The Technology Acceptance Model (TAM) has been defined as the most effective and applied theory of information systems (Lee et al., 2003) and this model is mainly composed of four components; perceived ease of use, perceived usefulness, attitude toward using, and behavioral intention to use. (Davis, 1986, 1989) During time, the basic TAM model has been extended with the addition of external variables and their relationship with perceived usefulness and perceived ease of use has been studied by many researchers. (Pantano, and Di Pietro, 2012)

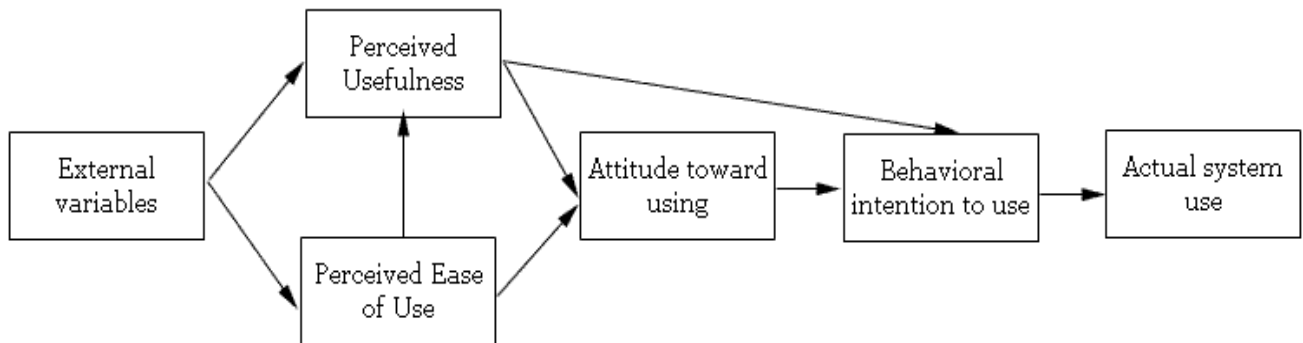


Figure 2. Technology Acceptance Model from Davis, Bagozzi and Warshaw (1989)

Theory of Technology Acceptance Model (TAM) is originated from Fishbein and Ajzen's (1967) Theory of Reasoned Action (TRA) in the literature. Theory of Reasoned Action (TRA) aims to understand the voluntary behavior of people and to examine the relationship between attitudes and behaviors with actions. According to TRA, intention of people to perform a behavior, determines the actual behavior. Behavioral intention is determined as an outcome of attitudes and subjective norms. (Glanz et al., 2015) Subjective norm is a perception of people about a particular behavior, that is affected by significant others like peers, friends, parents etc. Influential weight of attitude toward the behavior and subjective norms on behavioral intention is not equal and can be change depending on the people and the case. (Hale et al., 2002)

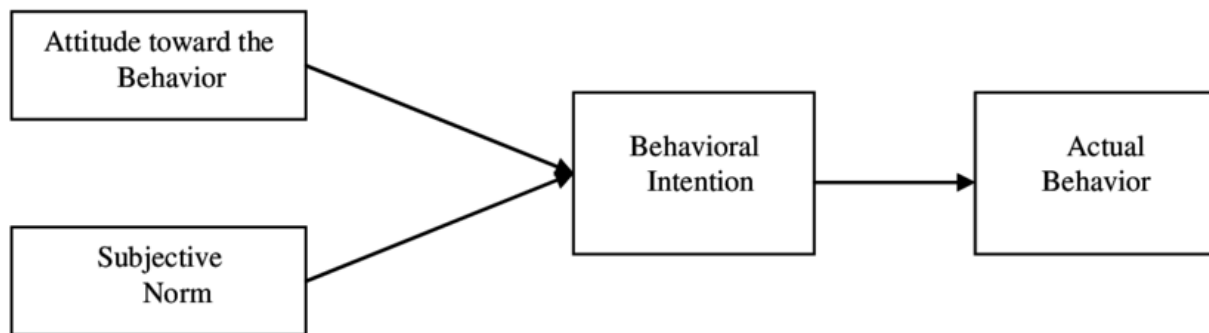


Figure 3. Theory of Reasoned Action Model from Fishbein and Ajzen (1967)

In 1985, Ajzen has extended the TRA by adding "Perceived Behavioral Control" into the model in order to examine its relationship with behavioral intention of people. This new model has been named as "Theory of Planned Behavior", abbreviated as TPB, and as a counter argument it states that behavioral intention does not always end up with the actual behavior due to some circumstances in which there is volitional control of people effecting the behavior. By including perceived behavioral control component into TRA model, TPB model covers even non-volitional behaviors and their interaction with behavioral intention and actual behavior. (Ajzen, 1991)

For understanding the relationships of attitudes, behavioral intentions and behaviors, those models have been applying in many areas like healthcare, advertising, sports, public relations etc.

According to the research in augmented reality integrated applications, Olsson et al., 2003 proposed that, perceived informativeness and perceived enjoyment are two crucial factors, and this is also in line with the research done for investigating the attitudes of customers on mobile device or website usage. (Hausman and Siepke, 2009; Pantano and Naccarato, 2010) Moreover, those two factors are also in a positive relationship with perceived usefulness of an innovation and eventually all together effect the intention to use or to purchase. (Chen and Tan, 2004)

There are also another revised TAM models that have been examined in research by Seddon and Kiew (1994), and Seddon (1995) in which the effect of quality of a product or a service on perceived usefulness and eventually on the intention to reuse of augmented reality. In the related research, system quality, information quality, and service quality have been designed as independent variables, where usefulness is the mediator, and AR reuse intention is the dependent variable. All three quality constructs have a relation with ease of use (Doll and Torkzadeh, 1988; Rai, Lang and Welker, 2002) which can be defined as the degree of time and effort for using a particular product or a service. (Venkatesh and Davis, 2000) On the other hand, usefulness attribute of a product or a service is about the extent to which users believe that using the system will satisfy needs and demands of them, provides additional benefits by enhancing their performance. (Venkatesh and Davis, 2000) Ease of use feeds the usefulness attribute of a product or a service however, the influence of usefulness is higher than its ease of use on intention to use or intention to purchase of users. (Shih, 2004)

As seen in another revised model of TAM, which is a subject of a research that was conducted by Davis, Bagozzi and Warshaw, (1992) and Heijden (2004), enjoyment construct was added to the model as an addition to ease of use and usefulness, in order to examine the influence of enjoyment on adoption of new technology. As a result of this research it has been seen that, perceived enjoyment value of virtual try-on technology has been affected by the ease of use construct and also directly affects the attitude toward using virtual try-on technology by users. (Kim and Forsythe, 2008) In addition, by combining with Diffusion of Innovation theory, technological anxiety, and innovativeness constructs have been added to the TAM model as mediators, and based on the conclusion of the research, it was seen that both of two have a strong influential power on intention to use of virtual try-on technology. (Kim and Forsythe, 2008)

2.7. RESEARCH CONSTRUCTS

In this research, effect of augmented reality advertising on purchase intention is aimed to be investigated. In order to understand the effect of augmented reality implemented advertisement on customer's purchase intention, some specific variables have been chosen. By taking Diffusion of Innovation and TAM theories as reference, research model was designed and hypotheses were accordingly formed.

2.7.1. The Role of Entertainment

Studies about technology aided advertisements have been revealed that likeable advertising has a positive impact on the behaviors of customers. (Mitchell and Olson, 1981; Shimp, 1981; Ducoffe, 1996) Entertainment value of an advertisement lies in the ability of its fulfillment of audience's needs for enjoyment, excitement, pleasing, and fun to use. (Ducoffe, 1996; McQuail, 1983)

Providing entertainment in advertisements is generally believed as an effective way of catching the attention of target audience but it might not be sufficient if the persuasion of customers for purchasing the related product and services. Research by Yang and Smith, in 2009 have revealed that creative entertainment has a positive impact on purchase intentions by decreasing the resistance levels of customers' for being persuaded. According to Tellis, 2004 lack of interest and avoidance shown to advertising are the major reasons for ineffective advertising. Therefore, by using well-designed entertainment figures in ads provides a great advantage to advertisers by skipping this initial stage.

As researches suggest entertainment usage in advertising generally creates positive impact on the audience, still the amount of entertainment is a parameter that advertisers and marketers need to keep in mind. Woltman Elpers et al., 2003 defined the amount of entertainment usage as "entertaining, warm, and playful material that makes the commercial pleasant to watch" whereas, Aaker and Bruzzone, in 1981 defined the entertainment in ads as lively, amusing, imaginative and clever content. In a common belief, entertainment factor of an advertising effects the emotions of the target audience even if they have no intention to actualize the purchase of the related product or service.

Besides catching the initial attention of the audience, making it sustainable is also a crucial parameter for advertisers. According to Chandon et al., 2007, sustained attention has a positive impact on persuasion of purchasing. (Teixeira et al., 2013)

With the change of generations, influencing and persuading the audience has been getting harder. Needs and demands of the new generations have been evolved and therefore advertisers and marketers have to find new ways for transferring their messages. A new term called ‘advertainment’ has been one of the trend topics of today’s advertising business. It can be defined as the integration of advertising and entertainment in which advertisers seek to create a joyful environment for customers so that their advertisements can be viewed and strong relationships with the audience can be formed.

Researches revealed that, when the audience see an advertisement with entertainment figures, feel the sense of humor in the advertising, or when they feel pleasure during the advertising, the audience do not think that there is a product or service that is tried to be sold to them. They show care to those type of advertisement and will become more likely to hear about those products and services, and even their purchase intention easily turned to be positive. To illustrate, Lee and Chung, 2007 investigated the effect of consumer reaction to virtual reality shopping malls and showed that due to enjoyment factor visit and likeability when compared with traditional shopping malls are seen as higher. In addition, the research by Ducoffe, in 1996 revealed that enjoyment has a positive impact on the advertisement value on the web by evaluating pleasure, excitement, entertainment factors.

Virtual and Augmented reality researchers have found that when the audience face with an advertisement, they immerse themselves in what they are viewing and they can taste the feel of pleasure and avoiding the senses of real-world, thus they catch a chance for experiencing the enjoyment. (Daugherty, Li, and Biocca 2005; Lombard and Ditton 1997; Vorderer, Klimmt, and Ritterfeld 2004)

2.7.2. The Role of Word-of-Mouth (WOM)

Word of mouth, abbreviated as WOM, can be described as the transfer of an information from person to person by using oral communication. Like it can be seen in almost every fields of life, people like to share their thoughts, evaluations, and decisions with their surroundings. Therefore, a definition called ‘‘WOM Marketing’’ is defined as a communication tool where the customers share their experiences about the products or services that they purchased with their friends and families. (Thorne, 2008)

The power of word-of-mouth has been realized by marketers and advertisers since, the reason that lies behind the sharing of experiences is emotions. According to many researches in psychology, people actualize the purchase mainly due to emotional reasons. (Kathryn Aragon, 2013) For advertisers it is a golden opportunity when customers share their positive experiences with a product or a service that they purchase since, this an automatic additional advertising without any payment. The motive lies behind can be explained as the need for appreciation, because a customer puts his/her reputation on the line when they make related recommendation.

Advertisers pay a high attention for those type of natural ambassadors and try to make the customers live spectacular experience about the related product or services since, WOM is triggered under those conditions. According to a research that is conducted by Nielsen in 2015, 92% of consumers trust the recommendations from friends and family. Therefore, organizations need to focus on gaining the trust and interest of the customers if they want to see the positive effects of word of mouth advertising. (Thorne, 2008; Ferguson 2008)

As formerly evaluated, one of the main factors that influence the experience of customers about the products and services, is entertainment. Customers who feel the pleasure, excitement, and the enjoyment in the advertisement, are more likely to actualize the purchase and also have the ability to effect the decisions and behaviors of customers that they shared their thoughts with.

For sharing the expressions about an advertisement with friends and families, it is not necessary for a product or a service having distinctive features. The way of an advertisement might also provide the similar effect to advertisers. When compared with traditional advertising, AR integrated advertisements with its immersive and interesting functions, have higher chance to trigger word of mouth among the audience. (Bulearca et al., 2010)

2.7.3. The Role of Informativeness

Customers always seek to receive as much information as they can get in a limited time, when they are facing with an advertisement in any channel. For this reason, marketers should accordingly form their marketing messages and avoid miscommunication, or unclear communication with the audience. Furthermore, even the message is well-designed if the advertisement of relevant product or services does not have the necessary components, whole campaign will most probably be a ruined.

An ideal advertisement should show to whom the relevant product or a service is being advertised, what are the benefits and key features of the product or a service, what is the difference or are there any advantages over the competitive ones, and if relevant, where people can buy that product or a service. (Aaker Batra, and Mayers, 1992)

According to Yoo and Kim, 2007, informativeness property of an advertisement has a direct impact on the ad value. It has been reported that, the ability to provide information, is seen as the main reason for the approval of an advertising by the target audience. (Bauer and Greyser, 1968) In several research, the value of advertising has been focused on the information (Nelson, 1970; 1974; Ratchford, 1980; Stigler, 1961), the content of an information (Resnik and Stern, 1977; Stern, Krugman, and Resnik, 1981), or how informative advertising is perceived by customers (Aaker and Norris, 1982; King et al., 1987; Larkin, 1979; Soley and Reid, 1983).

As mentioned, the aim of advertising is not just capturing the initial attention of the audience, but also creating long term brand awareness, persuading them to actualize the purchase is tried to be achieved by advertisers and marketers. Customers want to receive complete, detailed, clear, and easily understandable information about the product or service that is being advertised. (Ertekin and Pelton, 2014). Soley et al., in 2012 showed that, instead of the quantity of the information, type and the content of the information is the main determinant of perceived informativeness. According to the Optimum Stimulation Level theory, people tend to gain a certain degree of stimulation and collect the information with an intrinsic motivation (Hoffman, 1996), therefore advertisers should focus on the content of the information rather than focusing on the quantity of the information in advertisements.

Like in traditional advertising, for digital advertising tools providing informative content is an important topic. Digital platforms have been seen by the majority of respondents as the timeless, quickly-reachable information source (Shavitt, 1999), customers can reach the relevant information of the product or a service that is tried to be advertised in any time, repetitively, and without wasting time, just one click.

In traditional advertisement, advertisers need to obey some regulations, so they need to make their claims about their products or services very carefully. In addition, due to the limited time, limited space, and limited money an information that is demanded to be shared with the audience might be shortened, or adjusted accordingly. On the other hand, augmented reality integrated advertisements do not have limits like mentioned, and so desired information with an immersive environment can be transferred to the target audience.

2.7.4. The Role of Memorability

Although informativeness of an advertisement is crucial for both the audience and the advertisers, it might not be enough for the overall success of the advertisement. The advertisement should also be memorable so that the relationship between the audience and the advertisement can be sustainable.

Advertisers in order to make their advertisement and products or services memorable, mainly follow strategies like using repetition technique, catchy jingles, or slogans. Usage of most-loved celebrities, most-loved songs that are converted to a jingle of an advertisement, and effective slogans have a huge potential for catching the attention of the customers and also make the advertisements memorable. (Wright, 2000) Triggering the emotions in advertisements also has a positive impact on both recall of the advertisement, and the products or services with a message. (Thorson et al., 1990) Researches revealed that mood of the audience might be one of the predictive factors of the memorability of an advertisement. (Kloss, 2003) In order to positively affect the mood of the audience, humor, entertainment, and novelty have been used by many advertisers however the levels of those ingredients also should be well-adjusted in order not to miss the main purpose. (Kellaris and Cline, 2007)

Following different advertisement channels have also an ability of effect the memorability of an advertisement. In traditional channels like television, radio, printed magazines, and

newspapers there is only one way interaction –which is transfer of the message – with the audience. On the other hand, in digital channels the interaction is two-sided, meaning the audience can give their feedbacks, talk about the products and services, discuss about the advertisement, even can share if they really liked. (Jacoby, 2011) According to Thorson and his friends research in 1990, it has been seen that the level of involvement with the product (or the advertisement) has a strong positive effect on remembering the advertisement. Like almost all digital advertising tools do, augmented reality integrated advertisements creates an environment in which the audience can feel the real-time involvement with the advertisement.

However, when compared with the traditional advertisements, augmented reality integrated advertisements are expected to have a lower retention rates about the product and service features since, there are some possible disadvantages of providing the audience to live an immersive experience. Since the audience might mainly focus on the interesting environment, they might lose their focus on the products or services and the message that is tried to be given. (Connolly, 2016) Therefore, advertisers should not only focus on the memorability of their advertisements, but also the memorability of the features of their products or services, or their marketing messages. Because, memorability of an advertisement might be evaluated as a success, but if the audience do not remember the features and differences of the product or the service, their purchase intention might not be positive.

2.7.5. The Role of Irritation

The main and common purpose of all advertisers is creating successful advertisements through which the sales of an organization increases. While aiming that, at first the attention of target audience is tried to be captured, awareness about the products or services is ensured, and as a result of the experience that they live, actualization of purchase is secured. In an ideal environment, the experience that customers live during the ad-viewing process aimed to be positive, but this might not be the case in real-world.

According to the research by Bauer and Greyser in 1968, the main reason why customers criticize advertising, is evaluated as the irritation that they feel due to the annoyance of the advertisement. This irritation feeling is dangerous for the advertisers because there has been investigated that there is a strong correlation between the irritation and advertising value (Ducoffe, 1996) and also

between the irritation and the advertising effectiveness (Aaker and Bruzzone, 1985) When the audience find irritating figures in the advertisement their ability to process, pay attention, and enjoy is being negatively affected. (Yim, Drumwright, and Cicchirillo, 2012) Furthermore, if the advertisement is evaluated as irritating by the customers, they also feel irritated about the marketing message that is tried to be shared and about the product or a service itself. (Stewart and Pavlou, 2002)

People do not hate the advertisements, they hate bad advertisements according to the research by Winsauer (2016). The audience do not want to see overly manipulative, insistent, and insulting advertisements in any of the channels. (Ducoffe, 1996) When compared with the traditional channel, irritation levels is getting increased in the digital advertising channels. With the changing dynamics, customers want to take the control over the advertisement, they want to have the opportunity of acceptance or ignorance when needed. (Carroll, Barnes, Scornavacca and Fletcher, 2007)

In traditional advertisements, the reasons why customers feel irritation might be the about the jingle that is used, unlovable figures or celebrities, repetitiveness of the advertisement and so on. Whereas, in online advertisements pop-ups, misleading banners, automatically played videos, unwanted messagings, or e-mails (mostly spams) have been seen as the main reasons for the irritation of the advertisement. (Altuna and Konuk, 2009) Moreover, ads in social media platforms by using celebrities mostly have a negative effect on the audience due to lack of trust, customers think that those celebrities actually do not use the products or services that they recommend and the reason lies behind those advertisements is earning money.

When new technology based advertisements -like AR and VR integrated ones- have been evaluated, main reasons have been seen as difficulties of acceptance and usage of the technology for viewing the advertisements, and time that is consumed. To illustrate, Watson, McCarthy, and Rowley (2013) revealed through their research that, lack of knowledge about the benefits and usage complexity of QR codes, makes QR integrated advertisements inefficient and the audience do not pay attention about the product or the service that is demanded to be advertised.

For some advertisers, leading to an irritation through the advertisement is also an important parameter. They consider themselves lucky in some way since they thought that it is better to

getting a reaction, even though it is a negative one, when compared with the advertisement that trigger no reaction at all. Through the irritation that customers feel, word of mouth advertising can still be provided and awareness about the brand will eventually be increased. (Pilcher, 2017)

Nevertheless, for creating successful advertising campaign and making it sustainable, long-term positive relationships should be constituted with the audience. For this reason, advertisers need to eliminate the irritative figures in their advertisements in various ways and aim to influence purchase behavior of the customers and eventually to sell their products or services.

2.7.6. The Role of Time Effort

In a today's dynamic and continuously changing environment, most of the people are complaining for having limited time for everything in their lives. No one has time for everything, and deciding what, where, and how they will spare their time, is seen as the crucial point. For this reason, people have started to make strategies on allocating their time, from where they will gain the highest benefit and pleasure. (Saunders, 2013)

The value of an advertisement and attitude toward the advertisement have been influenced by various factors like mentioned, however two main motives called hedonic and utilitarian have been widely investigated. (Babin, Darden, and Griffin, 1994) The respondents mainly ask the question of "*What is in it for me ?*" and have a strong demand of feeling the fun when they view the advertisement.

Independent from the communication channel that they have been exposed to, the respondents are required to spare their time in order to view and process the information received about the advertisement. The audience do not want to waste their time with an irrelevant or badly-designed advertisements, they have a strong demand to face with advertisements that are worth to view. For example, if people are viewing traditional advertisement types, they do not want to face with an advertisement with full of complex messages and complicated designs. They just want to look and understand what is tried to be presented, what are the features of the product or service that is mentioned in the advertisement.

However, time-effort is an important and more relevant topic for technology implemented advertisements since, those ads usually require user interaction and so need some time for

viewing. Augmented reality advertisements, independent of the type of AR technology used, includes some additional steps like reading the QR code or detecting the hidden image/logo in the advertisement by using the camera of a mobile device, and therefore people need to show some effort for viewing those ads. (Yaoyuneyong et al., 2016) Therefore, some people find those type of advertisements as time-wasting and they do not want to spare their time for viewing. Advertisers need to keep in mind those disadvantages and should accordingly design their advertisements.

2.7.7. The Role of Ease of Use

With the increase in penetration levels of augmented and virtual reality into advertisements, customers have been facing with different technologies in which high interaction with the advertising method, or directly with the products or services have been seen.

Target audience determination is evaluated as the initial step that marketers and advertisers follow in order to make their campaigns successful and so, can positively influence the behaviors of the customers that they want to reach. Although traditional advertising lets advertisers to reach wider range of audience due to its mass reach capability, digital advertising – especially AR and VR integrated advertising mainly focuses on new generations who born into the technology.

Since AR and VR based ads creates high interaction with the audience, usability, also can be said as the ease of use, of the materials for viewing the advertisements is a critical point that all advertisers should keep in mind. According to Davis (1989), customers want to interact with a system that does not need showing extra effort to use. Dabholkar (1994), Davis et al. (1992), and Heijden (2000) confirmed in their research that ease of use is a crucial factor for predicting the attitudes and behaviors of customers toward technology based ads. In addition, based on Diffusion of Innovation model, Rogers (1995) stated that one of the characteristics of innovation as complexity, which decreases the willingness levels to adoption to a new system. Complexity of an advertisement, which can be defined as the antithesis of usability (Agarwal and Prasad, 1997), has been investigated for digital -mainly internet- ads for a long time and results show that, ease of use has a positive effect on attitudes and intentions of Internet users. (Szajna, 1996; Gefen and Straub, 1997). By taking this research as a reference, another research has been conducted on Virtual Try-on technology for online apparel shopping. Kim and Forsythe (2008)

stated that there is a strong relationship between the usability of Virtual Try-on technology and the purchase intention of the respondents. The ones that find the usage of new technology as easy, tend to pay more attention to the ad, and have higher possibility in actualizing the purchase as a result of a satisfying experience. (Taylor and Baker, 1994; Oliver, 1980)

2.7.8. Purchase Intention

In order to understand the consumer behavior and predict the future of the sales of an organization or a company, most researchers aim to examine the influence of purchase intention on purchase actualization, and also to examine the factors that effect the purchase intention. (Jamieson and Bass, 1989)

In some cases, concept or product tests are used in order to measure the demand of customers for the tested product or services by asking questions like *‘‘Do you have an intention to purchase this product ?’’*, or by using likert scale ranging from 1=Definitely will not buy to 5=Definitely will buy. (Morwitz, 2012)

Purchase intention construct has also been widely used in advertisement studies in order to understand the thoughts of target audience, and predict the sales of product or service. According to researches, perceived relevance of interest, needs, and demands have a strong influence on the intentions of respondents to purchase of related product/service. (Zaichkowsky, 1985) Many studies state that constructs like ease of use, usefulness, and enjoyment have also strong influence on the purchase intention of users since those constructs are mainly seen in interactive advertisements like AR or VR integrated ads, it can also be stated that technology implemented advertisements result in stonger purchase intentions. (Li, Daugherty and Biocca, 2002; Klein, 2003; Schlosser, 2003). On the other hand, studies revealed that technology anxiety, irritation, and lack of quality have negative effects on purchase intention. (Kim and Hyun, 2016; Kim and Forsythe, 2008)

Furthermore, trust is considered as another imporant construct that has an effect on intention to purchase of users. Especially with the increase of digitalization and technology era, users of e-commerce channels have been facing with lots of trust issues and thus, their purchase intention decreases. (Kwahk, Ge and Park, 2012)

The most known purchase intention model was created by Engel et al. (1995) in which five stages of purchasing process are listed;

1. Recognition of the problem,
2. Searching information,
3. Evaluating the alternatives,
4. Decision making,
5. Post-purchase behavior.

According to this model, customers at first define their requirements and demands. After they identify what they need or want to buy, customers start to search for an information from both marketing or non-marketing sources. (Prasad and Jha, 2014) As a next step, in order to make comparison and demand for finding the best alternative in terms of cost, quality etc., customers start to evaluate alternatives. After all stages have been completed, customers are ready for giving their final decision about purchasing the product or the service, and after the usage or purchase of the related product or service, they make post-purchase evaluation in which they evaluate the worth of actualization of purchase. (Shahid et al., 2017)

Purchase intention can be defined as a situation, where customers tend to purchase a related product or service in certain condition (Morinez et al., 2007) In a brand preference point of view, Shah et al. (2012) defined purchase intention as a decision making process in which reason to purchase a specific brand by customer is studied. Creating a successful brand image on customers point of view, plays an important role in ensuring brand awareness and brand loyalty which eventually has positive influence on intention to purchase and even post-purchase of related products or services. (Chi et al., 2008) Studies state that people tend to pay more money if they are loyal to a specific brand against competitive products (Eric's et al., 2012; Molla and Licker, 2001) In addition, it has been revealed that there is a strong relationship between brand equity and purchase intention of customers (Irshad, 2012; Azizi and Ajini, 2012)

3. METHODOLOGY

In this part, methodology of the research is prepared by mentioning on the research objective, research design, questionnaire design, measurement of independent and dependent variables, and sampling with data collection.

3.1. RESEARCH OBJECTIVE AND DESIGN

3.1.1. Research Objective

The main purpose of this study is to evaluate and determine the variables that have an effect on intention to purchase for augmented reality implemented advertisements. While doing this research, as a comparison, one of the traditional advertisement methods – print magazine – has also been used.

3.1.2. Research Design

Implementation of augmented reality to advertisements can be considered as a new concept for the business. Companies and organizations have been trying to use different types of this new concept in their advertisements, for their products and services. One type of AR implemented advertisements includes hologram usage and related studies have revealed that most of the examples are about automobiles, shoes, watches etc. (Gianatasio, 2016; Singletary, 2017) In order to examine a different kind of product or service, a flower company “Secret of Flowers” that is working online has hypothetically been formed. In order to eliminate the effect of brand perception on attitude towards ad and purchase intention, hypothetical name has been selected.

As a traditional advertisement method, print magazine for the flower company with its products, slogans, and claims on it has been designed. Another page was also designed including with a QR code, and descriptions about the steps that are required to be followed by the user when directed to a video. In addition, a transparent plastic holographic paper has been attached to the page for its usage in video part.



Figure 4. Print Magazine (Left) and Directing Page (Right) to AR Advertisement

For the purpose of viewing the video with a hologram acetate paper, video has accordingly been designed with flower products that have placed in different angles. By this way, the hologram reveals the object in a three dimensional medium by using a light of fixed wavelength coming from a light source, in this case, a mobile phones of the users, the light is scattered in a wavefield and producing the lighthfield of the original object. (Schnars et al., 2005)

Users are expected to read the QR code on directing page, by using their mobile phones, and by following necessary steps mentioned on the directing page with the usage of hologram acetate, they are expected to view the advertisement. For creating a better view, dark room has been provided to respondents.



Figure 5. Image for Hologram Acetate Paper Usage with Mobile Phone

After all stages performed, quantitative data was collected by using hard-copy questionnaire as a research method.

3.2. SAMPLE SELECTION AND DATA COLLECTION

3.2.1. Sample Selection

In this research, a convenience sampling method has been chosen and applied in which the samples were selected because they are accessible and easy to recruit, also this method of sampling does not require too much time, or money. The selected sample includes employees who have high education levels and high incomes, in Istanbul, Turkey. As Lee (2014) mentioned in his research, those type of audience is more likely to adopt new technologies and therefore using the related sample in this research for gaining relevant results has been decided.

3.2.2. Data Collection

Since AR hologram advertisement viewing might be new concept for the people to understand, it is required to lead the respondents in that stage. In addition, providing a dark room for is required for creating a better view of AR hologram advertisement. By considering all those factors, a hard-copy questionnaire has been delivered to people right after the both advertisement presentations. Well educated employees from different industries in Istanbul, Turkey are demanded to answer the questions in questionnaire both for print magazine ad, and AR hologram ad.

Data collection process has been continued approximately for three weeks, and the collected data was uploaded to Statistical Package for Social Sciences (SPSS) platform for making the necessary analysis and evaluation.

3.3. QUESTIONNAIRE DESIGN

The questionnaire was mainly divided into two sections; one section was for print magazine advertisement, and the other section was for augmented reality hologram advertisement. In each section, questions about six independent variables which were entertainment (ENT), word of mouth (WOM), informativeness (INF), memorability (MEM), irritation (IRR), and time-effort (TEF) have been listed. For AR hologram advertisement, there was also one extra independent variable, ease of use (EOU) that was questioned. For both sections, intention to purchase (PIN) was also questioned as a dependent variable.

For measuring entertainment, word of mouth, irritation, and time-effort variables, there were four items to be questioned in each sections, whereas for informativeness variable there were six items, and for memorability, ease of use and intention to purchase variables there were three items to be questioned. Those items were measured on 5-point likert scale ranging from 1=Strongly disagree, to 5=Strongly agree.

In the questionnaire, demographic information part was also included as age, gender, education level, and income level of respondents. Age was questioned as open ended, gender part includes female or male sections, education level was ranging from bachelor's degree to doctorate degree, and income level was ranging from 2001-3000 to 5000+ Turkish Liras.

3.4. THEORETICAL FRAMEWORK OF RESEARCH

Examining the effects of entertainment, word of mouth, informativeness, memorability, irritation, time-effort, and ease of use on purchase intention of augmented reality advertisement viewers was the main driven purpose while developing the conceptual model of this research.

For making a comparison with traditional advertisement (print magazine), effects of the independent variables - except ease of use - on purchase intention decisions, have also been aimed to be examined and the conceptual model was accordingly designed. For the conceptual model relevant hypotheses were developed.

In the figure below, the theoretical framework developed for this research can be seen for both traditional and AR implemented advertisements;

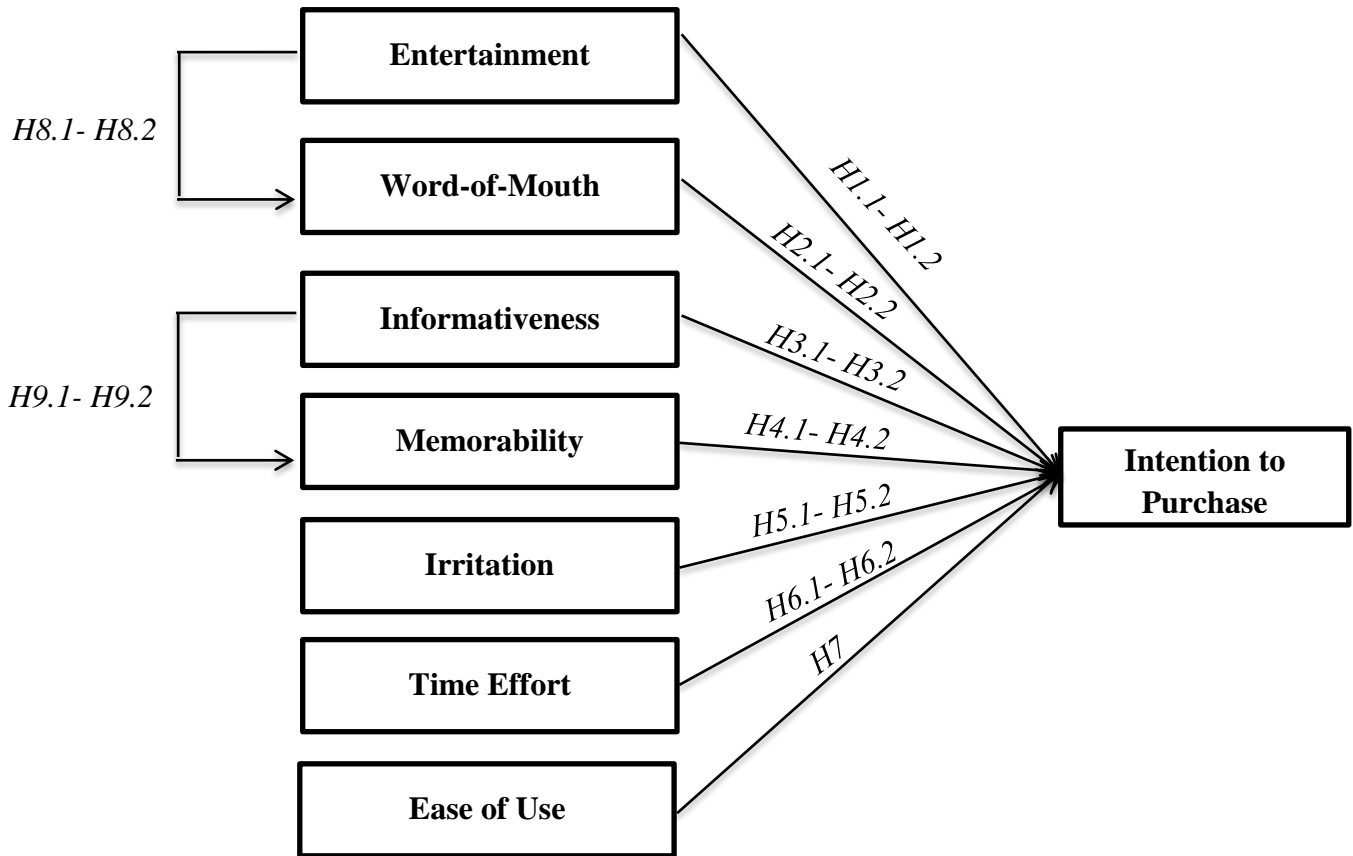


Figure 6. Effect of AR Advertising on Purchase Intention Conceptual Research Model

Hypotheses that were tested in this research can be seen as in the following list;

H1.1: Entertainment has a direct positive effect on purchase intention for traditional advertisement.

H1.2: Entertainment has a direct positive effect on purchase intention for AR advertisement.

H2.1: Word of Mouth has a direct positive effect on purchase intention for traditional advertisement.

H2.2: Word of Mouth has a direct positive effect on purchase intention for AR advertisement.

H3.1: Informativeness has a direct positive effect on purchase intention for traditional advertisement.

H3.2: Informativeness has a direct positive effect on purchase intention for AR advertisement.

H4.1: Memorability has a direct positive effect on purchase intention for traditional advertisement.

H4.2: Memorability has a direct positive effect on purchase intention for AR advertisement.

H5.1: Irritation has a direct negative effect on purchase intention for traditional advertisement.

H5.2: Irritation has a direct negative effect on purchase intention for AR advertisement.

H6.1: Time-Effort has a direct positive effect on purchase intention for traditional advertisement.

H6.2: Time-Effort has a direct positive effect on purchase intention for AR advertisement.

H7: Ease of use has a direct positive effect on purchase intention for AR advertisement.

H8.1: There is a strong positive relationship between Entertainment and Word of Mouth for traditional advertisement.

H8.2: There is a strong positive relationship between Entertainment and Word of Mouth for AR advertisement.

H9.1: There is a positive relationship between Informativeness and Memorability for traditional advertisement.

H9.2: There is a positive relationship between Informativeness and Memorability for AR advertisement.

H10: Exposure to AR advertisement will result in higher Entertainment scores than exposure to traditional advertisement.

H11: Exposure to AR advertisement will result in higher Word of Mouth scores than exposure to traditional advertisement.

H12: Exposure to AR advertisement will result in higher Informativeness scores than exposure to traditional advertisement.

H13: Exposure to AR advertisement will result in higher Memorability scores than exposure to traditional advertisement.

H14: Exposure to AR advertisement will result in higher Irritation scores than exposure to traditional advertisement.

H15: Exposure to AR advertisement will result in higher Time-effort scores than exposure to traditional advertisement.

H16: Exposure to AR advertisement will result in higher Purchase Intention scores than exposure to traditional advertisement

3.5. MEASUREMENT OF INDEPENDENT AND DEPENDENT VARIABLES

All measures of both independent and dependent variables, were searched on the literature and adapted according to the objective of this research. Items that were demanded to be questioned, were translated into Turkish since the sample of this research were composed of Turkish people. After the items of variables were placed in the questionnaire, responses of 94 people were gathered in order to examine and evaluate the interactions of independent variables, with the dependent variable.

Table 1. Measurement of Independent and Dependent Variables

Constructs	Items Questioned	Source
Entertainment	Viewing this ad is entertaining.	(Ducoffe, 1996; McQuail, 1983)
	Viewing this ad is enjoyable.	
	Viewing this ad is pleasing.	
	Viewing this ad is exciting.	
Word of Mouth	I definitely inform people around me about this ad.	(Arndt, 1967; Duhan et al., 1997; Anderson, 1998, Ahn et al., 2004))
	Sharing this ad is pleasing.	
	Sharing this ad is enjoyable.	
	I recommend this ad to people around me.	
Informativeness	Information given in this ad is clear.	(Ducoffe, 1996; Ahn et al., 2004; Hausman and Siepke, 2009)
	This ad is a good source of product information.	
	This ad supplies relevant product information.	
	This ad provides product information immediately accessible.	
	This ad is a convenient source of product information.	
	This ad provides complete product information.	
Memorability	This ad is catchy and memorable.	(Yaoyuneyong et al., 2016; Alvarez and Cavanagh, 2004)
	I think i will remember the content of this ad.	
	It is easy to remember this ad.	

Table 1. Measurement of Independent and Dependent Variables continues

Irritation	This ad is annoying.	(Ducoffe, 1996)
	This ad is irritating.	
	This ad is deceptive.	
	This ad is confusing.	
Time Effort	Viewing this ad is time-consuming.	In the light of literature (Yaoyuneyong et al., 2016), by researcher of this research.
	I have a tendency to spare my time for viewing this ad.	
	I do spare my time for viewing this ad.	
	Viewing this ad worths my time.	
Ease of Use	It is easy to view this ad.	(Venkatesh and Davis, 2000; Gefen et al., 2003)
	It is easy to understand how I can view this ad.	
	It is hard to use the necessary materials for viewing this ad.	
Purchase Intention	After viewing this ad, I have a intention to purchase for the product/service seen in this ad.	(Limayem et al. 2000; Kim et al., 2008; Heijden et al., 2003)
	After viewing this ad, I will definitely want to purchase for the product/service seen in this ad.	
	After viewing this ad, I will definitely purchase the product/service seen in this ad.	

4. RESEARCH FINDINGS

4.1. DESCRIPTIVE STATISTICS FOR DEMOGRAPHIC VARIABLES

Descriptive statistics used for this questionnaire were age, gender, education levels, and income levels of the respondents.

4.1.1. Age

Ages of the sample are ranged between 23 to 42, with a mean 28.88, and the standard deviation is seen as 3.92.

4.1.2. Gender

The sample of this research is including both male and female respondents. From the total number of 94 surveys, 36 were answered by male, and 58 by female respondents. As a percentage weight, it can be defined as 38.3% of male respondents, and 61.7% of female respondents.

Table 2. Gender Representation of the Sample

Gender		
	N	%
Female	58	61.7
Male	36	38.3
Total	94	100

4.1.3. Education Levels

Education levels of the sample are ranging from Bachelor's degree, to Doctorate degree. Majority of the sample with 55 people, has Bachelor's degree (58.5% of all), where 38 people have Master's degree (40.4% of all), and only 1 person has Doctorate degree (1.1% of all).

Table 3. Level of Education Representation of the Sample

Level of education		
	N	%
Bachelor's degree	55	58.5
Master's degree	38	40.4
Doctorate degree	1	1.1
Total	94	100

4.1.4. Income Levels

Income levels of the sample are ranging from 2001-3000 Turkish Liras to 5000+ Turkish Liras. Majority of the sample with 34 people have 4001-5000 TL income (36.2% of all) , where 29 people have 3001-4000 TL income (30.9% of all), 26 people have 5000+ TL income (27.7% of all), and 5 people have 2001-3000 TL income (5.3% of all).

Table 4. Level of Income Representation of the Sample

Level of income (Turkish Liras)		
	N	%
2001-3000	5	5.3
3001-4000	29	30.9
4001-5000	34	36.2
5000+	26	27.7
Total	94	100

4.2. FACTOR ANALYSIS

The purpose of the factor analysis is to find out the variables sets that are highly interrelated, and this relation is seen in the literature as factors (Hair et al. 2006). Factor analysis is commonly carried out to examine the relationship between the judgmentally developed content categories and the empirically derived constructs' (Gable, 1986, p.87) or to figure out whether with different sets of data, the same constructs derived in the previous studies can be derived too. Therefore, in this study, factor analysis is done to find out how many different dimensions the respondents perceive in the constructs and whether they perceive them the same as in the original data with which the scale was developed and also to see whether the derived constructs in this study confirms the existence of theoretically developed content categories.

At the beginning of each factor test, the measure of sampling adequacy is calculated in order to see if the data is appropriate to apply the factor analysis to (Durmuş et al., 2011). Statistics that can represent this adequacy are Keiser- Meyer-Olkin (KMO) and Bartlett's test of sphericity. KMO shows that the data used in the analysis is a homogenous collection of variables and that there are correlations between variables. The lower limit for KMO that is generally agreed upon is 0.50 (Hair et al., 2006, p.115). Bartlett's test on the other hand gives the statistical significance of the inter-correlation between variable (Hair et al., 2006), and the upper limit for the value of p in Social Sciences that is generally agreed upon is 0.05. In addition, for checking the instrument reliability, Cronbach's alpha measurement is needed to be examined and it should be over 0.70 (Nunnally, 1978)

In this research, factor analysis for traditional advertisement (print magazine) was applied and those factors were used for augmented reality implemented advertisement.

4.2.1. Factor and Reliability Analysis for Entertainment

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Mayer-Olkin and Bartlett test measures were obtained. The results (KMO=0.820, χ^2 Bartlett test 338.051, df=6, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. No items were excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was determined, and it was estimated to be reliable. One dimension was found as a result of the analysis, and its total variance is 81.42%.

Table 5. Factor and Reliability Analysis of Entertainment (ENT)

Factor Name	Factor Item	Factor Loading	%Variance	Reliability
ENT	ENT_1	.947	81.42	.921
	ENT_2	.945		
	ENT_3	.916		
	ENT_4	.792		

4.2.2. Factor and Reliability Analysis for Word of Mouth

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Mayer-Olkin and Bartlett test measures were obtained. The results (KMO=0.784, χ^2 Bartlett test 398.728, df=6, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. No items were excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was determined, and it was estimated to be reliable. One dimension was found as a result of the analysis, and its total variance is 85.39%. No items were excluded.

Table 6. Factor and Reliability Analysis of Word of Mouth (WOM)

Factor Name	Factor Item	Factor Loading	% Variance	Reliability
WOM	WOM_3	.958	85.39	.942
	WOM_2	.942		
	WOM_4	.900		
	WOM_1	.895		

4.2.3. Factor and Reliability Analysis for Informativeness

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Mayer-Olkin and Bartlett test measures were obtained. The results (KMO=0.841, χ^2 Bartlett test 334.982, df=15, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. No items were excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was determined, and it was estimated to be reliable. One dimension was found as a result of the analysis, and its total variance is 64.78%.

Table 7. Factor and Reliability Analysis of Informativeness (INF)

Factor Name	Factor Item	Factor Loading	%Variance	Reliability
INF	INF_4	.889	64.78	.885
	INF_3	.869		
	INF_2	.852		
	INF_5	.820		
	INF_1	.727		
	INF_6	.644		

4.2.4. Factor and Reliability Analysis for Memorability

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Mayer-Olkin and Barlett test measures were obtained. The results (KMO=0.761, χ^2 Bartlett test 260.706, df=3, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. No items were excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was determined, and it was estimated to be reliable. One dimension was found as a result of the analysis, and its total variance is 89.91%.

Table 8. Factor and Reliability Analysis of Memorability (MEM)

Factor Name	Factor Item	Factor Loading	% Variance	Reliability
MEM	MEM_1	.959	89.91	.943
	MEM_3	.952		
	MEM_2	.933		

4.2.5. Factor and Reliability Analysis for Irritation

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Mayer-Olkin and Barlett test measures were obtained. The results (KMO=0.858, χ^2 Bartlett test 461.578, df=6, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. No items were excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was determined, and it was estimated to be reliable. One dimension was found as a result of the analysis, and its total variance is 89.90%.

Table 9. Factor and Reliability Analysis of Irritation (IRR)

Factor Name	Factor Item	Factor Loading	% Variance	Reliability
IRR	IRR_3	.964	89.90	.959
	IRR_2	.963		
	IRR_4	.953		
	IRR_1	.911		

4.2.6. Factor and Reliability Analysis for Time Effort

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Meyer-Olkin and Barlett test measures were obtained. The results (KMO=0.842, χ^2 Bartlett test 266.018, df=6, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. No items were excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was determined, and it was estimated to be reliable. One dimension was found as a result of the analysis, and its total variance is 79.87%.

Table 10. Factor and Reliability Analysis of Time Effort (TEF)

Factor Name	Factor Item	Factor Loading	% Variance	Reliability
TEF	TEF_2	.929	79.87	.914
	TEF_4	.910		
	TEF_3	.884		
	TEF_1	-.850		

4.2.7. Factor and Reliability Analysis for Purchase Intention

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Meyer-Olkin and Barlett test measures were obtained. The results (KMO=0.707, χ^2 Bartlett test 186.687, df=3, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. No items were excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was determined, and it was estimated to be reliable. One dimension was found as a result of the analysis, and its total variance is 83.67%.

Table 11. Factor and Reliability Analysis of Purchase Intention (PIN)

Factor Name	Factor Item	Factor Loading	% Variance	Reliability
PIN	PIN_2	.949	83.67	.892
	PIN_3	.908		
	PIN_1	.886		

4.2.8. Factor and Reliability Analysis for Ease of Use

The extent to which the data is useful and suitable for the factor analysis, Kaiser-Mayer-Olkin and Barlett test measures were obtained. The results (KMO=0.500 χ^2 Bartlett test 11.814, df=1, p=0.000) were adequate. Anti-image correlation diagonals are all exceeding 0.50, meaning all single items in the factor analysis are to be involved. One item was excluded.

Following these measurements, component analysis and varimax rotation was performed. Cronbach's alpha coefficient was not sufficient. So we cannot use Ease of Use (EOU) as an independent variable.

Table 12. Factor and Reliability Analysis of Ease of Use (EOU)

Factor Name	Factor Item	Factor Loading	% Variance	Reliability
EOU	EOU_1	.821	67.40	.462
	EOU_2	.821		

4.2.9. Reliability Analysis for Each AR Constructs

Reliability scores of Entertainment, Word of Mouth, Informativeness, Memorability, Irritation, Time Effort, and Intention to Purchase factors for AR were conducted.

Table 13. Reliability Analysis of AR Constructs

Constructs	Reliability
ENT	.947
WOM	.945
INF	.814
MEM	.849
IRR	.787
TEM	.939
PIN	.862

After the factor analysis and elimination of EOU, revised research model can be seen as below:

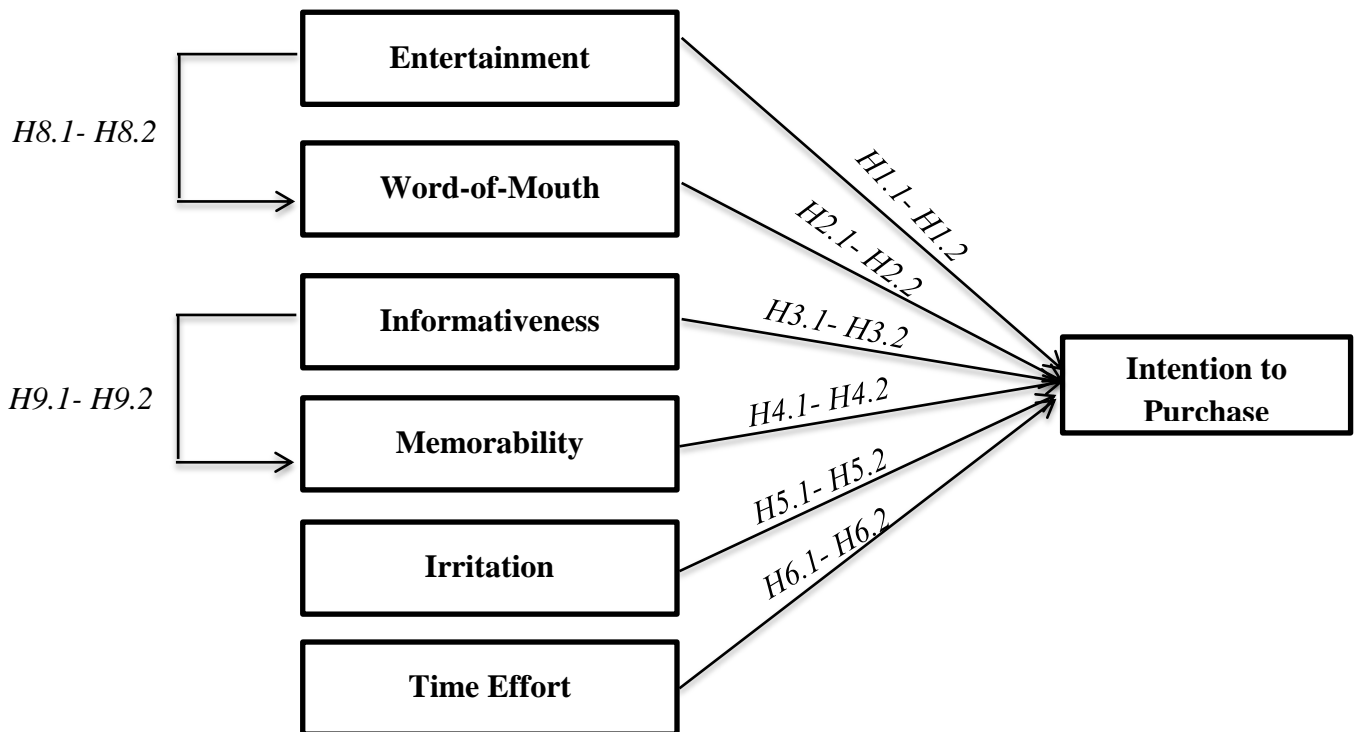


Figure 7. Effect of AR Advertising on PIN Revised Conceptual Research Model

4.3. REGRESSION ANALYSIS

Regression analysis is defined as a reliable method followed in statistics for identifying the relationship between independent variables and dependent variables. By regression analysis, which variables have an impact on the research topic of interest and also the degree of that impact can be observed.

Independent variables are the factors that the researcher aimed to investigate and therefore formed hypotheses about their interrelation, or relation with the dependent variable. Dependent variable on the other hand, can be defined as a main factor that is tried to be examined. If a relationship between two or more independent variables and one dependent variable, multiple regression analysis is followed, whereas simple regression analysis is followed when the relationship between two variables is needed to be investigated.

4.3.1. Multiple Regression Analysis of H1, H2, H3, H4, H5, H6, and H7

In order to find the relationship between Entertainment, Word of Mouth, Informativeness, Memorability, Irritation, and Time-effort with Purchase Intention, two separate Multiple Linear Regression Analyses were performed; one is for traditional advertisement, another is for augmented reality (AR) advertisement.

Multiple Regression Analysis Results for Traditional Advertisement

As reflected in Table 14.; MEM, ENT, INF, and TEF have contribution on PIN. The overall explanatory power of model was 54.1% ($R=0.736$; $R^2=0.541$; $F=26.236$, $p=0.000$).

Table 14. Multiple Linear Regression of Hypotheses for Traditional Advertisement

Dependent Variable : PIN			
Independent Variables :	Beta	t-value	p-value
MEM	0.240	2.156	0.034
ENT	0.286	3.120	0.002
INF	0.179	2.177	0.032
TEF	0.213	2.084	0.040

As it can be seen from Table 14., interaction with PIN is seen as very similar for ENT ($\beta=0.286$, $p= 0,002$) and MEM ($\beta=0.240$, $p= 0,034$). Then interaction of TEF with PIN is seen ($\beta=0.213$, $p= 0,040$) and low interaction of INF with PIN for traditional advertisement is seen ($\beta=0.179$, $p= 0,032$)

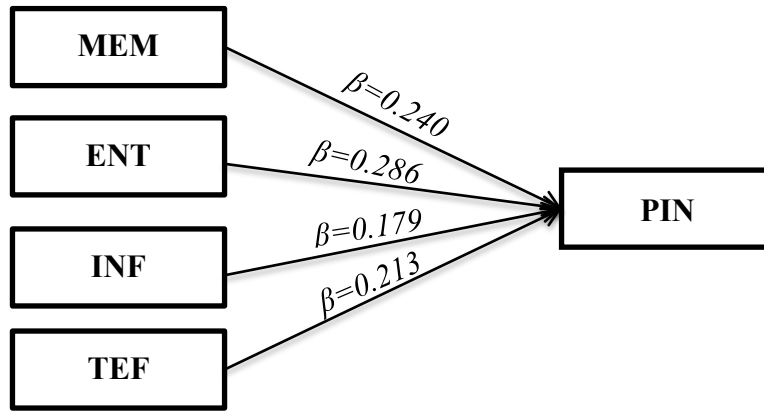


Figure 8. Multiple Linear Regression of Hypotheses for Traditional Advertisement

Multiple Regression Analysis Results for Augmented Reality Advertisement

As reflected in Table 15.; WOM, INF, and TEF have contribution on PIN. The overall explanatory power of model was 50.7% ($R=0.712$; $R^2=0.507$; $F=30.875$, $p=0.000$).

Table 15. Multiple Linear Regression of Hypotheses for Augmented Reality Advertisement

Dependent Variable : PIN			
Independent Variables :	Beta	t-value	p-value
WOM	0.392	4.672	0.000
INF	0.418	5.460	0.000
TEF	0.198	2.426	0.017

As it can be seen from Table 15., interaction with PIN is seen as the highest for INF ($\beta=0.418$, $p= 0,000$). Then interaction of WOM with PIN is seen as high ($\beta=0.392$, $p= 0,000$) and low interaction of TEF with PIN for augmented reality advertisement is seen ($\beta=0.198$, $p= 0,017$)

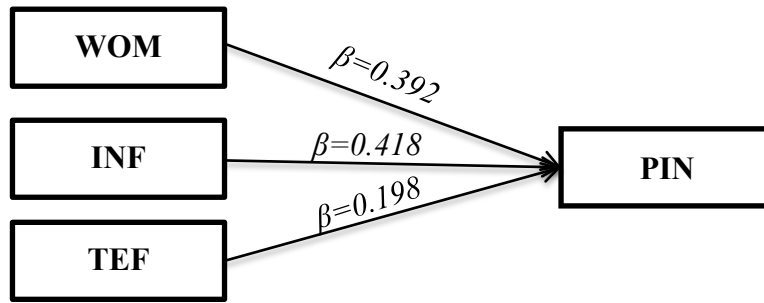


Figure 9. Multiple Linear Regression of Hypotheses for Augmented Reality Advertisement

4.3.2. Simple Regression Analysis of H8

In order to find the relationship between Entertainment and Word of Mouth, two separate Simple Linear Regression Analyses were performed; one is for traditional advertisement, another is for augmented reality (AR) advertisement.

Simple Regression Analysis Results for Traditional Advertisement

As reflected in Table 16.; ENT has a positive contribution on WOM. The overall explanatory power of model was 52.9% ($R=0.728$; $R^2=0.529$; $F=103.442$, $p=0.000$).

Table 16. Simple Linear Regression of H8 for Traditional Advertisement

Dependent Variable : WOM			
Independent Variables :	Beta	t-value	p-value
ENT	0.728	10.171	0.000

As it can be seen from Table 16., there is a high correlation and strong relationship between ENT and WOM ($\beta=0.728$, $p=0.000$) for traditional advertisement.

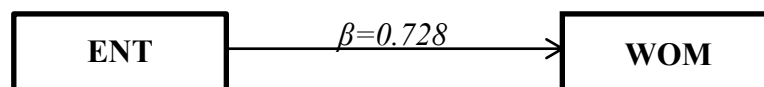


Figure 10. Simple Linear Regression of H8 for Traditional Advertisement

Simple Regression Analysis Results for Augmented Reality Advertisement

As reflected in Table 17.; ENT has a positive contribution on WOM. The overall explanatory power of model was 51.0% ($R=0.714$; $R^2=0.510$; $F=95.794$, $p=0.000$).

Table 17. Simple Linear Regression of H8 for Augmented Reality Advertisement

Dependent Variable : WOM			
Independent Variables :	Beta	t-value	p-value
ENT	0.714	9.787	0.000

As it can be seen from Table 17., there is a high correlation and strong relationship between ENT and WOM ($\beta=0.714$, $p=0.000$) for augmented reality advertisement.

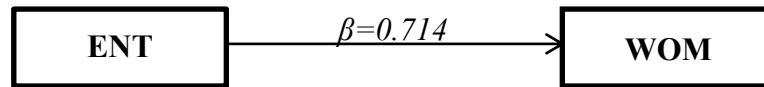


Figure 11. Simple Linear Regression of H8 for Augmented Reality Advertisement

4.3.3. Simple Regression Analysis of H9

In order to find the relationship between Informativeness and Memorability, two separate Simple Linear Regression Analysis were performed; one is for traditional advertisement, another is for augmented reality (AR) advertisement.

Simple Regression Analysis Results for Traditional Advertisement

As reflected in Table 18.; INF has a positive contribution on MEM. The overall explanatory power of model was 19.2% ($R=0.439$; $R^2=0.192$; $F=21.922$, $p=0.000$).

Table 18. Simple Linear Regression of H9 for Traditional Advertisement

Dependent Variable : MEM			
Independent Variables :	Beta	t-value	p-value
INF	0.439	4.682	0.000

As it can be seen from Table 18., there is a positive and moderate correlation between INF and MEM ($\beta=0.439$, $p= 0,000$) for traditional advertisement.

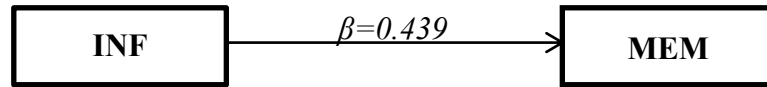


Figure 12. Simple Linear Regression of H9 for Traditional Advertisement

Simple Regression Analysis Results for Augmented Reality Advertisement

As reflected in Table 19.; INF has a positive contribution on MEM. The overall explanatory power of model was 9.6% ($R=0.309$; $R^2=0.096$; $F=9.740$, $p=0.002$).

Table 19. Simple Linear Regression of H9 for Augmented Reality Advertisement

Dependent Variable : MEM			
Independent Variables :	Beta	t-value	p-value
INF	0.309	3.121	0.002

As it can be seen from Table 19., there is a positive and moderate correlation between INF and MEM ($\beta=0.309$, $p= 0,000$) for augmented reality advertisement.

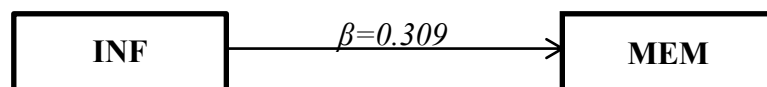


Figure 13. Simple Linear Regression of H9 for Augmented Reality Advertisement

4.4. PAIRED SAMPLE T-TEST ANALYSIS RESULTS

In order to find the difference between augmented reality ads and traditional ads in terms of constructs, we applied paired sample t-test.

Table 20. Paired Sample t-test Results for Constructs of Traditional and AR ads

Constructs		N	Mean	Std. Dev	t-value	p-value
ENT	T_ENT	94	2.89	0.87	-14.034	0.000
	AR_ENT	94	4.38	0.72		
WOM	T_WOM	94	2.54	0.83	-17.548	0.000
	AR_WOM	94	4.21	0.72		
INF	T_INF	94	3.14	0.78	-5.866	0.000
	AR_INF	94	3.60	0.68		
MEM	T_MEM	94	2.85	0.95	-15.831	0.000
	AR_MEM	94	4.53	0.63		
IRR	T_IRR	94	1.62	0.89	1.274	0.206
	AR_IRR	94	1.51	0.69		
TEF	T_TEF	94	3.27	0.84	-6.464	0.000
	AR_TEF	94	3.44	0.73		
PIN	T_PIN	94	2.62	0.68	-10.125	0.000
	AR_PIN	94	3.40	0.70		

As it can be seen in Table 20., augmented reality ad constructs are resulted in higher mean levels when compared with traditional ad constructs, except irritation (IRR) variable.

Summary of Hypotheses Results

As a result of various analyses mentioned, accepted and rejected hypotheses can be read from the below Table 21.;

Table 21. Summary of Hypotheses Results

Hypotheses	Results
H1.1: Entertainment has a direct positive effect on purchase intention for traditional ad.	Accepted
H1.2: Entertainment has a direct positive effect on purchase intention for AR ad.	Rejected
H2.1: Word of Mouth has a direct positive effect on purchase intention for traditional ad.	Rejected
H2.2: Word of Mouth has a direct positive effect on purchase intention for AR ad.	Accepted
H3.1: Informativeness has a direct positive effect on purchase intention for traditional ad.	Accepted
H3.2: Informativeness has a direct positive effect on purchase intention for AR ad.	Accepted
H4.1: Memorability has a direct positive effect on purchase intention for traditional ad.	Accepted
H4.2: Memorability has a direct positive effect on purchase intention for AR ad.	Rejected
H5.1: Irritation has a direct negative effect on purchase intention for traditional ad.	Rejected
H5.2: Irritation has a direct negative effect on purchase intention for AR ad.	Rejected
H6.1: Time-effort has a direct positive effect on purchase intention for traditional ad.	Accepted
H6.2: Time-effort has a direct positive effect on purchase intention for AR ad.	Accepted

Table 21. Summary of Hypotheses Results continues

Hypotheses	Results
H7: Ease of use has a direct positive effect on purchase intention for AR ad.	Rejected
H8.1: There is a strong positive relationship between Entertainment and Word of Mouth for traditional ad.	Accepted
H8.2: There is a strong positive relationship between Entertainment and Word of Mouth for AR ad.	Accepted
H9.1: There is a positive relationship between Informativeness and Memorability for traditional ad.	Accepted
H9.2: There is a positive relationship between Informativeness and Memorability for AR ad.	Accepted
H10: Exposure to AR ad will result in higher Entertainment scores than exposure to traditional ad.	Accepted
H11: Exposure to AR ad will result in higher Word of Mouth scores than exposure to traditional ad.	Accepted
H12: Exposure to AR ad will result in higher Informativeness scores than exposure to traditional ad.	Accepted
H13: Exposure to AR ad will result in higher Memorability scores than exposure to traditional ad.	Accepted
H14: Exposure to AR ad will result in higher Irritation scores than exposure to traditional ad.	Rejected
H15: Exposure to AR ad will result in higher Time-Effort scores than exposure to traditional ad.	Accepted
H16: Exposure to AR ad will result in higher Purchase Intention scores than exposure to traditional ad.	Accepted

5. CONCLUSIONS

The main objective of this study was evaluating and determining the effect of variables on purchase intention of the respondents, for augmented reality advertisements. In order to make comparison with traditional advertisements, effects of variables on purchase intention for traditional advertisement was also examined. In this research, as independent variables, entertainment (ENT), word of mouth (WOM), informativeness (INF), memorability (MEM), irritation (IRR), and time-effort (TEF) have been examined for both type of advertisements, whereas for augmented reality advertisement the effect of ease of use (EOU) construct has also been examined. Furthermore, the relationship between entertainment (ENT), and word of mouth (WOM) ; and the relationship between informativeness (INF), and memorability (MEM) were also aimed to be investigated for both traditional advertisement and AR advertisement.

The research was conducted with 94 people with a 28.88 age average. 61.7% of respondents were female, whereas 38.3% of respondents were male. All of the respondents were educated with, Bachelor's Degree (58.5% of total), Master's Degree (40.4%), and Doctorate Degree (1.1% of total). Majority of the respondents have high income levels with 4000-5000 Turkish Lira (36.2%). The convenience sample was selected since it lets the researcher to easily recruit the respondents, without any extra budget requirement. As Lee (2014) mentioned in his research, those type of audience is more likely to adopt new technologies and therefore using the related sample in this research for gaining relevant results has been decided.

After data collection period, data was collected and implemented into Statistical Package for Social Sciences (SPSS) platform for making the necessary analysis and evaluation. In order to describe the variability among un-observed but interrelated variables called factors, and to examine the correlation between hypothetically developed content and the empirically derived constructs, factor and reliability analysis was conducted. (Gable, 1986) In order to understand the sampling adequacy of the constructs, Keiser-Meyer-Olkin's (KMO) measurement was investigated. It gives information about the homogeneous collection of variables and the higher KMO ratio means, the higher convenience of data set for analysis. However, the lower threshold for KMO ratio was determined as 0.50, if the ratio is lower than 0.50, the related data set cannot be used for factor analysis. (Hair et al., 2006) For checking the instrument reliability, Cronbach's alpha measurement is needed to be examined and it should be over 0.70 (Nunnally, 1978)

In this research, factor analysis for traditional advertisement (print magazine) was applied and those factors were used for augmented reality implemented advertisement. Each research constructs were examined by the application of factor and reliability analysis and seen that all of them are suitable and reliable with KMO over 0.50 and reliability over 0.70, except ease of use (EOU) variable with KMO=0.50 and reliability 0.462. All items were included for all constructs except ease of use, in which one of the items were excluded. Therefore, it was commented that ease of use construct cannot be used in this research and ease of use construct was eliminated from the research model. Other remaining constructs were also seen as reliable and suitable for further analysis, for augmented reality advertisement.

Multiple Regression Analysis is used to define the relationship between several independent variables or predictor variables, and a dependent variable. In order to understand the relationship between entertainment, word of mouth, informativeness, memorability, irritation, and time-effort on purchase intention, multiple regression analyses were conducted for both traditional advertisement and augmented reality advertisement in this research.

As a result of multiple regression analysis for traditional advertisement, it was seen that memorability, entertainment, informativeness, and time-effort have an effect on purchase intention, whereas word of mouth and irritation has no contribution on purchase intention of the respondents. Contribution on purchase intention was seen as positive and similar for entertainment ($\beta=0.286$, $p= 0,002$) and memorability ($\beta=0.240$, $p= 0,034$) constructs, where time-effort has also positive contribution on purchase intention ($\beta=0.213$, $p= 0,040$) although its contribution is slightly lower than entertainment and memorability. On the other hand, contribution of informativeness is resulted as lower ($\beta=0.179$, $p= 0,032$).

In conclusion of multiple regression analysis for traditional advertisement, hypotheses seen below were accepted;

H1.1: Entertainment has a direct positive effect on purchase intention for traditional ad.

H3.1: Informativeness has a direct positive effect on purchase intention for traditional ad.

H4.1: Memorability has a direct positive effect on purchase intention for traditional ad.

H6.1: Time-effort has a direct positive effect on purchase intention for traditional ad.

However, hypotheses seen below were rejected as a result of multiple regression analysis for traditional advertisement:

H2.1: Word of Mouth has a direct positive effect on purchase intention for traditional ad.

H5.1: Irritation has a direct negative effect on purchase intention for traditional ad.

On the other hand, as a result of multiple regression analysis for augmented reality advertisement, it was seen that word of mouth, informativeness, and time-effort have an effect on purchase intention, whereas entertainment, memorability, and irritation has no contribution on purchase intention of the respondents. The highest positive contribution on purchase intention was seen for informativeness ($\beta=0.418$, $p= 0,000$) and contribution is also seen as high for word of mouth ($\beta=0.392$, $p= 0,000$). Time-effort has also positive contribution on purchase intention although its contribution is low. ($\beta=0.198$, $p= 0,017$)

These results reveal that people who have a desire to talk about and tendency to share the AR advertisement, are more likely to purchase the product or service that is presented in the advertisement. This feeds the research saying that WOM is the most important source with regard to becoming aware and deciding to purchase an innovation. (Sheth, 1971; Bickart and Schindler, 2001) By sharing the advertisement with a pleasure, they believe that the people who view the advertisement with a suggestion will also feel pleasure and with the additional effect of trust, their purchase intention possibly will increase. In addition, the more informative ads, the more ad value gets (Ducoffe, 1996) and this will result in the satisfaction and increase in adoption probability of respondents. (Bauer and Greyser, 1968)

In conclusion of multiple regression analysis for augmented reality advertisement, hypotheses seen below were accepted;

H2.2: Word of Mouth has a direct positive effect on purchase intention for AR ad.

H3.2: Informativeness has a direct positive effect on purchase intention for AR ad.

H6.2: Time-effort has a direct positive effect on purchase intention for AR ad.

However, hypotheses seen below were rejected:

H1.2: Entertainment has a direct positive effect on purchase intention for AR ad.

H4.2: Memorability has a direct positive effect on purchase intention for AR ad.

H5.2: Irritation has a direct negative effect on purchase intention for AR ad.

Effect of ease of use on AR advertisement cannot be examined since the construct was eliminated due to its low reliability in factor analysis section. Thus, below hypothesis was also rejected:

H7: Ease of use has a direct positive effect on purchase intention for AR ad.

Simple Regression Analysis is used to define the relationship between two variables. In order to understand the relationship between entertainment and word of mouth; and between informativeness and memorability, two separate simple regression analyses were conducted for both traditional advertisement and augmented reality advertisement in this research.

As a result of simple regression analyses for understanding the correlation between entertainment and word of mouth, in both traditional and AR advertisements, it was seen that there is a high positive correlation between entertainment and word of mouth ($\beta=0.728$, $p=0,000$; $\beta=0.714$, $p=0,000$ respectively). Regardless of the advertisement type, people who feel enjoyment and pleasure, are more likely to share the advertisement with their surroundings by using the power of word of mouth. This result was expected for both of ad types and the result also fed the research that studied shopping enjoyment effect on WOM and resulted in positive relationship. (Mihic and Milakovic, 2017) In addition, it has been revealed that individuals who feel the enjoyment and pleasure and therefore the satisfaction when they view the advertisement, are more likely to contribute on word of mouth. (Ladhari, 2007)

In conclusion, hypotheses seen below were accepted;

H8.1: There is a strong positive relationship between Entertainment and Word of Mouth for traditional ad.

H8.2: There is a strong positive relationship between Entertainment and Word of Mouth for AR ad.

As a result of simple regression analyses for understanding the correlation between informativeness and memorability, in both traditional and AR advertisements, it was seen that there is a moderate positive correlation between informativeness and memorability ($\beta=0.439$, $p=0,000$; $\beta=0.309$, $p=0,002$ respectively). Independent from the advertisement type, informativeness property of an advertisement do not have a huge impact on the memorability of an ad or memorability of products or services. Independence of memorability was also mentioned in research by Tyler and Rasinski (1984).

In conclusion, hypotheses seen below were accepted;

H9.1: There is a positive relationship between Informativeness and Memorability for traditional ad.

H9.2: There is a positive relationship between Informativeness and Memorability for AR ad.

Last test to be mentioned is the paired sample t-test, also known as the dependent sample t-test, which is used for determination of mean values and their differences in two data sets. This test has been mainly used in studies that have both research and control groups like in medicine studies in which the effect of medication is aimed to be understood by comparing the results of two data sets. In this research, mean scores of entertainment, word of mouth, informativeness, memorability, irritation, time-effort, and purchase intention in both traditional advertisement and augmented reality advertisement were examined for making comparisons.

As a result of paired sample t-test, mean scores of all constructs were seen as higher for augmented reality advertisement, except irritation construct. Mean scores of entertainment, word of mouth, and memorability, were resulted as much higher in augmented reality advertisement, and also the mean scores are close to 5=completely agree degree within AR advertisement. With those outcomes, it can be said that AR advertisement enjoyed the respondents, increased their tendency to contribute word of mouth advertising, and let the respondents to form and sustain the long relationships by being memorable with the ad itself and, with the products or services.

In addition, mean score for purchase intention, have a significant difference when compared AR advertisement and traditional advertisement. According to the results, it can be seen that AR advertisement increased the purchase intention of viewers, in which that intention is low in

traditional advertisement. Various researches stated that, AR advertisements are believed to result in stronger purchase intentions. (Li, Daugherty and Biocca, 2002; Klein, 2003; Schlosser, 2003).

Mean scores for informativeness, and time-effort are still higher for augmented reality advertisement, than traditional print magazine advertisement. However, for both advertisement types, respondents gave ‘neither agree nor disagree’ option in general and therefore their mean scores were resulted in around 3.00. Moreover, Irritation construct’s mean scores were very close to ‘totally disagree’ option in which questioned items were carrying negativity like ‘viewing this ad is annoying / irritating / deceptive / confusing’ meaning, respondents did not correlate irritation with any of the advertisements. Besides, irritation mean score for AR advertisement, is seen as slightly higher when compared with traditional advertisement score, which is unexpected because eventhough the sample was consisted of young well educated individuals, irritation sense was thought to be higher for AR advertisement by taking a research by Ducoffe (1996) and stating irritation levels is getting increased in the digital advertising channels.

In conclusion, hypotheses seen below were all accepted:

H10: Exposure to AR ad will result in higher Entertainment scores than exposure to traditional ad.

H11: Exposure to AR ad will result in higher WOM scores than exposure to traditional ad.

H12: Exposure to AR ad will result in higher Informativeness scores than exposure to traditional ad.

H13: Exposure to AR ad will result in higher Memorability scores than exposure to traditional ad.

H15: Exposure to AR ad will result in higher Time-Effort scores than exposure to traditional ad.

H16: Exposure to AR ad will result in higher Purchase Intention scores than exposure to traditional ad.

however, hypothesis seen below was rejected:

H14: Exposure to AR ad will result in higher Irritation scores than exposure to traditional ad.

5.1. MANAGERIAL IMPLICATIONS

As a result of this research it can be seen that if the marketers or advertisers have a desire to positively affect the intention to purchase of customers, through presenting augmented reality implemented advertisements, they need to focus on creating WOM effect and designing the content as informative as possible.

Creating WOM effect on customers is also provides a strong advantage to companies and organizations, in terms of advertising their product or services to wider audience without showing any extra effort or wasting time and money. In addition, people tend to share their experiences via WOM, only if they get pleasure to view the related advertisement, and only if they trust the advertisement and also the products and services. Eventually, trust is also one of the critical factor that advertisers should provide to their customers in order to effect their behaviors and intentions. In this research, it was also seen that there is a strong relationship between entertainment and word of mouth for AR advertisement. Therefore, although entertainment has no direct effect on purchase intention of the respondents, it increases the WOM and thus, indirectly has an effect on purchase intention.

On the other hand, quality of information and content are the factors that determine the ad value from the point of customer's view. People want to get relevant information about product or service features, so that they can evaluate that information and compare with competitive advertisements and products/services, and as a result their intentions will accordingly shape. In addition, since this research revealed that there is a positive moderate correlation between informativeness and memorability for AR advertisement, and memorability mean score is much higher in AR ad, advertisers should focus on memorability factor of an ad for positively influence the intention to purchase of customers.

This study revealed that, people do not feel irritation for AR implemented advertisements, instead they are ready to spare their time for viewing the advertisement, they feel the entertainment, tend to share with their others, and their intention to purchase was resulted as higher when compared with traditional print magazine advertisement. Hence, advertisers and marketers, should keep in mind that with the rise of digital era, usage of innovative ideas and technology in advertisement business will increase and adoption by audience seems promising.

6. LIMITATIONS AND FUTURE RESEARCH

Prior research in this specific area has been limited in the literature, therefore finding relevant researches as examples was not easy. During the design of questionnaire, research constructs and items that are demanded to be questioned, were investigated in literature, however for some of the constructs like time-effort there was no specific research with questioned items, therefore questions of time-effort construct were formed based on the light of the literature, by the researcher. In addition, since augmented reality usage in advertising is still new for advertisers, every type of various AR applications has not been used in the advertising area. In this research hologram acetate paper was used as AR type, in which 3D image occurs in the medium that light coming from a source is scattered, and respondents see the product like it is actually there. For hologram AR applications, we cannot find relevant academic study in the literature therefore examples were given from the industry.

In this research, convenience sampling method was followed due to its easiness in recruitment the individuals, and due to limited time. Providing dark and quite room is required because the light scattered from the light source – in this case the mobile phones of the respondents – can only be visible in dark. For providing better image of products shown, also the quality of hologram acetate paper should be high. Since an average quality hologram acetate paper was used in this research, results for AR advertisement might differ if a high quality hologram will be used.

In addition, making generalization might not be possible since education and income levels of the respondents were resulted as closer and higher, and therefore in future research, larger sample size might be required in order to provide sufficiency in finding statistical significant differences among the constructs. In future research, additional independent variables might be added to a conceptual research model and their relevance with the purchase intension might also be investigated.

APPENDIX

Questionnaire Approval Page (In Turkish)

Arttırılmış Gerçeklik Kullanılan Reklamların Satın Almaya Etkisi

Giriş Sayfası

Bu anket çalışmasını, İstanbul Bilgi Üniversitesi - Pazarlama yüksek lisansımın bitirme tezi için hazırladım. Anketimin temel amacı, Arttırılmış Gerçeklik (Augmented Reality) ile hazırlanmış reklamların geleneksel reklamlara göre izleyicinin satın alma niyetini ne derecede etkilediğini ölçümleyebilmektir.

Çalışma süresince verilecek soruların doğru veya yanlış cevapları yoktur. Bu anket tamamen anonim olup kişisel bilgilerinizle ilgili sorular içermemektedir. Çalışmaya katılım gönüllülük temelindedir. Ankette, sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız gizli tutulacak; elde edilecek bilgiler bitirme tezi kapsamında kullanılacaktır. Deney kişisel rahatsızlık verecek sorular içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz anketi yarıda bırakıp çıkabilirsiniz.

Ankete katılıp tamamladığınız için şimdiden çok teşekkür ederim.

Konu hakkında daha fazla bilgi almak isterseniz cihangir.pastirmaci@gmail.com'a sorularınızı ve yorumlarınızı iletebilirsiniz.

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bahsedilen tez kapsamında kullanılmasını kabul ediyorum. Gönüllü katılım formunu onaylıyorsanız, onayınıza dair aşağıdaki kutucuğu işaretleyerek anket sorularına geçebilirsiniz.

○ KABUL EDİYOR VE ONAYLIYORUM

Thesis Questionnaire (In Turkish)

Aşağıdaki ifadelere her iki reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.	Geleneksel Afiş Reklamı					AR (Hologram) İçeren Reklam				
	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Bu reklamı görmek eğlencelidir.										
Bu reklamı görmek keyiflidir.										
Bu reklamı görmek memnun edicidir.										
Bu reklamı görmek heyecan vericidir.										
Aşağıdaki ifadelere her iki reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.	Geleneksel Afiş Reklamı					AR (Hologram) İçeren Reklam				
	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Bu reklamı görmeleri için çevremi mutlaka bilgilendiririm.										
Bu reklamı paylaşmak memnun edicidir.										
Bu reklamı paylaşmak keyiflidir.										
Bu reklamdan ilgili çevrelerde bahsederim.										

Aşağıdaki ifadelere her iki reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.	Geleneksel Afiş Reklamı					AR (Hologram) İçeren Reklam				
	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Bu reklamda verilen bilgi açık ve nettir.										
Bu reklam ürün bilgisi için iyi bir kaynaktır.										
Bu reklam ilgili ürün bilgilerini sağlar.										
Bu reklam ürün bilgisine anında erişimi mümkün kılar.										
Bu reklam ürün bilgisi için uygun bir kaynaktır.										
Bu reklam eksiksiz ürün bilgisi sağlar.										
Aşağıdaki ifadelere her iki reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.	Geleneksel Afiş Reklamı					AR (Hologram) İçeren Reklam				
	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Bu reklam akılda kalıcıdır.										
Bu reklamda yer alan içeriği reklamı gördükten sonra hatırlayacağımı düşünüyorum.										
Bu reklamı hatırlamak benim için kolaydır.										

Aşağıdaki ifadelere her iki reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.	Geleneksel Afiş Reklamı					AR (Hologram) İçeren Reklam				
	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Bu reklam can sıkıcıdır.										
Bu reklam rahatsız edicidir.										
Bu reklam aldatıcıdır.										
Bu reklam kafa karıştırıcıdır.										
Aşağıdaki ifadelere her iki reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.	Geleneksel Afiş Reklamı					AR (Hologram) İçeren Reklam				
	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Bu reklamı görmek benim için zaman kaybıdır.										
Bu reklamı görmek için zaman ayırmak isterim.										
Bu reklamı görmek için zaman ayırıyorum.										
Bu reklamı görmek için ayırdığım zamana değer.										

Aşağıdaki ifadelerle sadece AR ile hazırlanmış reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.						AR (Hologram) İçeren Reklam				
						Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Aşağıdaki ifadelerle her iki reklamı düşünerek ne derece katıldığınızı lütfen işaretleyiniz.	Geleneksel Afiş Reklamı					AR (Hologram) İçeren Reklam				
	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Bu reklamı gördükten sonra ilgili ürünü/servisi almaya niyetim vardır.										
Bu reklamı gördükten sonra ilgili ürünü/servisi mutlaka almak isterim.										
Bu reklamı gördükten sonra ilgili ürünü/servisi kesinlikle alırım.										

Yaşınız ?						
Cinsiyetiniz ?	Kadın	Erkek				
Eğitim Durumunuz ?	Lise	Lisans	Yüksek Lisans	Doktora		
Aylık Geliriniz (TL) ?	0-1000	1001-2000	2001-3000	3001-4000	4001-5000	5000+

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