

**BRANDTHE REPUBLIC OF TURKEY  
BAHCESEHIR UNIVERSITY**

**THE IMPORTANCE OF INNOVATION ON THE  
PERCEPTION OF BRAND  
AND  
A STUDY ON MOBILE PHONE MARKET**

**Master's Thesis**

**ALP AĞRI BİLİCİ**

**ISTANBUL, 2018**



**THE REPUBLIC OF TURKEY  
BAHCESEHIR UNIVERSITY**

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

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**Supervisor: ASSOC. PROF. DR. GÖZDE ÖYMEN**

**İSTANBUL, 2018**



## **PREFACE**

I would like to thank my thesis supervisor, Assoc. Prof. Gözde Öymen who guided and supported me with her knowledge and experience by raising my motivation from the beginning until the end.

Also, I'd like to thank my family for their patience, faith and support that they showed me during this period.

Istanbul, 2018

Alp Çağrı Bilici

## ÖZET

### MARKA ALGISINDA İNOVASYONUN ÖNEMİ VE CEP TELEFONU PAZARI ÜZERİNE BİR ÇALIŞMA

Alp Çağrı Bilici

İşletme Yüksek Lisans Programı

Tez Danışmanı: DOÇ. DR. GÖZDEÖYMEN

Ekim 2018, 96 sayfa

Bugünün zorlu rekabet şartlarından dolayı birçok firma karlılığını sürdürebilmek ve/veya optimum büyüklüğe erişebilmek için yeni pazarlama stratejileri geliştirmek zorunda kalmışlardır. Bu konjonktürde avantaj sağlayabilmek ve müşteri ilişkilerini yürütebilmek, güçlü bir marka yönetimi gerektirmektedir. Ancak tüketicilerin zihninde sağlam bir marka algısı oluşturabilmek için firmaların, hızla gelişen teknolojiye ayak uydurarak, arz ettikleri ürün veya hizmetlerde inovatif çalışmalara da hız vermeleri gerekmektedir.

Bu çalışmayla, hızla gelişen cep telefonu pazarının, inovasyon ve marka algısı kavramları perspektifiyle analiz edilmesi amaçlanmaktadır. Bu doğrultuda, çalışmanın ilk bölümünde literatür taraması yapılarak inovasyon ve marka algısı kavramları araştırılmış, ikinci ve son bölümdeyse cep telefonu kullanıcıları ile yapılan anket çalışması ile elde edilen veriler sentezlenmiştir. Anket sonuçlarının analizi için güvenilirlik analizi, ANOVA ve T-Test uygulanmıştır. Yapılan analizlerin sonucunda ise tüketicilerin marka algısı üzerine inovasyonun önemli bir etkisi olduğu anlaşılmıştır.

**Anahtar Kelimeler:** Marka, Marka Yönetimi, Marka Algısı, İnovasyon, Cep Telefonu Pazarı

## ABSTRACT

### THE IMPORTANCE OF INNOVATION ON THE PERCEPTION OF BRAND AND A STUDY ON MOBILE PHONE MARKET

Alp Çağrı Bilici

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Due to today's challenging competitive conditions, many companies have to develop new marketing strategies to maintain their profitability and/or reach optimum growth. Having an advantage and coordinate the customer relations in this conjuncture require a strong brand management. But companies need to keep up the new technologies by improving innovative studies in their product or services in order to build a strong brand perception in the customers' mind.

With this study, it is aimed to analyze the fast-growing mobile phone market within the perspective of innovation and brand perception concepts. For this purpose, this study composed in two main sections: In the first section, innovation and brand perception concepts was researched as literature review and in the second section the results of the survey which conducted with the mobile phone users was analyzed. The data was analyzed by using reliability analysis, ANOVA and T-test was applied to the survey results. Findings of the study illustrate that innovation has an important effect on the brand perception of the consumers.

**Keywords:** Brand, Brand Management, Brand Perception, Innovation, Mobile Phone Market

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## **1. INTRODUCTION**

The century in which we are living is the era of technological developments and the future of the societies, companies and nations are depending on innovation. The processes of innovation affect all over life quality of the people more than before. (Tornatzky and Fleischer, 1990). The concept of innovation is related not only technological, but also a socio-economic terminologies and studied by many researchers over the last 30 years. (Gatignon et al., 2002; Damanpour, 1987). Accessing the information is getting easier in these days and the speed of innovation studies is getting faster accordingly. Thus, technologic development rapidly grows. Due to this conditions, innovation is become a necessity for the nations, companies and even individuals. From the economic aspect, it is clear that the only companies who can adapt themselves to the innovative environment will survive in the future. Therefore innovation is a vital concept for the sustainable economies.

The efforts for knowledge generation are an integral part of innovation. Organizations should generate, share and apply knowledge, in order for them to accelerate the innovation. (Hargadon and Beckhy, 2006). Another element of the innovation is creativity. It is the main factor of the success for an organization to create a competitive advantage. Collaboration of the knowledge among the individuals and job partners is the third element for the successful innovation. (Hargadon and Beckhy, 2006; Sawyer, 2006).

Since the technological advances change the conditions, such as decreased cost and increased efficiency of production, advertisement facilities, the competitiveness of the market is getting higher. Moreover the number of the rivals increased and profit margins of the companies decreased while the amount of demand remains stable. Under this circumstance market leaders developed new marketing strategies. Branding is one of these marketing strategies to make a strong positioning in the competitive market. Especially in today's environment, brands are getting more and more important since it makes a strong positioning and provide differentiation throughout the market. (Wood,

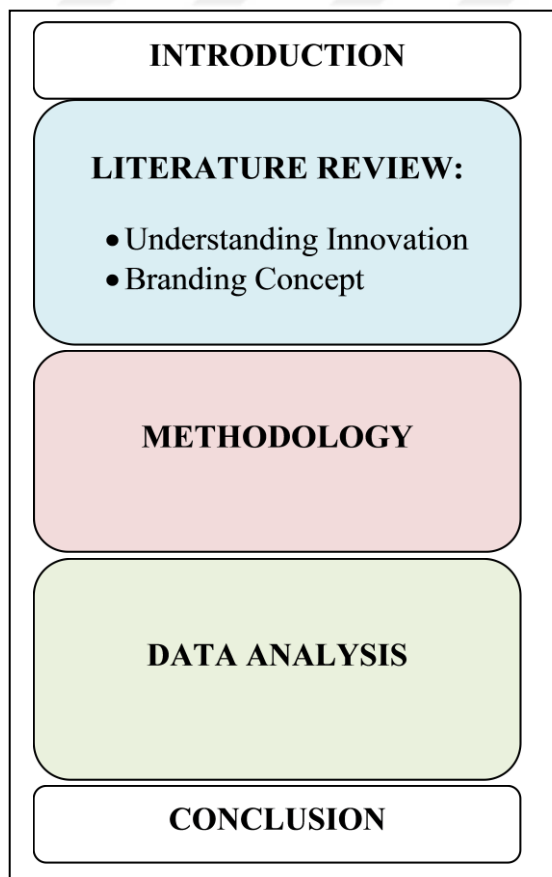
2000) This differentiation gives higher profit margins, makes the brand more competitive and better distribution channels, (Aaker, 1991; Stanton, Etzel and Walker, 1994, and Kotler and Armstrong, 2008). The success of a brand depends on the added value that the brand gives to a product, which is called "brand equity" (Aaker, 1991; Keller, 2008). Although branding is a marketing strategy, companies should feed their brand equity with the innovative products or services to create a continuous success. Otherwise the brand management will not be successful in the long term.

From this point of view, the relationship between innovation and brand management concepts are researched in this study. It was analyzed how innovation affect brand perception in the consumers' mind.

## **1.1 OUTLINE OF THE THESIS**

This study is written in three main parts: Literature Review, Methodology and Data Analysis.

**Figure 1.1: Structure of the thesis**



In the first part of the study, innovation and brand perception are explained as literature review. It begins with the explanation of innovation concept according to mainly accepted description of OECD in Oslo manual (OECD 2005, p.46) as implementation of a new or significantly improved products, services, process or methods. It was clarified that the core elements of innovation is “new” and “implementation”. It was also emphasized the importance of continuous innovation with the examples of Kodak, Nokia and many other brands. Later, types of innovation were investigated. Since there are many division of the concept in the literature, but mainly types mentioned by OECD were considered in this study, such as product, process, marketing and organizational innovations. Afterwards another marketing concept, which is “Product Life Cycle” was also referred to emphasize on the continuously innovation. As per the theory, every product has a limited life, such as introduction, growth, maturity and decline, and market leader companies must launch an innovative product into the market in order to maintain the leadership. Similar to the product life cycle, the innovation life cycle was also mentioned in this study since it helps the companies in the innovation process. Finally, the importance of innovation for the countries in the macroeconomic point of view was analyzed and the innovation systems compared between USA and Turkey.

In the first part, brand perception and concept was also investigated as the another argument of the thesis. In the beginning, the brand concept was clarified as the name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers. However there are a lot of studies describe brand, the definition of The American Marketing Association (AMA) was considered in this study. After defining, benefits and elements of brand were mentioned and relations with psychology were analyzed. The connection with the psychology which is the archetypes (personas) of the brand was expanded. As a conclusion, the concept of brand equity and its components were explained.

In the second and third part of this study, methodology was explained and the result of the data was analyzed. As it is explained in detail in chapter two and three, six hypotheses are defined. In order to investigate the hypotheses of the study, survey technique was used and 203 participants attended. For the methodology, mobile phone market selected as a sample market since it is one of the most competitive and

innovative market. The questions of the survey were especially designed to determine the participants' opinions, behaviors and perceptions about the brand loyalty, brand perception, innovation and creativity.

The main purpose of the design and structure of the survey is questioning if the consumers take the innovation into consideration or not on their buying decision and brand perception. Some questions were also asked in order to analyze the personalities of the participants for determining if the openness personality to the new experiences has an effect on the mobile phone brand decision or not.



## 2. LITERATURE REVIEW

### 2.1 INNOVATION CONCEPT

Today companies are operated with very different values unlike five years before. Speed is more important than stability and intangible assets are more valuable than tangible assets. Conventional economic models based on supply and demand are being reevaluated. Companies just realized that the new market opportunities are not only minimizing cost and increasing profits but are above all in *growing entirely new lines of revenue with innovative ideas*. (Gobe M.; 2001)

Innovation, which is one of the most popular concepts in modern economy, is being a part of our lives day by day. It is recognized as a crucial social and economic phenomenon by serious research studies. Companies are becoming more interested in discovering their ability to innovate, since they believe their future may depend on it. Also politicians care about it because of its importance for economic development. “However, to recognize that innovation is desirable because of its assumed beneficial effects is not sufficient in it. What is required is systematic and reliable knowledge about how best to influence innovation and exploit its effects to the full. Gaining such knowledge is the aim of innovation studies.” (Fagerberg, Martin & Andersen 2014, p:2).

#### 2.1.1 Definition of the Innovation

The etymology of “innovate” is a combination of “in” and “novus (new)”. The word means “introduce as new” from Latin “innovates” and past participle of innovare is “to renew, restore”<sup>1</sup>. Innovation concept has been defined in many studies. But the earliest description was made by Joseph Schumpeter as “a novel output, which reflected in: new products, new production techniques, new sources of the supply chain, new markets, and new ways of business organization” (Schumpeter, 1934, p. 66). Another economist, Peter F. Drucker (1985), defines innovation as “the specific function of entrepreneurship, whether in an existing business, a public service institution, or a new venture started by a lone individual in the family kitchen”. But today’s mostly

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<sup>1</sup> [www.etymonline.com](http://www.etymonline.com)

recognized definition of innovation was made by OECD in Oslo manual (OECD 2005, p.46) as “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations”. According to the manual, the essence of the innovation is that the product, process or method must be new (or significantly improved) to the firm. The new product, process and methods can first be developed by the firm, or adopted by the other companies or organizations (OECD 2005, p.46). The definition of OECD has accepted by majority of the scholars (Geldes, Felzensztein, and Palacios-Fenech, 2017) since it emphasizes both technical and non-technical aspects of the concept. (Schmidt and Rammer, 2007; Geldes et al. 2017).

Much of the progress in innovation has been funded and designed by governments to increase their military superiority. During the World War II, much technological advancement was achieved by government controlled research and development departments for military purposes, such as radar, aerospace, and new weapons. (Trott 2012, p.7) But after the wartime, those vehicles and devices began to be available for civilian use. Today’s world uses the word, ‘innovation’ as an economic term. With all of the technological improvements in informatics, telecommunication, and computer science, average people are now able to buy that technology and use it in their daily lives.

In this combination of events, supporting and funding of technological improvements has shifted from governments to enterprises, and innovative ideas are discussed for both the social and economic developments first. Because of this change, innovative ideas make the inventors rich and also make people’s lives easier and better. On the other hand, pursuing the original ideas is not so new idea itself. Life has not changed into the current state by chance. Since the primitive age, human beings have been trying to make a difference to survive against the wild world. “At any time in history there have been creative people around. Whether we consider Archimedes’ leap of imagination in the bath, the elegant solutions to the combination of space and weight that marked the medieval stonemason’s craft, Leonardo da Vinci’s eclectic skills or the vast outpouring of Victorian ingenuity, creativity has been a common thread. Until the 1900s, though,

creativity has been very much thought of as a gift. An inherent ability, rather than something that could be taught or improved on. As with so many other things, the legacy of the twentieth century has been to put the assumptions of the past into a different perspective (Clegg 1999, p.8).

Therefore, it can be easily said that the creativity is vital. But creating a new idea doesn't refer an action. It is a painful thinking, searching, interpreting state. It is an incubation process. During this process, the new idea can be born as a result of a research, after a hard brainstorm or in a moment.

### **2.1.2 Innovation and Creativity**

Although the words “creativity” and “innovation” are used interchangeably, points to different senses. Creativity is an essential building block for innovation. However, creativity is not enough by itself. A creative idea plus a successful implementation generates innovation (Bettina 2008). OECD in Oslo manual (OECD 2005, p.46), regards an implementation to be when a new or improved product is introduced on the market and a new processes, marketing methods or organizational methods are also implemented when they are brought into actual use in the firm's operations. Myers and Marquis, (1969) also distinguishes the innovation from the new idea or invention by defining the innovation as not only single action, but also a total process of interrelated sub processes.

Clegg B., (1999, pp.3-4) discusses that, if a company keeps itself innovative it can maintain its position in a competitive market where change is a constant. Inventor companies generally dominate the market but they often fail to continue the domination in the long term. For this reason, market leadership usually changes from firm to firm. Some companies occasionally have to exit from the market.

**Table 2.1: Examples of multiple changes in market leadership**

| Category        | Sequential leaders separated by commas                    |
|-----------------|-----------------------------------------------------------|
| Mobile Music    | Sony, Apple                                               |
| Internet Search | Gray's Wandex, AltaVista, Overture, Yahoo!, Google        |
| Video Games     | Magnavox, Atar, Nintendo, Sega, Sony, Microsoft, Nintendo |
| Microcomputers  | Altair, Tandy, Apple, IBM, Compaq, Dell, HP               |
| Browser         | Mosaic, Netscape, Internet Explorer, Google Chrome        |
| Word processing | IBM, Wang, Easy Writer, WordStar, WordPerfect, Word       |
| Light beer      | Trommer's, Gablinger's, Brau, Miller, Bud                 |

Source: Gerard J. Tellis, (2013) *Unrelenting Innovation: How to Build a Culture for Market Dominance*, Jossey-Bass Publications, USA

For example the mobile music was introduced to the market by Sony, which invented the 'Walkman,' however it was maintained by Apple's iPod. Similarly, film photography was dominated by Kodak; however the company declined, and subsequently went bankrupt when digital photography developed. This situation happens when the incumbent firms stop innovating. (Tellis 2013, pp.1-4). Table 2.1 summarizes the sequential market leaders.

### 2.1.3 Innovation Types

There are several perspectives explain the classifications of innovation. Many researchers' identifications differ by the organizational and environmental (institutional) factors (e.g., Zaltman, Duncan, and Holbek, 1973; Damanpour, 1988; Jansen, Van Den Bosch, and Volberda, 2005; Damanpour, Walker, and Avellaneda, 2009), nevertheless, three typologies of innovation accepted by majority which are administrative (non-technological) versus technical innovation; product versus process innovations, and radical versus incremental innovations (Damanpour, 1991). Non-technological innovation used in different terms such as management innovation (Birkinshaw, Hamel, and Mol, 2008), organizational innovation (Armbruster, Bikfalvi, Kinkel, and Lay, 2008), or managerial innovation (Damanpour and Aravind (2011)). Besides, there are various other types of innovations explained in the literature. For example, Tushman and Anderson (1986) suggest competence-destroying versus competence-enhancing innovations which are based on completely new knowledge, technologies or methods and developed products or services. Moreover, another categorization made as

autonomous innovations and systematic innovations (Chesbrough and Teece, 2002). In regard to the categorization made by Chesbrough and Teece (2002), autonomous innovation changes the product or services according to the company's existing system and systematic innovations change the company's existing system.

In addition to the above-mentioned classifications of innovation, scholars also divide it into the types according to the subject innovated. Schumpeter, J.A.(1934) who discussed the innovation as a way for economic development. According to his study, innovation was divided into five types:

- i. Launching the new product or a new features of an existing product;
- ii. Implementation of new production or sale methods of a product
- iii. Creating a new market
- iv. Acquisition of new sources for the production;
- v. Creating a new industrial organization

Tidd, Bessant and Pavitt (2005, p.10) also discuss the “4Ps” of innovation. They introduce the four subjects of innovation as followings:

- i. product innovation – changes in the things (products/services) which an organization offers;
- ii. process innovation – changes in the ways in which they are created and delivered;
- iii. position innovation – changes in the context in which the products/services are introduced;
- iv. paradigm innovation – changes in the underlying mental models which frame what the organization does

Similar to the 4Ps of innovation discussed by Tidd, Bessant and Pavitt, OECD (2005), so-called “Oslo Manuals” also distinguishes four different types of innovations:

- i. Product innovations,
- ii. Process innovations,
- iii. Marketing innovations,
- iv. Organizational innovations.

According to the Oslo Manuals, the introduction of a new or mainly improved good or service to the market called product innovation. If the change was done in production and delivery methods, it is classified as process innovation. Organizational innovation means a change in the implantation of new organizational methods, including new business processes, workplace organization, or the firm's external relations. Finally marketing innovations involve the practices of new marketing methods. This can be a different product design and packaging, product promotion and placement, and pricing methods.

#### **2.1.4 Management of Innovation**

The main core of a company is profit maximization and sustainable profitability. As it is discussed earlier in this study, the innovation is crucial in order to achieve these goals. But the organizational capabilities may differ from firm to firm, environment of the market changes in time, cost and prices can fluctuate. In this respect another vital decision trouble occurs: "how to innovate". For choosing an appropriate marketing strategy, executives consider which type of innovation should be used.

If a company prefers innovating on performance of an existing product, service, process, organization or method, it is called incremental innovations<sup>2</sup>. Incumbent companies are suggested incremental innovation to be in a better position since they can use existing knowledge and resources to leverage the whole process. (Trott 2012, p.213)

On the other hand, a radical innovation refers to a change in an existing product, service, process, organization or method which significantly affects a market and the economic activity of firms in that market. "This concept focuses on the impact of innovations as opposed to their novelty. The innovation could, for example, change the structure of the market; create new markets or render existing products obsolete" ([www.innovationpolicyplatform.org](http://www.innovationpolicyplatform.org)). New entrants constantly try this type of innovation in order to change the market and have a big advantage. (Trott 2012, p.213)

Deschamps and Nelson (2014, p.19) claims that "most companies tend to favor incremental innovations over more radical ones. This often reflects business managers'

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<sup>2</sup> [www.innovationpolicyplatform.org](http://www.innovationpolicyplatform.org)

perception that taking undue risk on a project will attract management's attention and, ultimately, disapproval.”

In the short term, large companies can stay competitive with the incremental innovation. But radical innovation transforms the relationship between customers and suppliers, restructures marketplace economics, displaces current products, and often creates entirely new product categories<sup>3</sup>.

### **2.1.5 Dynamics of Innovation**

After focusing on the concepts and types of innovation, the background of the concept will be analyzed from the dynamic perspective under this topic.

#### **2.1.5.1 Product life cycle**

Every product has a limited life. Since an innovative product launched in a market, it improves through a range of phases from introduction to decline. These stages are known as the product life cycle (PLC) and they affect the marketing strategy and the marketing mix.

The product life cycle theory was first introduced in 1950s to explain the expected life cycle of a typical product from design to obsolescence, a period divided into the phases of product introduction, product growth, maturity, and decline. The goal of managing a product's life cycle is to maximize its value and profitability at each stage. Life cycle is primarily associated with marketing theory<sup>4</sup>.

Kotler and Keller (2012) inferred the followings from this theory for the products and the market:

- i. Products have a limited life.
- ii. Product sales pass through distinct stages, each posing different challenges, opportunities, and problems to the seller.
- iii. Profits rise and fall at different stages of the product life cycle.

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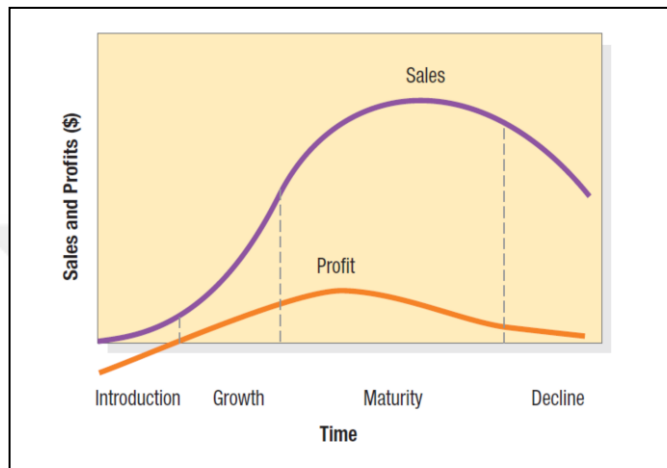
<sup>3</sup> hbswk.hbs.edu

<sup>4</sup> www.inc.com, 2017

- iv. Products require different marketing, financial, manufacturing, purchasing, and human resource strategies in each life-cycle stage.

Many of the product life-cycle curves are drawn as bell-shaped (see Figure 2.1.) and it is usually divided into four stages: introduction, growth, maturity, and decline.

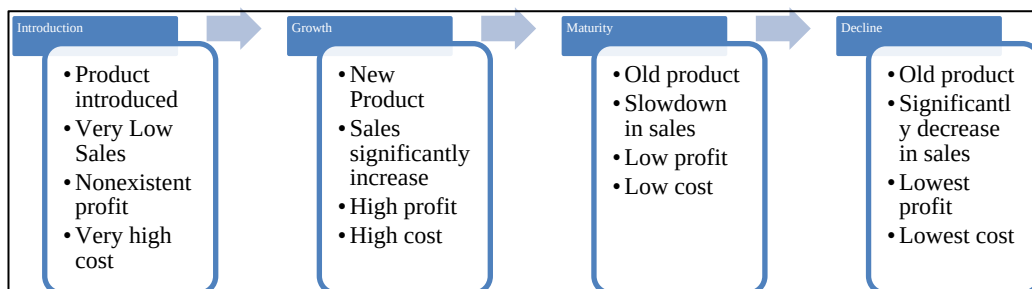
**Figure 2.1: Product Life Cycle**



Source: •Kotler P, Keller K.L. (2012), Marketing management, 14th Edition

In Introduction period, the new product is introduced to the market so very low sales level occurs. No profits are received because of the high costs. In the period of the Growth, market acceptance happens rapidly and the profit significantly increases. At Maturity level, a slowdown occurs in sales growth since the product succeeds in acceptance by most potential buyers. Profits stabilize or decline because of increased competition. And finally in the Decline period results a dramatic decrease in both sales and profits.

**Figure 2.2: The periods of life cycle**



Source: Adaptation from theory of Product Life-Cycle Kotler and Keller, 2012.

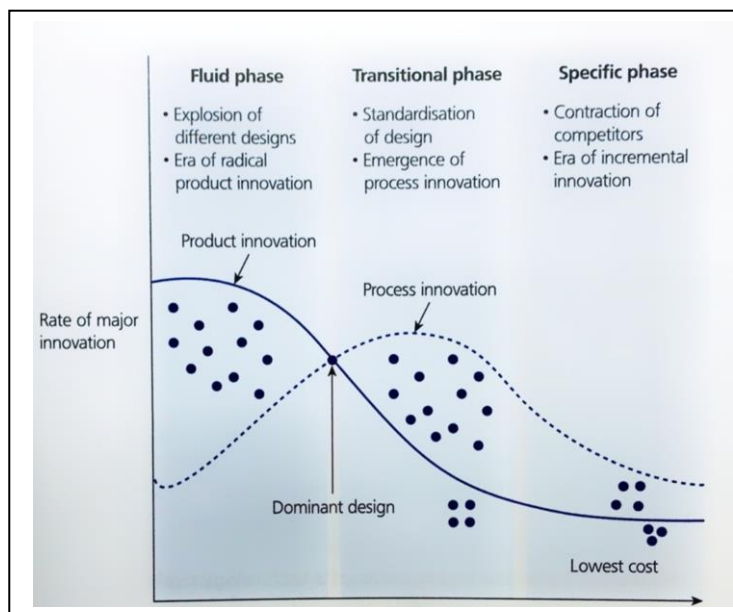
The innovative ideas works on this chart. When the new innovative idea becomes commercialise and the product or service enters the the market, the sales and the profit are at the increasing level untill the maturity stage. After declining period a new product of service must be innovated and entered to the market in order to achieve the sustainable development.

#### 2.1.5.2 Innovation life cycle and innovation phases

“The launch of an innovative new product into the market is usually only the beginning of technology progress. At the industry level, the introduction of a new technology will cause a reaction: competitors will respond to this new product, hence technological progress depends on factors other than those internal to the firm. We need to consider the role of the competition. Product innovation, process innovation, competitive environment and organizational structure all interact and closely linked together.” (Trott, 2012: P.210)

According to the model of the dynamics of innovation in an industry (Albernathy and Utterback, 1978), the innovation’s life cycle is divided in three phases: (a)-fluid, (b) transitional and (c) specific.

**Figure 2.3: Abernathy and Utterback’s three phases of innovation**



Source: (Trott, 2012: P.211)

The initial, or fluid, phase is characterized by a still immature technology with low performance, for which demand will consequently be low as well. Even though it is difficult to make a profit in this stage, the number of firms entering the industry is high and keeps growing, since the industry is viewed as very promising in perspective. (Cantamessa M. & Montagna F., 2015: P.61). During this fluid period of high product innovation, much less attention is given to the processes by which products are made, so the rate of process innovation is significantly less rapid. (Utterback, J., 1996, P: xviii). By the reason of no specialized materials are used in the production, suppliers have low bargaining power in this level. If the innovation was radical and competence-destroying, old technology and new entrance can be the major threat. Within the first period, each firm tries to overtake the competitors and establish its product as the “dominant design” to capture the allegiance of the customers. (Trott, 2012: P.210)

The dominant design defines the latest technical solutions, components and features (i.e., the architecture) that become widely accepted to be the “normal product” in that industry, overcoming other competing designs. (Cantamessa M. & Montagna F., 2015: P.62) After emerging the dominant design of a new product to the market, product innovation investments shift to process technology to reduce the production cost. (Ettlie, John E. 2006: P.66)

Thereafter, the fluidity period shifts to a transitional phase. In this period the rate of major product innovation slows down and the rate of major process innovations speed up. (Utterback, J., 1996) While this process continue, the lifecycle moves to the specific phase. In the specific period, firms try to decrease cost and produce better quality for the increasing demand. For this purpose companies focus on process innovation instead of product development. (Cantamessa M. & Montagna F., 2015: P.62)

#### **2.1.6 Innovation in a Macroeconomic Perspective**

“Innovation drives economic growth. This logic has risen to dominate the discourse in development circles, with government leaders, policy influencers, and development-

mind business leaders fully embracing innovation as a panacea for unemployment and economic underperformance”<sup>5</sup>.

This macroeconomic point of view, governments focus on the innovative initiatives nowadays. The more innovative enterprises start up, the wealthier economies becomes.

For the last twenty years, governments noticed the one of the important role of innovation in economic development. The increase in innovation capacities has supported the growth dynamics of the successful developing countries. Therefore, those countries recognized that innovation doesn't mean only high-technology products and they have to build innovation capacity early in the development process for having learning capacities (OECD, 2012: P.4)

Consequently countries adjust their legislations, economic policies and implementations for the innovative entrepreneurship. Governments encourage the new activities, institutions, foundations and researches.

As a result of a research by Massachusetts Institute of Technology (M.I.T.)<sup>6</sup>, entrepreneurs divided into two categories: innovative ones and traditional ones. The traditional entrepreneurship determined as small and medium sized family business companies (i.e. bookshops, coffee shops, e.t.c.) have less chance to survive in a long time and weaker. Besides, those have less contribution to the national economy.

There is also another research by M.I.T. Innovation Initiative about the empirical predictions about Relationship between Startup, Characteristics and Growth. According to the study, companies classified and predicted the future growth.

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<sup>5</sup> [www.hbr.org](http://www.hbr.org)

<sup>6</sup> Research by M.I.T. Innovation Initiative, Presentation by Catherine Fazio on 27.05.2016, Boston, USA

**Table 2.2: The Empirical Model: The Predicted Relationship Between Startup Characteristics and Growth**

|                                       | Change in the Probability of Growth |
|---------------------------------------|-------------------------------------|
| Has short name                        | 248%                                |
| Firm Named after Founder              | -70%                                |
| Corporation (Not partners"hip or LLC) | 405%                                |
| Trademark in First Year               | 501%                                |
| Patent and No Delaware Registration   | 3,53%                               |
| No Patent and Delaware Registration   | 4,47%                               |
| Both Patent and Delaware Reg          | 19,64%                              |
| Sectoral Controls                     | Included                            |
| State Controls                        | Included                            |

Source: M.I.T. Innovation Initiative, Presentation by Catherine Fazio on 27.05.2016, Boston, USA

As per the Table 2.2, “firms named after founder” which are supposed to be the traditional entrepreneurships are expected to change in the (-70%) of possibility of growth. Moreover the companies have not the patent and Delaware registrations evaluated similarly

In contrast, companies which are corporations, having short names, trademarks, patents and Delaware registrations assumed as not traditional and innovative entrepreneurships are expected more probability of growth in the future.

Therefore those kinds of companies have less impact on the national economy. That is why the innovative entrepreneurships are always favorable for the governments.

Innovation creates the more value to the country. Therefore one of the most important economic strenght of a country is its innovation position which is measured by The Global Innovation Index (GII). The GIi is calculated in two sub-indices—the Innovation Input Sub-Index and the Innovation Output Sub-Index—each built around key pillars.

Five input pillars capture elements of the national economy that enable innovative activities: Institutions, human capital and research, infrastructure, market sophistication, business sophistication.

Two output pillars capture actual evidence of innovation outputs: Knowledge and technology outputs, creative outputs.

Each pillar is divided into sub-pillars and each sub-pillar is composed of individual indicators (80 in total in 2018). Sub-pillar scores are calculated as the weighted average of individual indicators; pillar scores are calculated as the weighted average of sub-pillar scores<sup>7</sup>. According to the above mentioned calculations, Table 2.3 shows the comparison of the innovation rankings and economic growths of the countries.

**Table 2.3: Comparison of innovation rankings and economic growth of the countries**

| Rank | Economy                   | Score | Gross Domestic Product (US(\$)<br>billions) | GDP per capita<br>PPP\$ (US(\$)<br>thousand) |
|------|---------------------------|-------|---------------------------------------------|----------------------------------------------|
| 1    | Switzerland               | 68.40 | 516,65                                      | 61.421,82                                    |
| 2    | Netherlands               | 63.30 | 915,18                                      | 53.634,56                                    |
| 3    | Sweden                    | 63.10 | 521,69                                      | 51.474,80                                    |
| 4    | United Kingdom*           | 60.10 | 2.880,25                                    | 44.117,73                                    |
| 5    | Singapore                 | 59.80 | 513,74                                      | 93.905,50                                    |
| 6    | United States of America* | 59.80 | 19.362,13                                   | 59.501,11                                    |
| 7    | Finland                   | 59.60 | 242,44                                      | 44.332,60                                    |
| 8    | Denmark                   | 58.40 | 285,47                                      | 49.883,03                                    |
| 9    | Germany*                  | 58.00 | 4.149,57                                    | 50.425,15                                    |
| 10   | Ireland                   | 57.20 | 344,77                                      | 75.538,36                                    |
| 11   | Israel                    | 56.80 | 315,58                                      | 36.340,08                                    |
| 12   | Korea, Republic of        | 56.60 | 2.026,65                                    | 39.433,78                                    |
| 13   | Japan*                    | 55.00 | 5.405,07                                    | 42.831,52                                    |
| 16   | France*                   | 54.40 | 2.826,46                                    | 43.760,77                                    |
| 17   | China                     | 53.10 | 23.122,03                                   | 16.660,27                                    |
| 18   | Canada*                   | 53.00 | 1.763,79                                    | 48.265,25                                    |
| 31   | Italy*                    | 46.30 | 2.307,07                                    | 38.140,34                                    |
| 46   | Russian Federation*       | 37.90 | 4.000,10                                    | 27.834,09                                    |
| 50   | Turkey                    | 37.40 | 2.132,72                                    | 26.892,87                                    |

Source: The Global Innovation Index, 2018

\*: Member of G8 Countries

<sup>7</sup> <https://www.globalinnovationindex.org>

It can be inferred from the table that highly innovative countries have strong economies with high amount of GDP per capita. Some of the countries have higher GDP and GDP per capita. However economic growth is not only one indicator for innovation index. Those countries have also high scores in research and development.

**Table 2.4: Research and development rankings and scores**

| Research and development (R&D) |      |       |
|--------------------------------|------|-------|
| Country                        | Rank | Score |
| Switzerland                    | 2    | 80,20 |
| Netherlands                    | 12   | 65,82 |
| Sweden                         | 6    | 77,02 |
| UK                             | 11   | 68,80 |
| Singapore                      | 10   | 8,90  |
| USA                            | 4    | 78,92 |
| Turkey                         | 36   | 28,93 |

Source: The Global Innovation Index, 2018

Table 2.4 shows the research and development scores of top six innovative countries and Turkey. As it is seen that the countries with high scores of innovation also are in the top ten in research and development scores. As a highest scored country, Switzerland is also at the 2nd rank with 95,38 scores in Political environment, 5<sup>th</sup> rank with 95.93 scores in Regulatory environment, 11st rank with 88.94 scores in Institutions, 5<sup>th</sup> rank with 63.96 scores in human capital and research, 8<sup>th</sup> rank with 65.31 scores in infrastructure, 8<sup>th</sup> rank with 67,49 scores in market sophistication, 4<sup>th</sup> rank with 62,64 score in business sophistication and 1<sup>st</sup> rank with 74,88 in knowledge and technology outputs<sup>8</sup>.

### 2.1.7 The System of Innovation

Innovation starts at individuals. Questioning is the key point of the progress. That is why government's subventions are not enough for the encouragement or inventions. That is why the beginning of the innovation is the education institutes.

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<sup>8</sup> [www.globalinnovationindex.org](http://www.globalinnovationindex.org)

In United States, institutions undertook the main task. To understand the role of the universities, it would be better to know how they present themselves in their missions.

Stanford University<sup>9</sup> describes themselves as “a place for learning, discovery, innovation, expression and discourse”. Another institute of the United States, The Massachusetts Institute of Technology<sup>10</sup> states its mission as “The Institute is committed to generating, disseminating, and preserving knowledge, and to working with others to bring this knowledge to bear on the world's great challenges.” Harvard College<sup>11</sup> also declared its mission as “beginning in the classroom with exposure to new ideas, new ways of understanding, and new ways of knowing, students embark on a journey of intellectual transformation.”

The statements are not enough to demonstrate how innovative universities are they, to see the statistics would be better. According to the ranking by Reuters<sup>12</sup>, eight universities from United States is among the top ten innovative universities in the world.

Besides, US Department of Health and Human Services (HHS) is on the top of the research of The World's Most Innovative Government Institutions by Clarivate Analytics<sup>13</sup>.

The complete system called The National Innovation System (also NIS, National System of Innovation) is the flows of knowledge between the people, enterprises and institutions which is key to the innovative process on the national level. As per the theory of the system, “innovation and technical progress are the result of a complex set of relationships among actors producing, distributing and applying various kinds of knowledge.” (OECD 1997, P:9)

The dominant idea in the United States is supporting free market to maximize innovation and productivity (Rosenthal, 1993). Therefore the United States, the

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<sup>9</sup> <https://www.stanford.edu>

<sup>10</sup> [web.mit.edu](http://web.mit.edu)

<sup>11</sup> [college.harvard.edu](http://college.harvard.edu)

<sup>12</sup> [www.reuters.com](http://www.reuters.com)

<sup>13</sup> [www.clarivate.com](http://www.clarivate.com)

innovation system focuses on the most efficient allocation of resources in the market with minimal possible intervention instead of providing extensive supports and subsidies. (Trott, 2012: P.52)

The Innovation system of the United States differs from the other nations by large size, diversity, federal structure, and competitive orientation. The US federal government supports innovation through infrastructure development and addresses framework measures such as the intellectual property regime, regulation of financial markets, and interstate commerce. The federal government generally sponsors innovation indirectly; however it rarely does directly policy and programmatic initiatives. (Shapira P & Youtie J. 2010)

As Atkinson R.D. (2014) called “innovation success triangle”, the national innovation system of United States works with three factors:

- i. the business environment,
- ii. the regulatory environment,
- iii. the innovation policy environment.

Atkinson R.D. (2014) emphasizes those three factors as following:

*“The nation that can put together all three sides of the innovation success triangle most effectively is likely to be the nation that wins the race and reaps the rewards in greater economic vitality and prosperity. Thus, the challenge for the United States going forward is whether it can make the needed changes to its innovation system to meet the new competition. Our economic future will depend on the answer.”*

He explain that the business environment, which is consist of market and firm structure and behavior, the system works for financing the business, related social and cultural factors also affecting how business operates are important elements. In financial system the American Research and Development Corporation have been pioneering. Besides hundreds of private venture capital firms across the nation analyze and fund investment opportunities. There is also a strong “angel capital” system in the United States made up of private individuals of high net worth who invest money into entrepreneurial, high-growth companies.

The second factor of the triangle which is regulatory environment also has an important role for the US system through the broad areas of trade, tax and regulatory policy that shape the innovation environment. In order to strengthen the market competition, the system United States stands on the minimum barriers for new entrants to the market.

Unlike the policies shaping the overall environment for innovation, the policies especially designed to stimulate innovation called Innovation Policy environment. Those policies are consists of direct funding of research in universities and research labs/institutes, federal labs, university researches, technology transfer systems and research in business.

#### **2.1.8 Innovation in Turkey**

Some studies such as Akcigit U, Grigsby J & Nicholas T. (2017) indicate that US innovation system is going down compare to before and need some reviews as well. This means that technological leadership is not guaranteed. As Trott, (2012: P.57) explains that the south-east Asia is the proof in this regard.

According to Trott, (2012: P.58) all late industrializing countries including Turkey were raw material exporters and high technology importers and he states that the key of the success is transformation from low technology sectors to higher-value-added and heavy industries. In order to succeed in this transformation, those countries used import-substituting industrialization (ISI) and export oriented (EOI) economic policies. Author states that Asian economies could succeed on the change in their economic policies to export oriented from the beginning level of import substituting industrialization.

After this success experience, like other emerging countries, Turkish governments and business environment are nowadays trying to introduce the innovation concept to the Turkish economy. The Scientific and Technological Research Council of Turkey (TUBITAK) is pioneering the management, funding and conduct of technological research studies in Turkey<sup>14</sup>.

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<sup>14</sup> <https://www.tubitak.gov.tr/en>

In addition to TUBITAK, Turkish Exporters' Assembly (T.I.M.) makes annually innovation weeks to encourage the individuals and companies. The TIM also makes activities, projects and contests during these periods<sup>15</sup>. They organize an innovation league for the competition of the companies<sup>16</sup>.

The TIM creates teams (InnovaTim) with two thousand students from the the most innovative and the most entrepreneur universities for education purpose<sup>17</sup>.

According to The Global Innovation Index 2018, Turkey in the 50th ranking with 37,40 score. In 2017 the ranking was 43 with 38,90 score. However small fluctuations occur in ranking and the score year by year, in the long term Turkey needs structural changes in order to take place in the higher rankings. Table 2.4 shows the rankings annual.

**Table 2.5: Ranking and Score of Turkey in Innovation Index year by year**

| <b>Rank</b> | <b>Score</b> | <b>Year</b> |
|-------------|--------------|-------------|
| 50          | 37.40        | 2018        |
| 43          | 38.9         | 2017        |
| 42          | 39.0         | 2016        |
| 58          | 37.8         | 2015        |
| 54          | 38.2         | 2014        |
| 68          | 36.0         | 2013        |

Source: Global Innovation Index

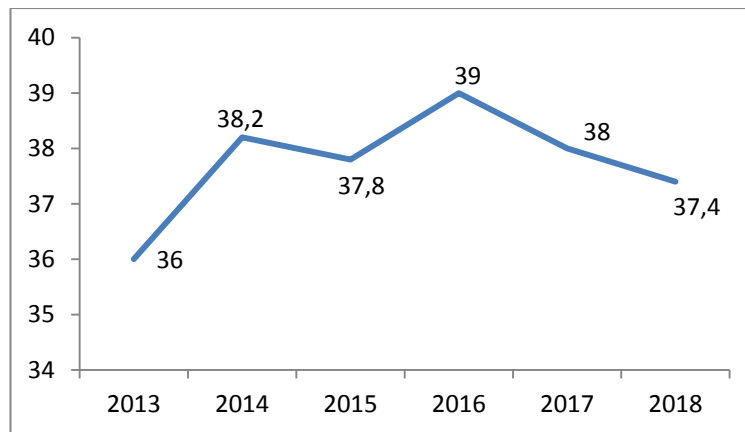
Figure 2.5 illustrates Turkey's annual innovation between 2013 and 2018

<sup>15</sup> [www.turkiyeinovasyonhaftasi.com](http://www.turkiyeinovasyonhaftasi.com)

<sup>16</sup> [www.inovalig.com](http://www.inovalig.com)

<sup>17</sup> [www.inovatim.org](http://www.inovatim.org)

**Figure 2.4: Global Innovation Index of Turkey**



Source: Adaptation from Global Innovation Index results.

The last research by OECD about Turkey shows that performance of national science and innovation systems in 2014 shows that Turkey is below average amount OECD countries in many issues.

**Table 2.6: Performance of national science and innovation systems, 2014:  
Competences and capacity to innovate**

| Competences and capacity to innovate |                                                     |     |   |
|--------------------------------------|-----------------------------------------------------|-----|---|
| Universities and public research     | Public R&D expenditure (per GDP)                    | (a) | Δ |
|                                      | Top 500 universities (per GDP)                      | (b) | ○ |
|                                      | Publications in the top-quartile journals (per GDP) | (c) | ○ |
| R&D and innovation in firms          | Business R&D expenditure (per GDP)                  | (d) | Δ |
|                                      | Top 500 corporate R&D investors (per GDP)           | (e) | Δ |
|                                      | Triadic patent families (per GDP)                   | (f) | ○ |
|                                      | Trademarks (per GDP)                                | (g) |   |
| Innovative entrepreneurship          | Venture capital (per GDP)                           | (h) |   |
|                                      | Young patenting firms (per GDP)                     | (i) |   |
|                                      | Ease of entrepreneurship Index                      | (j) | ○ |

Country relative position: (▲) in the middle range on par or above OECD median,  
(Δ) in the middle range below OECD median  
(○) in the bottom 5 OECD or below

Source: OECD (2014), “Turkey”, in OECD Science, Technology and Industry Outlook 2014

The tables 2.4 and 2.5 shows that only “Industry financed public R&D expenditure (per GDP)” is in the in the middle range above OECD median in Turkey. On the other hand, “Public R&D expenditure (per GDP), Business R&D expenditure (per GDP), Top 500

corporate R&D investors (per GDP), and Tertiary education expenditure (per GDP)” issues are in the middle range below OECD median. But the rest of the competencies, capacities, interactions and skills for innovation are still in the bottom 5 OECD or below.

**Table 2.7: Performance of national science and innovation systems, 2014:  
Interactions and skills for innovation**

| Interactions and skills for innovation                                    |                                                         |     |   |
|---------------------------------------------------------------------------|---------------------------------------------------------|-----|---|
| Information & Communication Technology (ICT) and Internet infrastructures | ICT investment (per GDP)                                | (k) |   |
|                                                                           | Fixed broadband subscribers (per population)            | (l) | ○ |
|                                                                           | Wireless broadband subscribers (per population)         | (m) | ○ |
|                                                                           | E-government readiness index                            | (n) | ○ |
| Networks, clusters and transfers                                          | Industry financed public R&D expenditure (per GDP)      | (o) | ▲ |
|                                                                           | Patents filed by universities and public labs (per GDP) | (p) | ○ |
|                                                                           | International co-authorship (%)                         | (q) | ○ |
|                                                                           | International co-invention (%)                          | (r) | ○ |
| Skills for innovation                                                     | Tertiary education expenditure (per GDP)                | (s) | Δ |
|                                                                           | Adult population at tertiary education level (%)        | (t) | ○ |
|                                                                           | Top adult performers in technology problem solving (%)  | (u) | ○ |
|                                                                           | Top 15 year-old performers in science (%)               | (v) |   |
|                                                                           | Doctoral graduate rate in science and engineering (%)   | (w) | ○ |

Country relative position: (▲) in the middle range on par or above OECD median,  
(Δ) in the middle range below OECD median  
(○) in the bottom 5 OECD or below

Source: OECD (2014), “Turkey”, in OECD Science, Technology and Industry Outlook 2014

These results and reports show that Turkey is still in need of many developments for the above mentioned issues. Without improving research and development expenditures, business and government environment and education cases, the innovation will not be so fast.

### 2.1.9 Firm-Level Innovation

Researches about innovation shows that different organizational factors affect company’s innovation output (Damanpour, 1991). Especially internal resources of the company are the important determinants of innovation. (Klette and Kortum, 2004). On the other hand, firm level resources and capabilities are also considered as important factors for the innovation performance of the company. (Barney, 2001, Teece, Pisano,

and Shuen, 1997). From this point of view, effective use of capabilities and resources of the company plays an important role to stay competitive. (Teece et al. 1997). However those resources must be “valuable, rare, inimitable and non-substitutable” (VRIN) in order for the company to have a competitive advantage in the market. (Barney, 2001)

As Govindarajan V. and Srinivas S. (2013) indicate that innovative companies provides a lot of benefits. According to them, innovative companies provide forums for employees to pursue opportunities, create an innovative environment, create systems, structures, and work environments, focus on the right set of outcomes, have strong mechanisms to ensure a continuing focus on expanding the pie, by effectively converting non-consumers into consumers, and providing richer solutions to current consumers<sup>18</sup>.

#### **2.1.9.1 The most innovative companies**

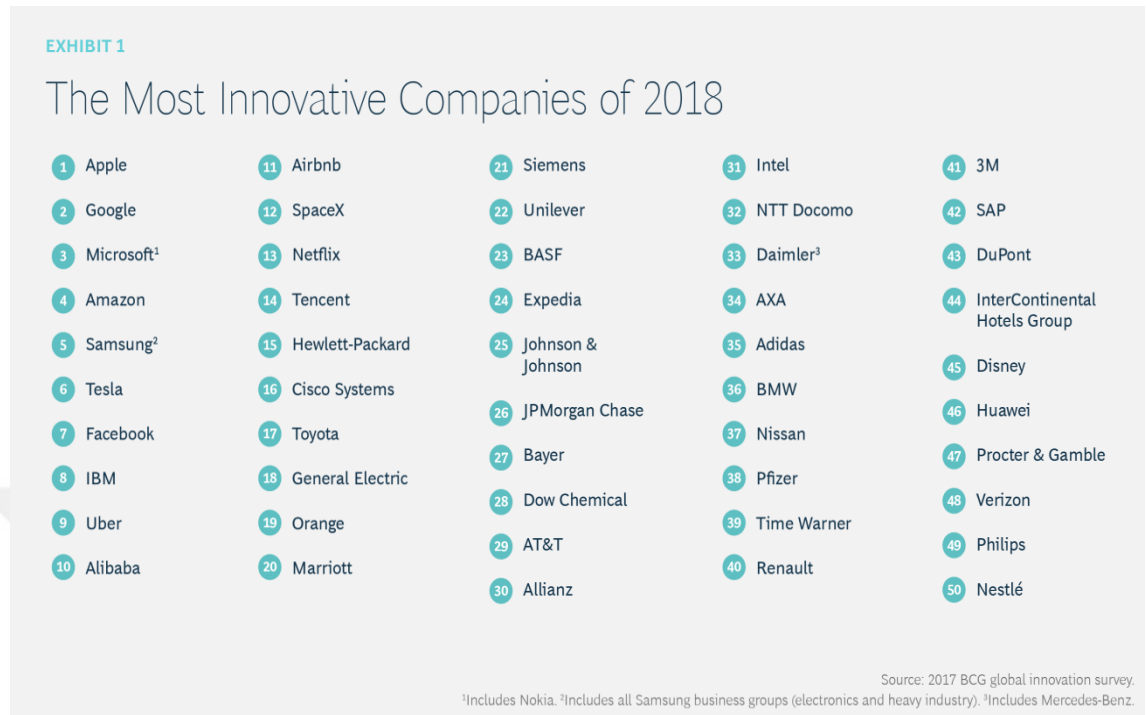
Boston Consulting Group (BCG) has been publishing innovation reports of the companies every year. Their annual ranking of the most innovative companies is based on a survey of senior executives who represent a wide variety of industries in every region worldwide and on an analysis of select financial metrics. According to the report in 2018, Apple is the most innovative company in the world followed by respectively Google, Microsoft, Amazon and Samsung. (Figure 2.5). At the leading innovators, R&D and new-product development have become digital endeavors. Most, if not all, of the others on the list have built digital technologies into their innovation programs. The trend is pervasive across industries, penetrating what were heretofore the most stolid and conservative businesses<sup>19</sup>.

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<sup>18</sup> [www.hbr.org](http://www.hbr.org)

<sup>19</sup> [www.bcg.com](http://www.bcg.com)

**Figure 2.5: The Most Innovative Companies of 2018**



Source: Boston Consulting Group (BCG)

The results of the report shows that North America remains the most highly represented region, with 27 companies and Europe strengthened its showing substantially with 16 entrants, up from 10 in 2016. The travel and transportation sector has expanded its presence as some companies—including Uber, Airbnb, and SpaceX—demonstrate the disruptive potential of digital technologies and digital business models wielded in combination<sup>20</sup>.

The report also indicates that the importances of four types of innovation, which are related to the digitalization, have increased since 2014 and are being followed by more companies: big data analytics, the fast adoption of new technologies, mobile products and capabilities, and digital design (Figure 2.6)

<sup>20</sup> [www.bcg.com](http://www.bcg.com)

**Figure 2.6: Expectations about areas of innovation and product development**



Source: Boston Consulting Group (BCG)

### 2.1.9.2 Mobile phone innovations

Since the invention of the first mobile phone system by Motorola in 1973, the mobile phone industry has been one of the most innovative sectors<sup>21</sup>. After launching the first cell phone of “Motorola DynaTAC 8000x” into the market in 1983, some other telecommunication brands entered to the mobile phone industry, such as Nokia, Siemens and Ericsson. The first milestone in the industry was mobile data revolution in 2003 which was the implementation of 3G. It took download speeds up to 2MBS in March 2003 with "3" the first to offer the service in the UK. With this progress, BlackBerry devices were getting popular in business for data transfer<sup>22</sup>.

**Table 2.8: The evolution of the mobile phones**

| Year | Brand      | Model        | Dimension (inches) | Screen Density (pixels per inches) |
|------|------------|--------------|--------------------|------------------------------------|
| 1983 | Motorola   | DynaTAC      | > 14               | < 100                              |
| 1999 | Nokia      | 3210         | < 6                | < 100                              |
| 2004 | Blackberry | 7730         | < 6                | 200                                |
| 2005 | LG         | C2500        | < 4                | 200                                |
| 2006 | Samsung    | ZV50         | > 6                | 300                                |
| 2007 | Motorola   | RAZR2        | > 6                | 300                                |
| 2007 | Apple      | Iphone       | > 4                | 300                                |
| 2011 | Samsung    | Galaxy Note  | < 6                | 400                                |
| 2012 | Samsung    | Galaxy S III | < 6                | 400                                |
| 2018 | Apple      | iPhone XS    | < 6                | > 400                              |
| 2018 | Samsung    | Galaxy S9    | < 6                | > 400                              |

Source: Adoption from [www.theatlantic.com](http://www.theatlantic.com)

The second milestone in the industry was the launch of iPhone smart phones into the market. iPhone devices changed the mobile phones in both shape and software<sup>23</sup>.

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<sup>21</sup> [www.theatlantic.com](http://www.theatlantic.com)

<sup>22</sup> [www.tigermobiles.com](http://www.tigermobiles.com)

<sup>23</sup> [www.theconversation.com](http://www.theconversation.com)

**Table 2.9: Annual smart phone innovations of Samsung and Apple**

| Year | Apple                     | Samsung                                        |
|------|---------------------------|------------------------------------------------|
| 2007 | iPhone 1                  | -                                              |
| 2008 | iPhone 3G                 | -                                              |
| 2009 | iPhone 3Gs                | -                                              |
| 2010 | iPhone 4                  | Galaxy S                                       |
| 2011 | iPhone 4s                 | Galaxy S2                                      |
| 2012 | iPhone 5                  | Galaxy S3                                      |
| 2013 | iPhone 5s, iPhone 5c      | Galaxy S4                                      |
| 2014 | iPhone 6, iPhone 6 Plus   | Galaxy S5                                      |
| 2015 | iPhone 6S, iPhone 6S Plus | Galaxy S6, Galaxy S6 Edge, Galaxy S6 Edge Plus |
| 2016 | iPhone SE, iPhone 7       | Galaxy S7, Galaxy S7 Edge                      |
| 2017 | iPhone X                  | Galaxy S8, Galaxy S8 Plus                      |
| 2018 | iPhone XS, XS Max and XR  | Galaxy S9                                      |

Source: [www.techaeris.com](http://www.techaeris.com)

Since revolution of the smart phone by Apple, Iphone devices has been the most innovative brand in the mobile phone industry<sup>24</sup>. In 2010 Samsung launched Galaxy S smart phones to compete with Apple. After launching Galaxy smart phones, Samsung become the biggest rival of Apple. (Table 2.8)

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<sup>24</sup> [www.forbes.com](http://www.forbes.com)

## **2.2 BRAND PERCEPTION**

Today's economy is much more competitive than even ten years ago. It is a fact that there are a lot of enterprises started up in the world and surviving among the rivals has been getting harder for any business. Therefore companies started to create their own strategies to sustain the profitability. Those strategies can be related to finance or marketing but finance, operations, accounting, and other business functions won't really matter without sufficient demand for products and services so the firm can make a profit (Kotler P. & Keller K. L., 2012, P:3)

In the modern market, companies are trying to create the customer loyalty for the company, product or service to protect or increase the demand amount they have. Building customer loyalty gives a high return on the time, effort and money invested in providing good customer service. Loyal customers buy more, more regularly, and the cost of selling to them is low. And they will frequently recommend your business to other<sup>25</sup>.

Yet building customer loyalty is not easy process. It requires long period of time and extra costs. For this reason, just before the customer loyalty, building strong brands is essential.

### **2.2.1 Definition of the Brand**

The word of brand means "fire, flame, destruction by fire; firebrand, piece of burning wood, torch." Meaning "iron instrument for branding" is from 1828. Meaning "mark made by a hot iron" (1550s), especially on a cask, etc., to identify the maker or quality of its contents, broadened by 1827 to marks made in other ways, then to "a particular make of goods" (1854). Brand-name is from 1889; brand-loyalty from 1961<sup>26</sup>.

Today's meaning of the brand comes from stamping. In the ancient ages, farmers were stamping the livestock that they owned and the word was used as a means of distinguishing between the cattle of one farmer and another. Therefore, reputable

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<sup>25</sup> [www.marketingdonut.co.uk](http://www.marketingdonut.co.uk)

<sup>26</sup> [www.etymonline.com](http://www.etymonline.com)

farmers with their high quality animals was sought and the rest of the farmers with a lesser reputation were preferred less. So the utility of brands as a guide to choice was established, a role that has remained unchanged to the present day. (Blackett T., 2004 pp. 13-14). From this perspective, brand is a promise of performance and guarantee of authenticity. (Batey M. 2008, pp. 3-4)

The American Marketing Association (AMA) defines a brand as “name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers”<sup>27</sup>.

Kotler and Keller (2012, p.241) extend the brand definition as “a product or service whose dimensions differentiate it in some way from other products or services designed to satisfy the same need.” For them, these differences may be functional, rational, or tangible—related to product performance of the brand. They may also be more symbolic, emotional, or intangible—related to what the brand represents or means in a more abstract sense.

According to Abrahams D. (2008), a brand is not a trademark or a reputation. It is the sum of all information about a product, a service or a firm that is communicated by its name. Therefore, branding goes way beyond just a logo or graphic element. When you think about your brand, you really want to think about your entire customer experience everything from your logo, your website, your social media experiences, the way you answer the phone, to the way your customers experience your staff. When you look at this broad definition of branding, it can be a bit overwhelming to think about what is involved in your brand. In short, your brand is the way your customer perceives you<sup>28</sup>.

In order to study the brand definition, it is also important to consider the differences between a product and a brand. Batey M. (2008) distinguishing two concepts as follows:

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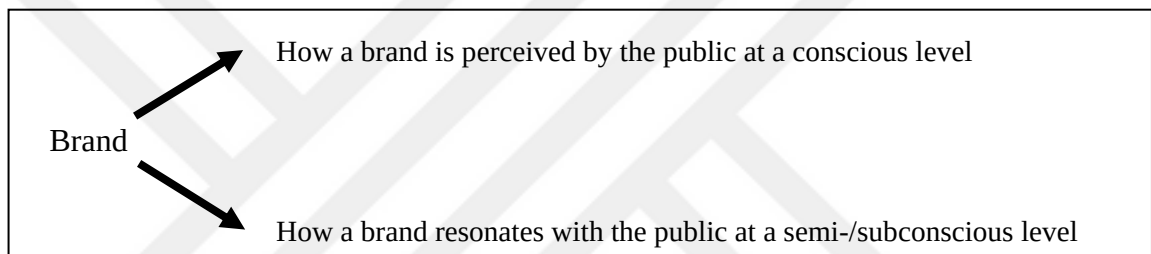
<sup>27</sup> [www.ama.org](http://www.ama.org)

<sup>28</sup> [strategynewmedia.com](http://strategynewmedia.com)

- i. You buy a product for what it does, you choose a brand for what it means
- ii. A product sits on retailers' shelves; a brand exists in consumers' mind
- iii. A product can quickly be outdate, a brand is timeless
- iv. A product can be copied by a competitor; a brand is unique

A product can be also a brand if the physical product is enhanced by images, symbols, perceptions, feelings etc. in order to generate a value more than the sum of its parts. A brand can be a single or multiple products; but at its core there remains a soul, a distinctive identity and image that resonates with its consumers and transcends its physical representation in terms of product format. (Batey M, 2008)

**Figure 2.7: Brand Meaning**



Source: Batey M, 2008

The brand determines consumer behavior by mediating between products and the customers's motivation. The brand is determined by how it is perceived by the people at a conscious level and how it resonates with them at a semi or subconscious level. (Batey M, 2008.)

### **2.2.2 Elements of the Brand**

Brand elements are the visual and sometimes even physical devices that serve to identify and differentiate a company product or service. All the brands elements should be available, meaningful, memorable, protectable, future oriented, positive, transferable. (Kotler P.; 2006). These are the components that make up the brand. For the successful and effective brand management brand elements should be memorable, meaningful, likable, transferable, flexible and protectable (Keller, 2008).

- i. *Brand Name*. It refers to the word or words used to identify the company, product, service or concept<sup>29</sup>. Name is the most important element of the brand because consumers are willing to pay more for the brand marked with these names. Names should be descriptive, suggestive, metaphors, arbitrary, acronym or with no connection. It should be easy to remember, write and say.
- ii. *Brand Logo*. Logo is the visual trademark that identifies the brand. It can be words, letters, pictures or images. Logos are very effective on brand awareness and brand image.
- iii. *Brand Slogan*. It is the summary the promise of the brand and tells it to the customers easily.
- iv. *Brand Character*. A real or an imaginary character that helps express brand easily.
- v. *Packaging and Label*. These elements are important for the brand promotion and explaining the about product characteristics or differentiate the product to make it easier to handling or transporting it.
- vi. *Jingle*. In order to increase the brand awareness, slogan with a music is one of the important element that can be used in brand communications.

### **2.2.3 Benefits of the Brand**

Branding is one of the ways of marketing which is a creative discipline. And in creative fields, when somebody produces a radical new way of doing things, many others tend to copy – especially if it is high profile, generates lots of publicity, wins awards and so on Grant J. (2006). Building a brand is basically describing the company, product or service in a short way. Before to describe, you must know very well what to identify. This process provides awareness of the values of the subject. By doing this, the executives start to know their strengths and weakness of the matter and also the market and act accordingly. On the other hand, consumers don't need a deep research for a product. Just knowing the brand and its commitments of the quality is enough. For example, most of people may not know technological specifications of computers, mobile phones or automobiles. But basic information about the brands helps what to choose for our satisfaction. As Keller (2013, p:34) discussed in his study, consumers do

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<sup>29</sup> elementthree.com

not need to spend time for product design if they know a brand have some information (i.e. quality, product characteristics) about it. So brand allow consumers reduce the cost of the search of the product that they need.

What consumers perceive a firm is the brand the company has. Thus a strong brand gives companies lots of advantages. Only some of them are mentioned below. First of all, a strong brand brings reputation to the company. This reputation effects business; creates value, increase the sales. It helps the firm in any phase of production, sales or marketing. Because of the recognition the brand have, company will gain advantage among the rivals. In order to increase the productivity, company can hire qualified employees; can get negotiation power to reduce the row material cost or arrange the payment terms or even design the market<sup>30</sup>.

Another benefit of branding is customer loyalty. One of the most important rules in marketing is maintaining the purchases. To achieve this, many of the companies spending millions of USD on the customer loyalty. As it is mentioned before, brands' reputation is related to the emotions the most. Brands make people feel good when they buy the product and satisfied when they consume. The satisfaction causes loyalty and so sustainability. Customer loyalty also may increase the sales by the current customer's referrals<sup>31</sup>.

**Figure 2.8: Brand as a focal point.**



Source: Abrahams D. 2008.

<sup>30</sup> [www.strategynewmedia.com](http://www.strategynewmedia.com)

<sup>31</sup> [www.fool.com](http://www.fool.com)

Brands trigger the demand of the company's offerings and desire by others to associate with (or disassociate from) the company. As it is shown by figure 2.8, this situation provides brands focal points not only for the company's customers, but also for other stakeholders and audiences: employees, partners, investors, regulators and communities. (Abrahams D. 2008, pp. 17-18)

A brand unavoidably creates a value and maintain it if it is positively or negatively. According to Abrahams D (2008) a fully functioning brands create value in a number of ways:

- a. *Mature markets.* Strong brands reduce risk of decrease in future demand by differentiating, building barriers against the rivals and minimize the effects of any decrease in prices.
- b. *New markets.* Branding helps to expanse into the new markets and new channels. It decreases the cost for building awareness of existing brand in the new market.
- c. *Employees.* Brands attract new employees, build their commitment and direct their performance. It helps to decrease recruitment costs.
- d. *Terms of trade.* Brand affects bargaining power in cost of capital, material supply terms, strong negotiation with distributors and distribution of risk in joint ventures.
- e. *Licence to operate.* Brands strengthen or protect the organisation's freedom to operate by projecting and substantiating its response to the expectations of regulators and communities.
- f. *Disaster recovery.* Strong brand supports business continuity efforts if disaster strikes, giving customers, employees and investors credible reassurance that full business recovery is a realistic prospect. (Abrahams D. 2008, pp.18-19)

From the consumers' perspective, benefits of the brand show how it works on resolving problems, suggestions for any opportunities or ease, fun, joy and meaningfulness. According to Batey M. (2008) benefits of the brand can be differentiated to motivate brand purchase and strong brands often provide different types of benefits which can be functional, sensorial, expressive or emotive.

- i *Functional Benefits*. Many of the brands offer this kind of benefits as the functional utilities of one or more products. It is easy to copy by imitation or providing same utility in a different format.
- ii *Sensorial Benefits*. This benefit is related to the physical experience of the brand and arise from its sensorial characteristics, such as its appearance, taste, smell, texture etc.
- iii *Expressive Benefits*. The brands that help to their consumers to express certain values, contributing to a sense of identity offer expressive benefits.
- iv *Emotional Benefits*. They are positive feelings of the consumers during purchase or use of the brand. Emotional benefits are the feelings of the consumers when they are buying or using the brand. These benefits usually respond to deep human needs human needs such as the need to be cared for or the need to give and receive love.

Batey M. (2008) classifies the brand's functional and sensory benefits as physical characteristics and perceivable elements of the product, in contrast emotional and expressive benefits as psychological and emotional aspects of the consumer. Expressive and emotional benefits are symbolic attraction of the brand and they look similar though, they are not the same.

Aaker (1996) distinguishes expressive benefits from emotional benefits on the following points:

- a. Self rather than feeling
- b. Public settings and product rather than private ones
- c. Aspiration and the future as opposed to memories of the past. (Some brands provide warm feelings of nostalgia – an emotional, not expressive, benefit.) Aspiration and the future usually have to do with the person I would like to be (come), so expressive benefits are more relevant.
- d. The permanent (something related to and individual's personality) rather than the transitory

- e. The act of using the product (wearing a cooking apron declares one as a gourmet cook) rather than a consequence of using the product (the feeling of pride and satisfaction from preparing and serving a well-appointed meal)

#### **2.2.4 Branding and Psychology**

Many studies focus on the financial aspects of the brand. But branding is also connected with the psychology. Since it affects the behaviors of people, it is also an issue of the marketing studies. Thus, emotions of the consumers affect the product choice.

##### **2.2.4.1 Consumer behaviors**

Buying is a problem solving process for the customers and there are three steps follows:

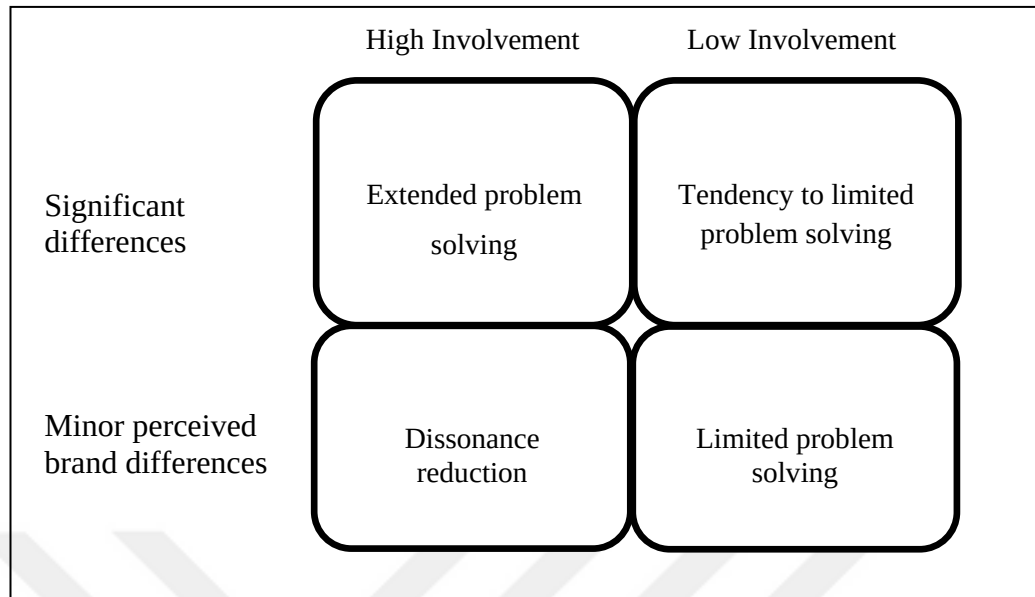
- i. be aware of the problem,
- ii. researching information about the product or services
- iii. evaluating the information and making a decision

Success depends on understanding the way purchasers interact with brands and employing company resources to match these needs. (De Chernatony L. 2003) For this reason market researchers have been studying a lot on it.

Traditional models of consumer behaviors assume that the emotional evaluation is driven by cognition while emotion mediates behavior. But the major opposition to this idea by Zajonc (1980) claims that the emotion is a separated processing system and effects preferences and sometimes cognition.

As De Chernatony L. (2003) explains the consumer's buying process with two factors: one is the the extent of customers' involvement in the brand purchase and the second is their perception of the differences between the rivals. He also clarifies this process with a matrix shown in figure 2.9.

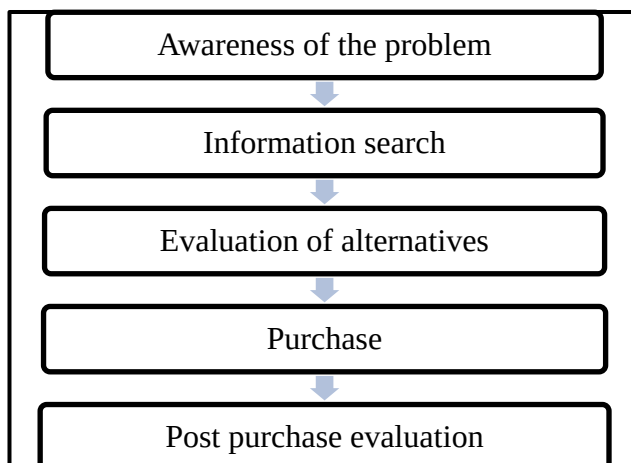
**Figure 2.9: Typology of consumer decision process**



Source: Adopted from De Chernatony L. (2003)

*Extended problem solving.* It happens when consumers are involved in the purchase and where they perceive significant differences between competing brands in the same product or field. This type of problem solving process is generally for high-priced brands and usually is considered as a risky purchase due to the complexity of purchase<sup>32</sup>. The process is shown in figure 2.10

**Figure 2.10: Extended problem solving process**



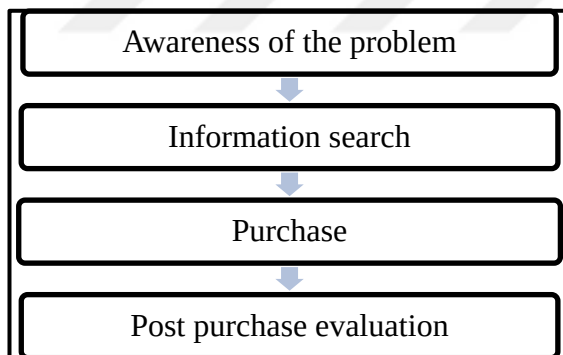
Source: Adopted from De Chernatony L. (2003)

<sup>32</sup> <https://nonsensecollection.com>

Extended problem solving process begins with the awareness of the problem that trigger the information research to solve the problem. The information search starts in consumer's own at first, if they have enough information already, the evaluation of the brands starts or usually consumer need to search alternative external environment for more information and begin evaluation. Later evaluation become an attitude, consumer decide and buy that brand. After purchasing, they undertake post-purchase evaluation. In this phase, consumer may have satisfaction and be proud of their purchase or have dissatisfaction and they search further information to provide reassurance that the correct choice was made. If consumers have dissatisfaction, they communicate other customers about their experience try to convince others. (De Chernatony L. 2003)

*Limited problem solving.* If customers don't consider the purchasing process as an important issue and perceive only a few differences between the brands, it is described as Limited problem solving process which is shown in figure 2.1. It happens in the low-price product and service and considered as less risky purchase<sup>33</sup>.

**Figure 2.11: Limited problem solving process**



Source: Adopted from De Chernatony L. (2003)

In this type of problem solving process, consumers are aware of the problem but not interested in the purchase since they are not motivated to actively search information from different sources. Thus, passive information search happens. Alternative evaluation, if any, takes place after the purchase. In effect, fully formed beliefs, attitudes and intentions are the outcomes of purchase and not the cause. Consumer is likely to

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<sup>33</sup> <https://nonsensecollection.com>

regard the cost of information search and evaluation as outweighing the benefits. (De Chernatony L.,2003)

Table 2.10 summarizes and compare the two types of purchase: Limited and extended problem solving

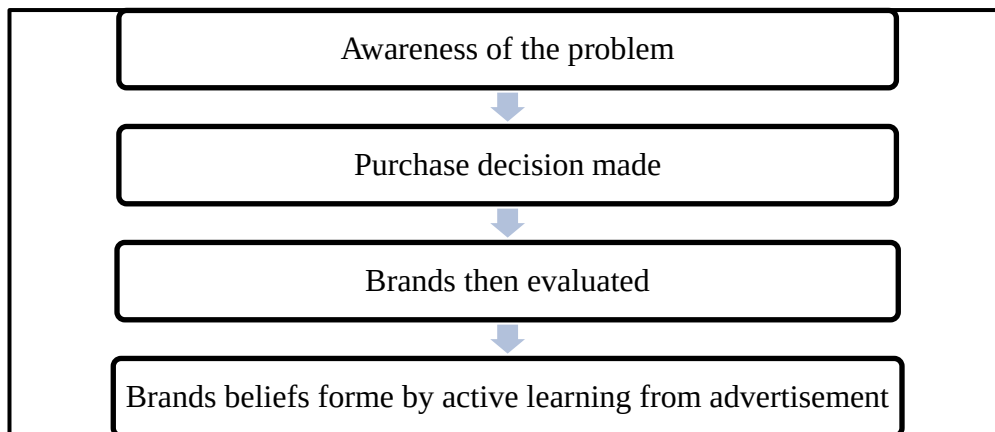
**Table 2.10: Comparison between Limited Problem Solving and Extended Problem Solving**

|                                     | <b>Limited Problem Solving</b>                                                                       | <b>Extended Problem Solving</b>                                                      |
|-------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Motivation                          | Low risk and involvement                                                                             | High risk and involvement                                                            |
| Information Search actively,        | Little search, information processed passively, in-store decision likely                             | Extensive search, information processed multiple sources consulted prior to visits   |
| Alternative Evaluation significant  | Weakly held beliefs, only most prominent criteria used, alternatives perceived as basically similar, | Strongly held beliefs, many criteria used, differences perceived among alternatives, |
| compensatory                        | non compensatory strategy used                                                                       | strategy used                                                                        |
| Purchase needed, communication with | Limited shopping time; may prefer self-service choice often influenced by store displays             | Many outlets shopped if store personnel often desirable                              |

Source: Solomon, Michael R. (2011)

*Dissonance reduction.* In this type of brand purchasing behavior, similar to extend problem solving, consumer involvement is at the high level with the purchase, but the consumer perceives only minor difference between competing brands. In dissonance reduction, consumers may have lack of information about brand differences. (De Chernatony L.,2003)

**Figure 2.12: Dissonance reduction process**



Source: Adopted from De Chernatony L. (2003)

The purchase will most probably be made based on other reasons, such as a friend's opinion or an advice given by a shop assistant. After purchase, consumer may feel unsure caused by the conflict with the information they receive and their reasons to purchase. ;In case of dissatisfaction the consumer would experience mental discomfort, or what is known as 'post-purchase dissonance', and would attempt to reduce this state of mental uncertainty. This would be done either by ignoring the dissonant information, such as by refusing to discuss it with the person giving conflicting views, or by selectively seeking those messages that confirm prior beliefs. (De Chernatony L.,2003)

*Tendency to limited problem solving.* This process occur low involvement brand purchasing when the consumer perceives significant brand differences. As De Chernatony L., (2003) explains, even though there may be notable differences between brands because of the consumer's low involvement they are less likely to be concerned about any such differences. Brand trial would take place and, in an almost passive manner, the consumer would develop brand loyalty. The brand selection process is very similar to that described in limited problem solving and similar marketing issues need to be addressed.

#### 2.2.4.2 Emotional brand associations

The latest and the most accepted model developed by Kahneman D. (2011) explains the decisions of people. The model based on the metaphor of “System 1” and “System 2”. In his study, system 1 represent thinking fast and much more emotional way, and system 2 represent thinking slow and rational. Therefore according to Kahneman, people decide mainly by system 1 which means emotionally (Kahneman D. 2011),

Since people make their decision by their emotions, those emotions are related to the brands. So “people have emotional associations with brands that have grown out of their experiences with them, and they are linked in memory to those brands. (...) When a person thinks about a brand, they will be drawing from memory not only its cognitive associations such as benefits or features, but also their emotional feelings about the brand.” Hence, understanding the customers’ emotions helps executives to understand the brand better and this will play a key role to predict the purchasing behavior they will have. (Elliot and Percy 2007, pp.32-33)

The past decade shows us that the world is moving from industrially driven economy where machineries are at the top of the list toward a people driven economy that give the power to the consumer. In order to follow the market and survive in it, brands should understand the changes in the market and compete differently. Therefore the emotional aspect of the goods or services and their distribution systems is a key concept for the consumers’ preference and the amount that they will pay. This means that understanding people’s emotional needs and desires is really, now more than ever, the key to success thereby companies must build stronger connections and relations with their customers. In this market structure, marketing studies developed Emotinal Branding which is a mixture of *anthropology, imagination, sensory experiences, and visionary approach to change*. (Gobe M., 2001)

In order to understand Emotional Branding better, customers' emotional motivators should be determined. The feelings that drive customers' behavior are emotional motivators<sup>34</sup>.

**Table 2.11: Ten High-Impact Motivators**

| <b>I am inspired by a desire to:</b> | <b>Brands can leverage this motivator by helping customers:</b>                                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Stand out from the crowd             | Project a unique social identity; be seen as special                                                                                 |
| Have confidence In the future        | Perceive the future as better than the past; have a positive mental picture of what's to come                                        |
| Enjoy a sense of well-being          | Feel that life measures up to expectations and that balance has been achieved; seek a stress-free state without conflicts or threats |
| Feel a sense of freedom              | Act independently, without obligations or restrictions                                                                               |
| Feel a sense of thrill               | Experience visceral, overwhelming pleasure and excitement; participate in exciting, fun events                                       |
| Feel a sense of belonging            | Have an affiliation with people they relate to or aspire to be like; feel part of a group                                            |
| Protect the environment              | Sustain the belief that the environment is sacred; take action to improve their surroundings                                         |
| Be the person I want to be           | Fulfill a desire for ongoing self-improvement; live up to their ideal self-image                                                     |
| Feel secure                          | Believe that what they have today will be there tomorrow; pursue goals and dreams without worry                                      |
| Succeed in life                      | Feel that they lead meaningful lives; find worth that goes beyond financial or socioeconomic measures                                |

Source: Harvard Business Review "The New Science of Customer Emotions," November 2015

According to the research by Harvard Business Review, a lot of emotional motivators affect consumer behavior. Table 2.10 shows the 10 significantly drive emotional motivators.

#### **2.2.4.3 Brand personalities and brand archetypes**

Since the revolutionary studies started with Kahneman D (2011) demonstrate that behaviors are driven by our emotions, the marketing strategies are completely changed. Now the strong brands are build on personalities to effects the customers' purchasing decisions and get competitive advantage. So the current motto of the marketing turned to "you are what you buy!" (Beaver E. 2015)

From this point of view, the companies grow their personalities and archetypes to express the brand clearly and develop strong associations with the customers.

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<sup>34</sup> hbr.org

As Aaker (1997) explained brand personality is result of direct and indirect contact from consumer with brands. She also states that brand personality is associated with demographic characteristics and is measured either by ad hoc scales or human personality scale<sup>35</sup>.

Five Brand Dimensions is a framework to describe the profile and traits of a brand in five core dimensions, each divided into a set of facets. It is an easy to understand model to describe the profile of a brand using an analogy with a human being<sup>36</sup>.

The five core dimensions and their facets are:

- i. Sincerity (down-to-earth, honest, wholesome, cheerful)
- ii. Excitement (daring, spirited, imaginative, up-to-date)
- iii. Competence (reliable, intelligent, successful)
- iv. Sophistication (upper class, charming)
- v. Ruggedness (outdoorsy, tough)

Similar to personalities, brand archetype is a character was assigned to the brand, based upon symbolism. The idea behind using brand archetypes is to anchor the brand against something iconic—something already embedded within the conscious and subconscious of humanity<sup>37</sup>. The characters are similar to the Jungian archetypes which have been adopted and examined by all sorts of groups<sup>38</sup>.

There are twelve brand archetypes as followings:

*The Innocent:* The goal of innocent archetype is to be happy. Traits are strives to be good, is pure, young, optimistic, simple, moral, romantic, loyal. Drawback is being naïve or boring. Marketing niches are companies with strong values, seen as trustworthy, reliable and honest, associated with morality, good virtues, simplicity, can be nostalgic. (Examples: Dove soap, Coca-Cola, Cottonelle bathroom tissue)

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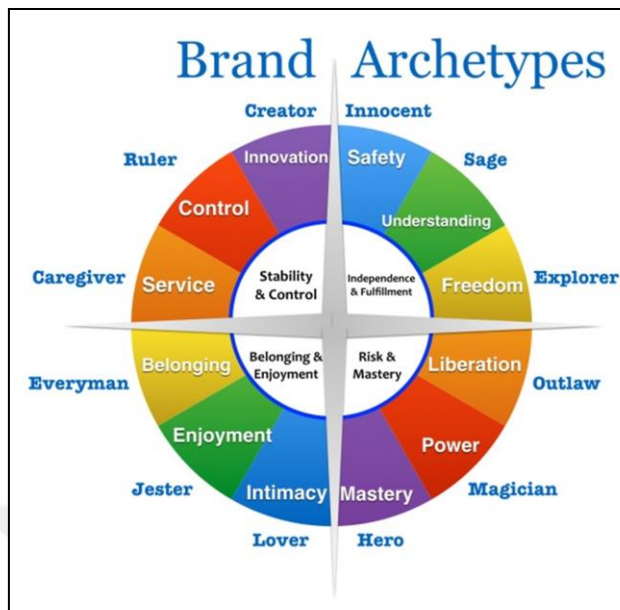
<sup>35</sup> [digitalnewscoventry.wordpress.com](http://digitalnewscoventry.wordpress.com)

<sup>36</sup> <http://www.valuebasedmanagement.net>

<sup>37</sup> [www.marketingideas101.com](http://www.marketingideas101.com)

<sup>38</sup> [www.sparkol.com](http://www.sparkol.com)

**Figure 2.13: Brand Archetypes**



Source: [www.wtastudios.com](http://www.wtastudios.com)

*The Regular Guy or Gal:* . The goal of the gal is to belong, or connect with others. Traits are down to earth, supportive, faithful, folksy, person next door, connects with others. Drawback is being lack a distinctive identity and blend in too much. Marketing niches are common touch, solid virtues, gives a sense of belonging. (Example: Home Depot, eBay)

*The Hero:* The goal of hero is to help to improve the world. Traits are courageous, bold, honorable, strong, confident, and inspirational. Drawback is being arrogant or aloof. Narketing niches are making a positive mark on the world, solving major problems or enabling/inspiring others to do so. (Example: Nike, BMW, Duracell)

*The Outlaw:* The goal of the outlaw is to break the rules and fight authority. Traits are rebellious, iconoclastic, wild, paving the way for change. Drawback is taking it too far and be seen in a negative way. Marketing niches are agent of change, advocate for the disenfranchised, allow people to vent or break with conventions. (Example: Harley-Davidson, Virgin (Richard Branson))

*The Explorer:* The goal of the explorer is finding fulfillment through discovery and new experiences. Traits are restless, adventurous, ambitious, individualistic, independent,

pioneering. Drawback is not to fit into the mainstream. Marketing niches are exciting, risk-taking, authentic. (Example: Indiana Jones, Jeep, Red Bull)

*The Creator:* The goal of the creator is to create something with meaning and enduring value. Traits are being creative, imaginative, artistic, inventive, entrepreneur, non-conformist. Drawback is being perfectionistic or impractical. Marketing niches are visionary, help customers express or create, and foster their imagination. (Example: Lego, Crayola)

*The Ruler:* The goal of the ruler is to control, create order from chaos. Traits are being leader, responsible, organized, role model, and administrator. Drawback is lack a common connection, or be too authoritative or controlling. Marketing niches are to help people become more organized, restore order, create more stability and security in a chaotic world. (Example: Microsoft, Barclays, Mercedes-Benz)

*The Magician:* The goal of the magician is to make dreams come true, create something special. Traits are being visionary, charismatic, imaginative, idealistic, spiritual. Drawback is taking risks that lead to bad outcomes. Marketing niches are to help people transform their world, inspire change, expand consciousness. (Example: Disney, Wizard of Oz, Apple)

*The Lover:* The goal of the lover is to create intimacy, inspire love. Traits are being passionate, sensual, intimate, romantic, warm, committed, and idealistic. Drawback is being too selfless or not grounded enough. Marketing niches are helping people feel appreciated, belong, connect, enjoy intimacy, and build relationships. (Example: Victoria's Secret, Godiva Chocolate, Marie Claire)

*The Caregiver:* The goal of caregiver is to care for and protect others. Traits are caring, maternal, nurturing, selfless, generous, and compassionate. Drawback is being taken advantage of, taken for granted, or exploited. Marketing niches are helping people care for themselves, serve the public through health care, education or aid programs. (Example: Mother Theresa, Campbell's Soup, Johnson & Johnson, Heinz)

*The Jester:* The goal of the jester is to bring joy to the world. Traits are fun, sense of humor, light-hearted, mischievous, and irreverent. Drawback is being seen as frivolous or disrespectful. Marketing niches are to help people have a good time or enjoy what they are doing, allow people to be more impulsive and spontaneous. (Example: Motley Fool, Ben & Jerry's, IKEA)

*The Sage:* The goal of the sage is to help the world gain wisdom and insight. Traits are being knowledgeable, trusted source of information, wisdom and intelligence, thoughtful, analytical, mentor, guru, advisor. Drawback is being be overly contemplative or too opinionated. Marketing niches are to help people to better understand the world, provide practical information and analysis. (Example: BBC, PBS, Google, Philips)<sup>39</sup>

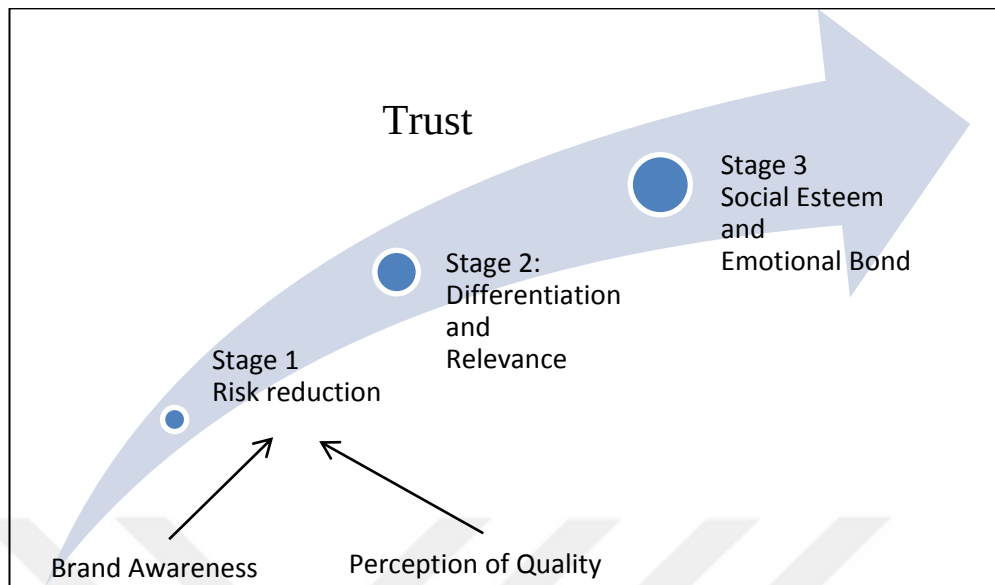
### **2.2.5 Strategies for Growing Strong Brands**

In order to manage a brand strategy, there are many projects and models to pioneer the companies. Elliot and Percy (2007, pp. 132-135) describe the model they developed which is a mixture of main projects. Figure 2.6 shows the model of the strategy.

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<sup>39</sup> <https://www.thehartford.com>

**Figure 2.14: The strategy for building strong brand**



Source: Elliot and Percy (2007, p. 133)

In the model Elliot and Percy (2007) describe, the first step for all of the brands is developing brand awareness. It is the fundamental for the building a brand because it is the introduction phase of the brand to the potential customers. Consumer's perception about the quality of the brand's performance is crucial also. Both brand awareness and perception of quality reduces the consumer's perceptions of risk of purchase.

The second step of branding is differentiating and relevance which are directly related to perception of the customer. In this step, company must provide the beliefs that the brand differs from the other ones and distinctive in that it is worth paying more for. Besides, company must ensure that the brand has something that is personally relevant or appropriate to the customer.

So that going further to the next stage of brand building process, company must develop the social esteem and emotional bond in the mind of the market. This stage involves socio-cultural environment more than individual customers. Social esteem refers to the opinion of the other people in the market. And finally emotional bond involves the development of the relations between brand and the customers.

Up to the third step, company develops both personal and social perceptions. As it is illustrated by Figure 2.6, by growing those stages, customer trust increases and the competition risk decrease.

### 2.2.6 Brand Equity

Brand equity is the term used to describe the value of a brand name. (Trott 2012, p.177) So this term described in different ways by accountants and marketers (Feldwick, 1996)

Today's financial institutions interested in the more who you are instead of what you have. Therefore, the brands can be a value much more than the company's assets. As per the Interbrand Index, the most valuable brand is Apple Inc. with the 214.480 \$m. and it followed by Google with 155.506 \$m<sup>40</sup>. Figure 2.5 shows the most valuable top ten brands in 2018

**Figure 2.15: The most valuable brands (2018)**

|                                                                                                                  |                                                                                                                  |                                                                                                                  |                                                                                                                   |                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 01<br><br>+16%<br>214,480 \$m | 02<br><br>+10%<br>155,506 \$m | 03<br><br>+56%<br>100,764 \$m | 04<br><br>+16%<br>92,715 \$m | 05<br><br>-5%<br>66,341 \$m |
| 06<br><br>+6%<br>59,890 \$m   | 07<br><br>+6%<br>53,404 \$m   | 08<br><br>+2%<br>48,601 \$m   | 09<br><br>-6%<br>45,168 \$m  | 10<br><br>+5%<br>43,417 \$m |

Source: Interbrand

The “brand equity” concept emerged in the beginnings of 1980s and it has become an important topic in the marketing management researches since the 1990s for researchers. (Cobb-Walgren, Ruble and Donthu, 1995; Agarwal, Rao, 1996). Generally accepted brand equity definitions are “the value added by the brand to the product” Farquhar (1989), or “the incremental preference endowed by the brand to the product as perceived by an individual consumer” (Park and Srinivasan, 1994, p. 273). Another description of brand equity, “incremental cash flows that accrue to the firm due to its

<sup>40</sup> [www.interbrand.com](http://www.interbrand.com)

investments in brands” (Simon and Sullivan, 1993); “brand loyalty and image” (Shocker and Weitz, 1988); “a set of brand assets and liabilities linked to a brand , its name and symbol, that add to or subtract from the value provided by a product or service to a firm and or to that firm’s customers” by Aaker (1991, p. 15); and finally *“differential effect that brand knowledge has on consumer response to the marketing of that brand”* Keller (2013, p: 69).

Throughout the literature, brand equity is analyzed and defined in two main perspectives: Financial perspectives and Consumer perspective. But in this study, consumer based brand equity is focused. Between these definitions, one of the the best-known is David A. Aaker’s study. Aaker (1991) adopted an approach in knowing, distinguishing and differentiating products and brands. In his brand equity model, Aaker identifies five brand equity components: “brand loyalty”, “brand awareness”, “perceived quality”, “brand associations” and “other proprietary”.

#### **2.2.6.1 Brand awareness**

Brand awareness is another major determinant of customer based brand equity. It is the strength that makes consumer Aaker (1991) identifies brand awareness as the ability of a consumer to recognize or recall a brand. According to Keller (1993; 2008) it is the strength of the brand identities’ performance to enable the consumers' to identify the brand under different conditions. It is closely related to the likelihood that brand easily comes to the customers mind. Brand awareness is such an important issue that, a brand has no equity unless the consumer is at least aware of the brand.

**Figure 2.16: The Awareness Pyramid**



Source: Aaker, 1991,

The main purpose of the brand management is to move forward from the status of unawareness to brand recognition, brand recall until top-of-mind awareness (TOMA) (Shimp 2007, p.34).

#### **2.2.6.2 Brand loyalty**

Brand loyalty is the extent of customers' purchase tendencies repeatedly for a specific brand. It shows sensitivity and reactions of the customers on prices and also customers' satisfaction level with the brand. Aaker (1991) After an intensive effort to make the people aware of the brand, the other primary aim is earn the customers' loyalty.

According to Oliver (1999) there are four phases of brand loyalty: Cognitive loyalty, Affective loyalty, Conative loyalty and Action loyalty. Cognitive loyalty is the first loyalty phase in which the information about the brand attributes available indicate that one brand is preferable to its alternatives. It is also called as loyalty based on brand belief only. The second state is Affective Loyalty. This phase reflects pleasure in satisfaction or a pleasurable fulfillment. In this phase consumer behavior is still tend to swich and loyalty is still weak. The third phase of the loyalty is conative that is the definition of conation as a brand-specific commitment to repurchase. It is also expressed when the consumer wants to rebuy the brand. Action loyalty, as the fourth phase of the brand, is the commitment to rebuying and consumers's readiness to to overcome

possible obstacles for using certain products or services and finally reaching their desirable brand

#### **2.2.6.3 Perceived quality**

Perceived quality is the consumer's subjective evaluation of the product's overall excellence or superiority (Zeithaml, 1988). It is meeting the customer requirements and providing satisfaction and a brand association which raises the status of a brand active for various reasons (Aaker, 1996). As Keller (1998) explained that it is perception of the overall quality of a product or service relative to relevant alternatives and with respect to its intended purpose. Thus, perceived quality is a global assessment based on consumer perceptions of what they think constitutes a quality product and how well the brand rates on those dimensions.

#### **2.2.6.4 Brand associations**

Brand associations are mainly related to image and can be anything else related to the brand such as perceived value, personality, user profile, and organizational associations. It consist of all brand-related thoughts, feelings, perceptions, smells, colors, music, images, experiences, beliefs and attitudes (Kotler and Keller 2006, p. 188) or briefly brand associations is anything linked in memory to a brand (Aaker 1991). This is the highest level of association for any brand that reaches this level of association and value with consumers. (Davis S. M., 2002, pp. 54-55)

In the explanation of Keller (2013, p:69) brand equity has three key words which are “differential effect,” “brand knowledge,” and “consumer response to marketing.” Differential effect is the comparison of the consumer response to the marketing of a brand and response to the same marketing of a fictitiously named or unnamed version of the product or service. Brand knowledge is defined with regard to brand awareness and brand image. According to Keller (1993) brand knowledge comprises two components; brand awareness and brand image. Brand awareness is the consumer’s brand recall and recognition. The set of associations linked to the brand that consumers hold in memory comprise brand image. Finally consumer response to marketing includes consumer perceptions, preferences, and behavior arising from marketing mix activity (e.g., brand

choice, comprehension of copy points from an ad, reactions to a coupon promotion, or evaluations of a proposed brand extension).” (Keller 1993, p.8)

Both are recognized as key strategic assets that play a fundamental role in firm growth and success. Indeed, companies have been able to revitalize their brands and increase market shares and profits through product innovation (Beverland et al., 2010).

The success of a firm in the market is related with both innovation and brand equity of the company. (Slotegraaf and Pauwels 2008, p. 293). Hence, the power of a brand is located in the minds of consumers, and it depends on the ability of firms to influence consumers (Keller, 1993). The success of a brand depends on its ability to create strong, unique and favorable associations compared to competitors (Keller, 1993).

### **3. METHODOLOGY**

#### **3.1 AIM OF THE STUDY**

Innovation and Brand Perception are today's the most popular concepts. Those concepts are crucial for today's business. For this reason, a lot of studies and analysis has been done about innovation and brand management. But those concepts were analyzed separately. Innovation was discussed as a technical concept and it wasn't considered as a subject in marketing. Or some of the studies analyzed innovation at the industry levels. On the other hand brand perception in consumers' mind was analyzed as a marketing tool, but other determinants for building strong brands were omitted.

Therefore, this study aims to understand the relationship between innovation and brand perception from the customers' point of view with the consideration of the demographic characteristics and personalities of the people. For the research of the relationship, mobile phone market, which is one of the most innovative and has strong brands, was analyzed. A survey prepared for the mobile phone users to analyze their opinions about the brands and behaviors in case of any change in the products or services.

#### **3.2 LIMITATIONS OF THE STUDY**

There are certain limitations in the study. Firstly, the research had a limited time and all the study activities had to be completed at a specific time. For this reason, it was aimed to reach sample group in 15 days to complete the analysis. The survey was applied between the dates of 15<sup>th</sup> April 2018 and 30<sup>th</sup> April 2018. The survey reached to 203 people in the 15-day period.. Moreover, the study focused on the Turkish market and domestic customers thereby the survey was prepared in Turkish language. Due to time and cost limitation, the sample group was limited to Istanbul and it was attempted to get approximately equal demographics such as gender, age range, income, etc.

### **3.3 DATA COLLECTION AND SAMPLING**

For the data collection, survey technique has been applied. The questions of the survey were prepared by reviewing literature and previous studies according to the theatrical content of this study. It was prepared on “docs.google.com” and shared online via e-mail and social media for 15 days between 15.04.2018 – 30.04.2018. In consequence 203 people replied the survey.

The main data was collected via closed-ended questions based on multiple choices and the Likert rating scale. Total 12 questions were asked at the survey. At the beginning of the survey, participants were asked about the mobile phone brand they already bought which is a basic statistical data to analyze whether they attach importance to innovation or not since the first three choices (i.e. Iphone, Samsung and Huawei) are particularly selected among the most innovative companies according to the data given by Boston Consulting Group (BGC). Later, the reason of their choice was asked to the attendees to understand the factors their purchase decision. After that the frequency and the reason of the renewal of their mobile phone was questioned. The purpose of the next question was to analyze the information about brand choices, brand perception, brand loyalty of the consumers and the importance of the innovation attached by them. The last Likert scale question was the intelligence / openness to experience which evaluate the personality of the participants. The survey was finalized with the 4 questions that ask about the demographic information.

### **3.4 STRUCTURE OF THE QUESTIONNAIRE**

The questions of the survey were prepared to understand opinions and behaviors of the mobile phone users.

There are twelve close ended questions and 8 parts in the survey, which are about demographic and characteristics of the participants’ information, behavior information, and opinions.

- a. Part 1: The brand of the mobile phone which participants are using
- b. Part 2: The factor that effect the participants' decision to choose another brand when they decide to replace their current mobile phone.
- c. Part 3: The frequency of the participants' mobile phone renewal
- d. Part 4: Participants' satisfaction from mobile phone brand currently used
- e. Part 5: Participants' level of agreement with the situations that affect their decision to buy a new mobile phone.
- f. Part 6: Participants' level of agreement with the situations that affect their decision when they are choosing a new mobile phone.
- g. Part 7: Characteristics of the participants.
- h. Part 8: Demographic information about the participant

*Part 1: The brand of the mobile phone which participants are using*

This question was asked to determine the mobile phone brand is being used by the participant. The options are as follows:

- a. Iphone
- b. Samsung
- c. Huawei
- d. Diğer

Especially the brands of Iphone, Samsung, and Huawei were mentioned since those are listed among the top 50 innovative companies<sup>41</sup>.

*Part 2: The factor that effect the participants' decision to choose another brand when they decide to replace their current mobile phone.*

Aim of this part is to understand the users' brand loyalty. The first six options was selected as technological superiority, being used by many people, different color options, better price options, after-sale services or design factors of the other brand. On the other hand, the last options which is "I do not prefer another brand" describes the brand loyalty.

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<sup>41</sup> [www.bcg.com](http://www.bcg.com)

### *Part 3: The frequency of the participants' mobile phone renewal*

People are often renewing their mobile phone and the aim of this question is to determine the frequency of the participants' mobile phone renewal. The most innovative brands which are iPhone and Samsung<sup>42</sup> launch an innovated mobile phone every year<sup>43</sup>. Therefore, it will be an important argument to determine the participants' interest on innovated products.

### *Part 4: Participants' satisfaction from mobile phone brand currently used*

The question 4 and 5 aimed to evaluate the users' satisfaction from mobile phone brand they have been using. The results of this question will be an argument to evaluate the participants' brand perception

### *Part 5: Participants' level of agreement with the situations that affect their decision to buy a new mobile phone.*

In this question, people are asked the factors that affect on their decision to the buy a new mobile phone. The results of this question will be an argument to evaluate the customers' behavior on renewing their mobile phone.

### *Part 6: Participants' level of agreement with the situations that affect their decision when they are choosing a new mobile phone.*

In this question, people are asked the factors that affect on participants' decision to buy another brand when they are choosing a new mobile phone. The results of this question will be an argument to evaluate the participants' brand loyalty.

Those question prepared in Likert Scale and was adapted by the Perceived Value (PERVAL) scale which was developed by Sweeney J.C. and , Soutar G.N. (2001) in their study of Consumer perceived value: The development of a multiple item scale. It measures the perceived worth of consumer products to the purchaser. PERVAL scale includes the following components:

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<sup>42</sup> [www.bcg.com](http://www.bcg.com)

<sup>43</sup> [www.techaeris.com](http://www.techaeris.com)

- i. value for money
- ii. value for quality
- iii. emotional value
- iv. social value

By adapting PERVAL scale, it was attempted to understand the purchasing behaviours of the consumer.

#### *Part 7: Characteristics of the participants.*

These questions are the “Intelligence/Openness to Experience” part of the “The Big Five Personality Test” that aims to research the innovative personality of the attendee. It was developed by an American personality researcher Goldberg and published at International Personality Item Pool<sup>44</sup>.

Intelligence/Openness to Experience part of the questionnaire was examined in different perspectives. While Norman (1963) explains this aspect as culture, Hogan (1983), Digman and Inouye (1986), Peabody and Goldberg (1989) explain as intelligence. Costa and McCrae (1992), describes the openness to experience personalities as analytical, complicated, liberal, unconventional, original, imaginative, brave, openness to change, curiosity, authenticity, openness to the new ideas and artificial awareness. Johnson and Ostendorf (1993) emphasize that the personalities of analytical, have a broad interests, curious, sophisticate, innovative, smart and intelligence have positive relation with intelligence and openness.

#### *Part 8: Demographic information about the participant*

In this part, demographic questions are asked such as gender, education status, age, and income.

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<sup>44</sup> <http://ipip.ori.org>

### 3.5 HYPOTHESES

For this study, six hypotheses are worked on. Those are mentioned as below:

*Hypothesis 1:* There is a positive correlation between the openness personality of the customers and the mobile phone brand they choose.

*Hypothesis 2:* Customer's preference, which is based on the brand while buying their current phone, is related with the brand of the phone they were using before.

*Hypothesis 3:* Customers' satisfaction from their existent mobile phone are related with the mobile phone brand they were using

*Hypothesis 4:* There is a positive correlation between the openness personality of the customers and the frequency of the participants' mobile phone renewal

*Hypothesis 5:* Customers' preference based on the latest technological developments when they are choosing a new phone is related to the mobile phone brand they were using.

*Hypothesis 6:* Customers' preference by brand when they are buying their current phone is related to the mobile phone brand they were using.

#### 4. DATA ANALYSIS

To analyze the research of “the mobile phone usage and innovation” the survey prepared on docs.google.com link was sent to 203 people by e-mail. The tables and figures of analysis prepared by SPSS 17. Reliability analysis, ANOVA and T-Test was used. In order to determine the methodology of this study, suitability of the normal distribution was analyzed first. “One Sample Kolmogorov-Smirnov Test” was used for the analyse of suitability of normal distribution and it was detected that the data is not suitable of the normal distribution with the 5 pct of the level of significance. For this reason, one of the non-parametric analysis methods which is Mann Whitney-U test was used in the analysis of data consisting of two groups. In the comparison of the data with more than two groups, Kruskal-Wallis-H Test was used.

##### 4.1 RELIABILITY OF THE SURVEY SCALES.

Reliability of the survey scales have been controlled by Cronbach’s Alpha. Table 4.1 shows reliability analysis results. According to the results of Reliability Analysis of Openness in the five factors personality test has been done and Cronbach’s Alpha was found as 0,778. As a result of the Openness personality analysis, which being scored minimum 10 and maximum 50, participants' scores was found as minimum 22, maximum 50, average 38 and standard deviation 5,5.

**Table 4.1: Reliability Analysis**

|                                                                                                                                          | Cronbach's Alpha Index |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <i>Part 6: Participants' level of agreement with the situations that affect their decision when they are choosing a new mobile phone</i> | 0,811                  |
| <i>Part 7: Openness Test</i>                                                                                                             | 0,778                  |

## 4.2 DEMOGRAPHIC CHARACTERISTICS OF THE SURVEY

41,1 percent of the participants of the survey, that is 84 person, is women whereas 58,6 percent of the participants, that is 119, is men. 58,6 percent of the participants are in the age range from 29 to 39, 32,5 percent are in 18-28, 15,8 percent are in 40-50 and 6,4 percent are in 51 and above age group.

**Table 4.2: Demographic characteristics of the survey attendees: Gender and Age.**

| Groups                   | N=203 | % Percentage |
|--------------------------|-------|--------------|
| Gender                   |       |              |
| Female                   | 84    | 41,4         |
| Male                     | 119   | 58,6         |
| Age                      |       |              |
| 18-28                    | 66    | 32,5         |
| 29-39                    | 92    | 45,3         |
| 40-50                    | 32    | 15,8         |
| 51 and above             | 13    | 6,4          |
| Education                |       |              |
| Secondary School         | 3     | 1,5          |
| High School              | 23    | 11,3         |
| Bachelors Degree         | 135   | 66,5         |
| Masters Degree or higher | 42    | 20,7         |
| Income per month         |       |              |
| 1600 TL -2600 TL         | 63    | 31           |
| 2601 TL - 3600 TL        | 36    | 17,7         |
| 3601 TL - 4600 TL        | 40    | 19,7         |
| 4601 TL - 5600 TL        | 16    | 7,9          |
| 5601 TL or higher        | 48    | 23,7         |

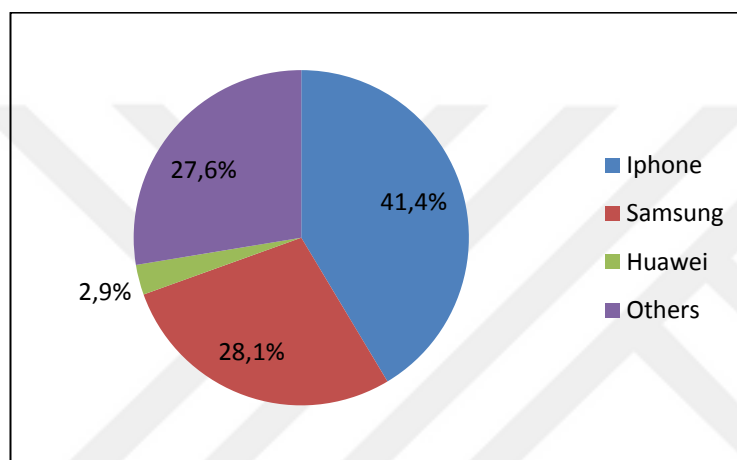
As Table 4.1 shows that prominently 87,2 percentage of the participants have bachelor's degree or above education level. 31 percentage of the attendees have an income between 1600 TL-2600 TL, 23,7 percentage have 5601 or above, 19,7 percentage are earning between 3601 TL-4600 TL and 17,7 percentage of the participant have 2601 TL- 3600 TL income per month.

### 4.3 DESCRIPTIVE STATISTICS OF THE SURVEY

Table 4.2 shows the participants' decisions on choice of the mobile phone brand, the reasons and frequency for change.

41,4 percent of the attendees are using iPhone whereas 28,1 percent are using Samsung, 2,9 percent are using Huawei and 27,6 percent are using the other brands.

**Figure 4.1: Rate of the usage of the mobile phone usage among the participants**



Among the participants 42,4 percent said that technological superiority is the main reason for replacing their phone with another brand. On the other hand, 30,5 percent stated that they may choose another brand in case of lower price and better customer service. 22,6 percent of the attendees expressed that they do not change the phone brand they've been using in any case and finally decisions of the 4,4 percent of the attendees are effected by different design, color variety and popularity.

It is also detected by the survey, 64 pct of the participants haven't renewed their mobile phone, in the other respect 36 pct of the attendees renewed in the last year.

Moreover, 32 pct of the participants stated that they renew their mobile phone once every three years and 42,3 pct stated that they renewed less frequently. The people who renew their mobile phone once a year are only 5 pct among the participants.

**Table 4.3: The Participants' buying decision of the mobile phone brand, the reasons and frequency for change**

| Questions                                                                                                       | NR=203 | % PCT |
|-----------------------------------------------------------------------------------------------------------------|--------|-------|
| What is the brand of your mobile phone?                                                                         |        |       |
| Iphone                                                                                                          | 84     | 41,4  |
| Samsung                                                                                                         | 57     | 28,1  |
| Huawei                                                                                                          | 6      | 2,90  |
| Others                                                                                                          | 56     | 27,6  |
| What is the most important factor to choose another brand when you decide to replace your current mobile phone? |        |       |
| Better technology of the other brand                                                                            | 86     | 42,4  |
| Lower price and better customer service                                                                         | 62     | 30,5  |
| I don't prefer the other brand                                                                                  | 46     | 22,6  |
| Design of the other brand                                                                                       | 6      | 3,0   |
| Being used by many people of the other brand                                                                    | 2      | 1,0   |
| Different color options of the                                                                                  | 1      | 0,5   |
| Have you changed your mobile phone in one year?                                                                 |        |       |
| No                                                                                                              | 130    | 64    |
| Yes                                                                                                             | 73     | 36    |
| How often do you change your mobile phone?                                                                      |        |       |
| Once a year                                                                                                     | 10     | 5,0   |
| In every two years                                                                                              | 42     | 21,7  |
| In every three years                                                                                            | 65     | 32    |
| Less than three years                                                                                           | 86     | 42,3  |

The chi-square test was applied to determine whether the factors would be effective or not according to the mobile phone brand that participants currently use.

**Table 4.4: Chi-Square Test**

|                                                                                         | Value               | df | Asymp. Sig. (2-sided) |
|-----------------------------------------------------------------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square                                                                      | 54,348 <sup>a</sup> | 15 | 0                     |
| Likelihood Ratio                                                                        | 56,954              | 15 | 0                     |
| Linear-by-Linear Association                                                            | 0,303               | 1  | 0,582                 |
| N of Valid Cases                                                                        | 203                 |    |                       |
| a. 15 cells (62,5%) have expected count less than 5. The minimum expected count is ,03. |                     |    |                       |

Table 4.3 shows the chi-square test results. It can be inferred by the test results that buying decision another brand differ by the mobile phone brand being used since  $p < 0,001$ .

Tables 4.4 – 4.7 show all the mobile phone brand options separately.

**Table 4.5: Reason for choosing another brand - Iphone users.**

| The brand of the mobile phone being used |                                 | The reason for choosing another brand |              |                                              |          |          |                   | Total     |
|------------------------------------------|---------------------------------|---------------------------------------|--------------|----------------------------------------------|----------|----------|-------------------|-----------|
|                                          |                                 | Never choose another brand            | Better price | Being used by many people of the other brand | Design   | Color    | Better technology |           |
| I<br>P<br>H<br>O<br>N<br>E               | Count                           | <b>33</b>                             | <b>14</b>    | <b>0</b>                                     | <b>2</b> | <b>0</b> | <b>35</b>         | <b>84</b> |
|                                          | Expected Count                  | 19                                    | 25,7         | 0,8                                          | 2,5      | 0,4      | 35,6              | 84        |
|                                          | % within The brand being used   | 39,30%                                | 16,70%       | 0,00%                                        | 2,40%    | 0,00%    | 41,70%            | 100%      |
|                                          | % within Choosing another brand | 71,70%                                | 22,60%       | 0,00%                                        | 33,30%   | 0,00%    | 40,70%            | 41,40%    |

While Samsung users state that choosing another brand depends on better technologies of the other mobile phone brand, most of the Iphone users express their ideas that they never change mobile phone brand they used, or they may change in case of the technological superiority of the other brands.

**Table 4.6: Reason for choosing another brand - Samsung users.**

| The brand of the mobile phone being used |                                 | The reason for choosing another brand |              |                                              |        |         |             | Total  |
|------------------------------------------|---------------------------------|---------------------------------------|--------------|----------------------------------------------|--------|---------|-------------|--------|
|                                          |                                 | I don't choose another brand          | Better price | Being used by many people of the other brand | Design | Color   | Better tech |        |
| S<br>A<br>M<br>S<br>U<br>N<br>G          | Count                           | 11                                    | 14           | 0                                            | 3      | 1       | <b>28</b>   | 57     |
|                                          | Expected Count                  | 12,9                                  | 17,4         | 0,6                                          | 1,7    | 0,3     | 24,1        | 57     |
|                                          | % within The brand being used   | 19,30%                                | 24,60%       | 0,00%                                        | 5,30%  | 1,80%   | 49,10%      | 100%   |
|                                          | % within Choosing another brand | 23,90%                                | 22,60%       | 0,00%                                        | 50,00% | 100,00% | 32,60%      | 28,10% |

The participants who select their mobile phone brand as “others” indicated that they may change their mobile phone brand if the other one have better price or better technologies.

**Table 4.7: Reason for choosing another brand - Huawei and Other Brand users.**

| The brand of the mobile phone being used |                                 | The reason for choosing another brand |              |                                              |        |       |             | Total  |
|------------------------------------------|---------------------------------|---------------------------------------|--------------|----------------------------------------------|--------|-------|-------------|--------|
|                                          |                                 | I don't choose another brand          | Better price | Being used by many people of the other brand | Design | Color | Better tech |        |
| O<br>T<br>H<br>E<br>R                    | Count                           | 2                                     | <b>31</b>    | 2                                            | 0      | 0     | <b>21</b>   | 56     |
|                                          | Expected Count                  | 12,7                                  | 17,1         | 0,6                                          | 1,7    | 0,3   | 23,7        | 56     |
|                                          | % within The brand being used   | 3,60%                                 | 55,40%       | 3,60%                                        | 0,00%  | 0,00% | 37,50%      | 100%   |
|                                          | % within Choosing another brand | 4,30%                                 | 50,00%       | 100,00%                                      | 0,00%  | 0,00% | 24,40%      | 27,60% |
| H<br>U<br>A<br>W<br>E<br>I               | Count                           | 0                                     | 3            | 0                                            | 1      | 0     | 2           | 6      |
|                                          | Expected Count                  | 1,4                                   | 1,8          | 0,1                                          | 0,2    | 0     | 2,5         | 6      |
|                                          | % within The brand being used   | 0,00%                                 | 50,00%       | 0,00%                                        | 16,70% | 0,00% | 33,30%      | 100%   |
|                                          | % within Choosing another brand | 0,00%                                 | 4,80%        | 0,00%                                        | 16,70% | 0,00% | 2,30%       | 3,00%  |

It also has been inferred by the survey results that the brand of mobile phone used does not differ according to gender, educational status and monthly income status. ( $p>0,05$ ).

Table 4.8 shows the Kruskal-Wallis-H Test results which indicate the satisfaction average ranks in mobile phones being used of the participants. As per the test results, the difference between the mobile phone brand being used and the average rank of the group was found as significantly different ( $\chi^2=11,03$ ;  $df=3$ ;  $p=0,012$ ).

**Table 4.8: Results of the Kruskal Wallis-H Test – Satisfaction Average Ranks**

| Groups                  | N=203 | Satisfaction<br>Average Ranks | $\chi^2$ | df | p Value |
|-------------------------|-------|-------------------------------|----------|----|---------|
| Mobile phone being used |       |                               |          |    |         |
| Iphone                  | 84    | 112,43                        |          |    |         |
| Samsung                 | 57    | 94,63                         | 11,03    | 3  | 0,012   |
| Huawei                  | 6     | 142,58                        |          |    |         |
| Others                  | 56    | 89,51                         |          |    |         |

After Kruskal-Wallis-H Test, supplementary comparison techniques were applied in order to determine the group which is significantly different. Mann Whitney-U test was used in the analysis of the data consisting of two groups. As a result of the analysis, the difference was detected between the groups using Iphone and other brands. It is also detected that the difference is in favor of Iphone users. ( $U=1826,50$ ;  $z=-2,479$ ;  $p=0,013$ ). Moreover, the difference between the groups using Huawei and other brands is in favor of Huawei users ( $U=83,500$ ;  $z=-2,193$ ;  $p=0,028$ ), the difference between Iphone users and Samsung users is in favor of Iphone users. ( $U=1966,500$ ;  $z=-2,014$ ;  $p=0,044$ )

**Table 4.9: Results of the Kruskal Wallis-H Test – Brand effects on decision**

| Groups                  | N=203 | Brand decision<br>Average Rank | $\chi^2$ | df | p Value |
|-------------------------|-------|--------------------------------|----------|----|---------|
| Mobile phone being used |       |                                |          |    |         |
| Iphone                  | 84    | 120,76                         |          |    |         |
| Samsung                 | 57    | 107,3                          | 28,543   | 3  | 0       |
| Huawei                  | 6     | 73,59                          |          |    |         |
| Others                  | 56    | 89,51                          |          |    |         |

Table 4.9 shows the Kruskal-Wallis-H Test results which indicate if the brand had an effect the participant's decision while buying their current phone. As per the test results,

the difference between the mobile phone brand being used and the average rank of the group is found as significant. ( $\chi^2=28,543$ ;  $df=3$ ;  $p=0,000$ ).

After Kruskal-Wallis-H Test, supplementary comparison techniques were applied in order to determine the group which is significantly different. Mann Whitney-U test was used in the analysis of the data consisting of two groups. As a result of the analysis, the difference was detected between the groups using Iphone and other brands. It is also detected that the difference is in favor of Iphone users. ( $U=1276,500$ ;  $z=-4,764$ ;  $p=0,000$ ).

Moreover, the difference between the groups using Samsung and other brands is in favor of Samsung users ( $U=1053,000$ ;  $z=-3,227$ ;  $p=0,001$ ), the difference between Iphone users and Huawei users is in favor of Iphone users. ( $U=1966,500$ ;  $z=-2,014$ ;  $p=0,044$ ), the difference between Samsung users and Huawei users is in favor of Samsung users ( $U=78,500$ ;  $z=-2,305$ ;  $p=0,021$ ).

**Table 4.10: Average and Standard Deviation of the factors which effects on the renewal decision**

| <b>Survey Question:<br/>Please indicate your level of agreement with the<br/>following statements about the factors which effects<br/>on your renewal decision</b> | <b>N</b> | <b>Min</b> | <b>Max</b> | <b>Average</b> | <b>Standard<br/>Deviation</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|------------|----------------|-------------------------------|
| New fashion                                                                                                                                                        | 203      | 1          | 5          | 2,305          | 1,1921                        |
| Battery capacity loss                                                                                                                                              | 203      | 1          | 5          | 4,232          | 0,8388                        |
| Performance loss                                                                                                                                                   | 203      | 1          | 5          | 4,286          | 0,8884                        |
| New mobile phone launches                                                                                                                                          | 203      | 1          | 5          | 2,443          | 1,1477                        |
| New Technological Improvements                                                                                                                                     | 203      | 1          | 5          | 3,724          | 1,1137                        |
| I don't renew my phone until the current one is broken                                                                                                             | 203      | 1          | 5          | 3,808          | 1,0979                        |

As it is shown in Table 4.10, participants mostly agree to the reasons for the renewal of the mobile phone as "performance loss" ( $4,286\pm0,8884$ ) and "battery capacity loss" ( $4,232\pm0,8388$ ). On the other hand, participants mostly disagree to the phrases of "new fashion" ( $2,305\pm1,1921$ ) and "new mobile phone launches" ( $2,443\pm1,1477$ ) as their reason for the renewals.

**Table 4.11: Average and Standard Deviation of the factors which effects on the decision making**

| <b>Survey Question:<br/>Please indicate your level of agreement<br/>with the following features that affect<br/>your decision when you are choosing a<br/>new mobile phone.</b> | <b>N</b> | <b>Min</b> | <b>Maks</b> | <b>Average</b> | <b>Standard<br/>Deviation</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|-------------|----------------|-------------------------------|
| New Technological Improvements                                                                                                                                                  | 203      | 1          | 5           | 4,059          | 0,8363                        |
| Camera quality                                                                                                                                                                  | 203      | 1          | 5           | 4,025          | 0,87                          |
| Up to date operating system                                                                                                                                                     | 203      | 1          | 5           | 4,133          | 0,7624                        |
| Price                                                                                                                                                                           | 203      | 1          | 5           | <b>4,246</b>   | 0,7697                        |
| Advertisements                                                                                                                                                                  | 203      | 1          | 5           | 2,453          | 1,0252                        |
| Brand                                                                                                                                                                           | 203      | 1          | 5           | 3,527          | 1,1828                        |
| After-sale services                                                                                                                                                             | 203      | 1          | 5           | 4,005          | 0,9875                        |
| Fashion                                                                                                                                                                         | 203      | 1          | 5           | 2,355          | 1,1135                        |
| Security                                                                                                                                                                        | 203      | 1          | 5           | 4,015          | 0,9824                        |
| Durability                                                                                                                                                                      | 203      | 1          | 5           | 4,232          | 0,8209                        |
| Size                                                                                                                                                                            | 203      | 1          | 5           | 4              | 0,9544                        |
| Accessorize                                                                                                                                                                     | 203      | 1          | 5           | 3,246          | 1,1892                        |
| Color Options                                                                                                                                                                   | 203      | 1          | 5           | 2,961          | 1,1851                        |
| Design                                                                                                                                                                          | 203      | 1          | 5           | 3,931          | 0,9976                        |

Table 4.11 shows that participants' decision mostly affected by the price (4,246±0,7697), followed by durability (4,232±0,8209), up to date operating system (4,133±0,7624), new technological improvements (4,059±0,8363), camera quality (4,025±0,87), after-sale services (4,005±0,9875), security (4,015±0,9824) and size (4±0,9544). Contrarily, it is determined that fashion (2,355±1,1135), advertisements (2,453±1,025) and color options (2,961±1,1851) have least effects on the decision of buying a new mobile phone. As for the effect of the "Brand" of the mobile phone, it is in the middle of "not sure" and "agree" statistical distributions (3,527±1,1828).

Table 4.12 and 4.13 shows the Kruskal-Wallis-H Test results which indicate the participants' level of agreement with the situations that affect their decision when they are choosing a new mobile phone.

According to the test results, a significant differences are determined between the mobile phone brands and the factors of "price, advertisements, brand, after-sale services, fashion, security and size" which affecting their decision when people are choosing a new phone

For the “price” factor, the difference was detected between the groups of Iphone and Samsung users and other brand’ users. The difference is in favor of other brand’.

The importance of “advertisement” factor differentiated between the groups of Iphone and Samsung users and other brand’ users. The difference is in favor of Iphone and Samsung.

For the “brand” factor the difference was detected as; between Iphone and Samsung users and in favor of Iphone users, between Iphone and other brand users and in favour of Iphone users, between Iphone and Huawei users and in favor of Iphone users, between Samsung and other brand users in favor of Samsung users.

In the “after-sale service” factor, the difference was detected between the groups of Iphone and Samsung users and in favor of Iphone, Iphone and other brand users and in favor of Iphone.

In the analyse of the “fashion” factor, difference was detected between Iphone and other brand users and in favour of Iphone users, in “security” factor , difference was between Iphone and other brand users and in favour of Iphone users.

In the “size” factor, difference was detected between Huawei and Iphone users and in favour of Huawei users, between Huawei and other brand users and in favour of Huawei users, between Huawei and Samsung users and in favour of Huawei users.

On the contrary, there is no difference detected between the groups in the factors of “latest technological developments”, “Up to date operating system”, “camera quality”, “durability”, “accessorize options”, “color options” “design” (  $p>0,05$ ).

**Table 4.12: Results of the Kruskal Wallis-H Test – Features affecting decision**

| <b>Survey Question: Please indicate your level of agreement with the following features that affect your decision when you are choosing a new mobile phone</b> | <b>Average Rank</b> | <b><math>\chi^2</math></b> | <b>df</b> | <b>p value</b> | <b>The groups have difference</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-----------|----------------|-----------------------------------|
| New Technological Improvements                                                                                                                                 |                     | 1,69                       | 3         | 0,64           |                                   |
| Iphone                                                                                                                                                         | 106,23              |                            |           |                |                                   |
| Samsung                                                                                                                                                        | 99,24               |                            |           |                |                                   |
| Huawei                                                                                                                                                         | 116,83              |                            |           |                |                                   |
| Others                                                                                                                                                         | 96,47               |                            |           |                |                                   |
| Cameraquality                                                                                                                                                  |                     | 6,222                      | 3         | 0,101          |                                   |
| Iphone                                                                                                                                                         | 106,82              |                            |           |                |                                   |
| Samsung                                                                                                                                                        | 109,51              |                            |           |                |                                   |
| Huawei                                                                                                                                                         | 104,83              |                            |           |                |                                   |
| Others                                                                                                                                                         | 86,82               |                            |           |                |                                   |
| Uptodateoperatingsystem                                                                                                                                        |                     | 1,654                      | 3         | 0,647          |                                   |
| Iphone                                                                                                                                                         | 102,24              |                            |           |                |                                   |
| Samsung                                                                                                                                                        | 98,75               |                            |           |                |                                   |
| Huawei                                                                                                                                                         | 127,75              |                            |           |                |                                   |
| Others                                                                                                                                                         | 102,2               |                            |           |                |                                   |
| Price                                                                                                                                                          |                     | 8,259                      | 3         | <b>0,041</b>   |                                   |
| Iphone                                                                                                                                                         | 93,8                |                            |           |                | x                                 |
| Samsung                                                                                                                                                        | 96,55               |                            |           |                | x                                 |
| Huawei                                                                                                                                                         | 123                 |                            |           |                |                                   |
| Others                                                                                                                                                         | 117,6               |                            |           |                | X                                 |
| Advertisements                                                                                                                                                 |                     | 13,788                     | 3         | 0,003          |                                   |
| Iphone                                                                                                                                                         | 116,53              |                            |           |                | X                                 |
| Samsung                                                                                                                                                        | 101,57              |                            |           |                | X                                 |
| Huawei                                                                                                                                                         | 104,92              |                            |           |                |                                   |
| Others                                                                                                                                                         | 80,33               |                            |           |                | x                                 |
| Brand                                                                                                                                                          |                     | 26,797                     | 3         | 0              |                                   |
| Iphone                                                                                                                                                         | 121,69              |                            |           |                | X                                 |
| Samsung                                                                                                                                                        | 103,69              |                            |           |                | x, X                              |
| Huawei                                                                                                                                                         | 70,42               |                            |           |                | x                                 |
| Diğer                                                                                                                                                          | 74,13               |                            |           |                | x                                 |
| After-sale services                                                                                                                                            |                     | 6,237                      | 3         | 0,001          |                                   |
| Iphone                                                                                                                                                         | 119,21              |                            |           |                | X                                 |
| Samsung                                                                                                                                                        | 92,39               |                            |           |                | x                                 |
| Huawei                                                                                                                                                         | 116,33              |                            |           |                |                                   |
| Others                                                                                                                                                         | 84,43               |                            |           |                | x                                 |
| Fashion                                                                                                                                                        |                     | 12,931                     | 3         | 0,005          |                                   |
| Iphone                                                                                                                                                         | 117,25              |                            |           |                | X                                 |
| Samsung                                                                                                                                                        | 99,93               |                            |           |                |                                   |
| Huawei                                                                                                                                                         | 85,83               |                            |           |                |                                   |
| Others                                                                                                                                                         | 82,96               |                            |           |                | x                                 |
| Security                                                                                                                                                       |                     | 8,23                       | 3         | 0,041          |                                   |
| Iphone                                                                                                                                                         | 112,04              |                            |           |                | X                                 |
| Samsung                                                                                                                                                        | 103,35              |                            |           |                |                                   |
| Huawei                                                                                                                                                         | 106,33              |                            |           |                |                                   |
| Others                                                                                                                                                         | 85,11               |                            |           |                | x                                 |

**Table 4.13: Results of the Kruskal Wallis-H Test – Features affecting decision (continued)**

| Survey Question: Please indicate your level of agreement with the following features that affect your decision when you are choosing a new mobile phone | Average Rank | $\chi^2$ | df | p value | The groups have difference |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|----|---------|----------------------------|
| Durability                                                                                                                                              |              | 1,147    | 3  | 0,766   |                            |
| Iphone                                                                                                                                                  | 104,44       |          |    |         |                            |
| Samsung                                                                                                                                                 | 104,92       |          |    |         |                            |
| Huawei                                                                                                                                                  | 98,92        |          |    |         |                            |
| Others                                                                                                                                                  | 95,7         |          |    |         |                            |
| Size                                                                                                                                                    |              | 9,247    | 3  | 0,026   |                            |
| Iphone                                                                                                                                                  | 99,27        |          |    |         | x                          |
| Samsung                                                                                                                                                 | 93,11        |          |    |         | x                          |
| Huawei                                                                                                                                                  | 158,33       |          |    |         | X                          |
| Others                                                                                                                                                  | 109,1        |          |    |         | x                          |
| Accessorize                                                                                                                                             |              | 3,515    | 3  | 0,319   |                            |
| Iphone                                                                                                                                                  | 108,64       |          |    |         |                            |
| Samsung                                                                                                                                                 | 104,03       |          |    |         |                            |
| Huawei                                                                                                                                                  | 87,33        |          |    |         |                            |
| Others                                                                                                                                                  | 91,54        |          |    |         |                            |
| ColorOptions                                                                                                                                            |              | 7,624    | 3  | 0,054   |                            |
| Iphone                                                                                                                                                  | 108,77       |          |    |         |                            |
| Samsung                                                                                                                                                 | 110,06       |          |    |         |                            |
| Huawei                                                                                                                                                  | 82,25        |          |    |         |                            |
| Others                                                                                                                                                  | 85,76        |          |    |         |                            |
| Design                                                                                                                                                  |              | 1,272    | 3  | 0,736   |                            |
| Iphone                                                                                                                                                  | 100,74       |          |    |         |                            |
| Samsung                                                                                                                                                 | 105,24       |          |    |         |                            |
| Huawei                                                                                                                                                  | 121,5        |          |    |         |                            |
| Others                                                                                                                                                  | 98,51        |          |    |         |                            |

Table 4.14 shows the the Kruskal-Wallis-H Test results which indicate if the scale scores of the openness personality in five factor personality test differentiated or not as per the mobile phone brands being used

**Table 4.14: Results of the Kruskal Wallis-H Test – Openness personality and brands being used**

| Groups                  | N=203 | Openness Average Ranks | $\chi^2$ | df | p Value |
|-------------------------|-------|------------------------|----------|----|---------|
| Mobile phone being used |       |                        |          |    |         |
| Iphone                  | 84    | 106,64                 |          |    |         |
| Samsung                 | 57    | 96,34                  | 1        | 3  | 0,778   |
| Huawei                  | 6     | 104,08                 |          |    |         |
| Others                  | 56    | 100,58                 |          |    |         |

Participants' personality scores such as being innovative, creative thinking, openness to the new experiences was analyzed by the Kruskal-Wallis-H Test. The difference between average ranks and the mobile phone brand groups was found as not significant ( $p>0,05$ ).

Table 4.16 shows the Kruskal-Wallis-H Test results which indicate if the scale scores of the openness personality in five factor personality test differentiated or not as per participants' renewal frequency of their mobile phones

**Table 4.15: Results of the Kruskal Wallis-H Test – Openness personality and the renewal frequency of the mobile phones**

| Groups                        | N=203 | Openness<br>Average Ranks | $\chi^2$ | df | p Value |
|-------------------------------|-------|---------------------------|----------|----|---------|
| Frequency of renewal          |       |                           |          |    |         |
| Once a year                   | 10    | 119,4                     |          |    |         |
| Once in two years             | 42    | 107,42                    | 3        | 3  | 0,354   |
| Once in three years           | 65    | 92,18                     |          |    |         |
| Less than once in three years | 86    | 104,76                    |          |    |         |

As per the test results, the difference between openness personality and the groups of participants' frequency of mobile phone renewal is not found as significant. ( $p>0,05$ ).

#### 4.4 HYPOTHESIS TESTING

In this part, the results of the analysis and the hypothesis are compared.

*Hypothesis 1:* There is a positive correlation between the openness personality of the consumers and the mobile phone brand they choose.

As per the results of the analysis, there is no significant difference detected between the openness personality of the customers and the mobile phone brand they choose. Therefore Hypothesis 1 is rejected.

*Hypothesis 2:* Customer's preference, which is based on the brand while buying their current phone, is related with the brand of the phone they were using before.

The analysis shows that the difference between the factor of brand that affects on the customers' decision while buying their current phone and the brand of the phone they were using is significant.

iPhone user group is significantly affected by the brand factor while buying a new phone differ from the group who are using Huawei and other brands; moreover Samsung user group are also significantly affected by the brand factor while buying a new phone differ from the group who are using Huawei and other brands. Therefore Hypothesis 2 is accepted.

*Hypothesis 3:* Customers' satisfaction from their existent mobile phone is related with the mobile phone brand they were using.

As a result of the research, there is a significant difference between customers' satisfaction from their existing mobile phone and the mobile phone brand they have been using.

It is understood that iPhone users' group is more satisfied than the group of other brands users; Huawei users' group is more satisfied than the group of other brands users; iPhone users' group is more satisfied than the group of Samsung users. Therefore Hypothesis 3 is also accepted.

*Hypothesis 4:* There is a positive correlation between the openness personality of the consumers and the frequency of the participants' mobile phone renewal

The analysis shows us that there is no significant difference detected between the openness personality of the consumers and the frequency of the participants' mobile phone renewal. Therefore Hypothesis 4 is rejected.

*Hypothesis 5:* Customers' preference, which is based on the latest technological developments while choosing a new phone is related to the mobile phone brand they were using.

As per the results of the analysis, consumers' preference, which is based on the latest technological developments while choosing a new phone is not related to the mobile phone brand they were using. Therefore Hypothesis 5 is rejected.

*Hypothesis 6:* Customer's preference, which is based on the brand while buying a new phone, is related with the brand of the phone they were using before.

The analysis results shows us that customer's preference, which is based on the brand while buying a new phone differs by the brand of the phone they were using before.

For the “brand” factor the difference was detected as; between Iphone and Samsung users and in favor of Iphone users, between Iphone and other brand users and in favour of Iphone users, between Iphone and Huawei users and in favor of Iphone users, between Samsung and other brand users in favor of Samsung users. Therefore Hypothesis 6 is accepted.

## 5. CONCLUSION

This study aims to investigate the mobile phone market in the innovation and brand perception base. For this goal, results of the analysis from the study indicate that there are a strong relationship between innovation and brand perception.

In order to determine the main hypothesis, survey technique was applied to the mobile phone users. 203 participants answered the questions. 84 people of the total participants are female and 119 are male. 58,6 percent of the participants are in the age range from 29 to 39. 87,2 percentage of the participants have bachelor's degree or above education level. 31 percentage of the attendees have an income between 1600 TL-2600 TL, 23,7 percentage have 5601 or above.

As a sample group of Iphone, Samsung, Huawei users are compared with the other brand users. Within those groups, Iphone and Samsung user groups especially selected because those two brands are at the top of the list are the most innovative and the most valuable brands.

From this point of view, below mentioned findings can be inferred from the result of the survey:

69,5 percent of the attendees are using iPhone and Samsung which are the most innovative brands among the mobile phone brands. Especially in mobile phone market, competition is so high. The mobile phone industry started with Motorola, Ericsson and Nokia, which were dominating the market for a long time, but after development of smart phones they couldn't survived for a long time. There have been many new entrants into the market but they couldn't succeed as much as iPhone and Samsung. Those two brands innovate their products every year and because of that those are winner of the competition.

Another result of the survey which support this thesis is that 42,4 percent of participants expressed that technological superiority is the main reason for replacing their phone with another brand. This means that customers are following technological

developments and taking it into the considerations. 30,5 percent pay attention to the other marketing tools such as pricing and after-sale services, however the highest rate think that technological superiority matters. 22,6 percent of the attendees stated that they do not change the phone brand they've been using in any case.

While Samsung users state that choosing another brand depends on better technologies of the other mobile phone brand, most of the Iphone users express their ideas that they never change mobile phone brand they used, or they may change in case of the technological superiority of the other brands. The survey results also show that users of Iphone, which is the most innovative mobile phone brand, have also a strong brand loyalty.

Another result also shows the brand effect on the participant's decision while buying a new phone. As per the analysis, Iphone and Samsung users stated that brand factor affect their decision when they are choosing a new mobile phone.

Summary of the analysis results as, %69,5 percent of the participants use Iphone and Samsung brand mobile phones. Moreover, these users have strong brand loyalty. Considering that Iphone and Samsung are two of the most innovative mobile phone companies in the world as Boston Consulting Group ranked<sup>45</sup> and it can be inferred that those companies have very strong brands. In addition to that, most of the participants pay attention to the technologic improvements and technologic superiorities. Regarding these survey results, companies should both keep themselves innovative and focus on their brand equities.

As a conclusion, this study demonstrates that innovation is crucial for a strong brand strategy. In this modern economy, companies must invest on the innovations of their products or services in order to be strong. Brand management strategies make companies stronger but in the long term the innovative brands wins. Although this study focused on the mobile phone market, many industries have similar positions. As for the other industries which have less competition, they should innovate their products, services or methods only for avoiding the competition, but also for reducing costs.

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<sup>45</sup> [www.bcg.com](http://www.bcg.com)

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## APPENDIX



## Appendix 1: The questionnaire

1 - What is the brand of your mobile phone?

- a. Iphone      b. Samsung      c. Huawei      d. Others

2 - What is the most important factor to choose another brand when you decide to replace your current mobile phone?

- a. Better technologies of the other brand  
b. Being used by many people of the other brand  
c. Different color options of the other brand  
d. Lower price and better customer service  
e. Design of the other brand  
f. I don't prefer the other brand.

3 - Have you changed your mobile phone in one year?

- a. Yes                      b. No

4 - How often do you change your mobile phone?

- a. Once a year  
b. Once in two years  
c. Once in three years  
d. Less than three years

5 - Please indicate your level of agreement with the following phrases about your satisfaction from your existing mobile phone

|                                            | Strongly agree | Agree | Neutral/Neither agree nor disagree | Disagree | Strongly disagree |
|--------------------------------------------|----------------|-------|------------------------------------|----------|-------------------|
| I am satisfied                             |                |       |                                    |          |                   |
| Brand affected on my mobile phone decision |                |       |                                    |          |                   |

6 - Please indicate your level of agreement with the following statements about the factors which effects on your renewal decision.

|                                                        | Strongly agree | Agree | Neutral/Neither<br>agree nor disagree | Disagree | Strongly disagree |
|--------------------------------------------------------|----------------|-------|---------------------------------------|----------|-------------------|
| New fashion                                            |                |       |                                       |          |                   |
| Battery capacity loss                                  |                |       |                                       |          |                   |
| Performance loss                                       |                |       |                                       |          |                   |
| New mobile phone launches                              |                |       |                                       |          |                   |
| New Technological Improvements                         |                |       |                                       |          |                   |
| I don't renew my phone until the current one is broken |                |       |                                       |          |                   |

7 - Please indicate your level of agreement with the following features that affect your decision when you are choosing a new mobile phone.

|                                | Strongly agree | Agree | Neutral/Neither<br>agree nor disagree | Disagree | Strongly disagree |
|--------------------------------|----------------|-------|---------------------------------------|----------|-------------------|
| New Technological Improvements |                |       |                                       |          |                   |
| Camera quality                 |                |       |                                       |          |                   |
| Up to date operating system    |                |       |                                       |          |                   |
| Prices                         |                |       |                                       |          |                   |
| Advertisements                 |                |       |                                       |          |                   |
| Brand                          |                |       |                                       |          |                   |
| After-Sale services            |                |       |                                       |          |                   |
| Fashion                        |                |       |                                       |          |                   |
| Security                       |                |       |                                       |          |                   |
| Durability                     |                |       |                                       |          |                   |
| Size                           |                |       |                                       |          |                   |
| Accessorize Options            |                |       |                                       |          |                   |
| Color Options                  |                |       |                                       |          |                   |
| Design                         |                |       |                                       |          |                   |

8 - Please indicate your level of agreement with the following statements about yourself

|                                                | Strongly agree | Agree | Neutral/Neither agree nor disagree | Disagree | Strongly disagree |
|------------------------------------------------|----------------|-------|------------------------------------|----------|-------------------|
| I have a rich vocabulary                       |                |       |                                    |          |                   |
| I have a vivid imagination                     |                |       |                                    |          |                   |
| I have excellent ideas.                        |                |       |                                    |          |                   |
| I am quick to understand things                |                |       |                                    |          |                   |
| I do not avoid philosophical discussions       |                |       |                                    |          |                   |
| I make conversations deeper                    |                |       |                                    |          |                   |
| I am full of ideas                             |                |       |                                    |          |                   |
| I have difficulty understanding abstract ideas |                |       |                                    |          |                   |
| I am not interested in abstract ideas          |                |       |                                    |          |                   |
| I do not have a good imagination.              |                |       |                                    |          |                   |

9 – Your gender

- a. Female                      b. Male

10 – Education Status

- a. Primary School  
b. Secondary School  
c. High School  
d. Bachelors Degree  
e. Masters Degree or higher

11 – Your Age

- a. 18-28  
b. 29-39  
c. 40-50  
d. 51 and above

12 – Your monthly income

- a. 1600 TL -2600 TL  
b. 2601 TL - 3600 TL  
c. 3601 TL - 4600 TL  
d. 4601 TL - 5600 TL  
e. 5601 TL or higher

## Appendix 2: Anket

1 - Kullandığınız telefonun markası nedir?

- a. Iphone      b. Samsung      c. Huawei      d. Diğer

2 - Kullandığınız telefonu değiştirmeye karar verdiğinizde farklı bir markayı tercih etmenizde etkili olacak en önemli etken aşağıdakilerden hangisidir?

- g. Diğer markanın teknolojik üstünlüğü  
h. Diğer markanın birçok insan tarafından kullanılıyor olması  
i. Diğer markanın farklı renk seçeneklerinin olması  
j. Diğer markanın daha uygun fiyatlı olması hizmetinin iyi olması  
k. Diğer markanın tasarımı  
l. Diğer marka tercih etmem.

3 - Telefonumu son bir yıl içerisinde değiştirdim

- a. Evet      b. Hayır

4 - Telefonunuzu ne sıklıkla değiştirirsiniz?

- a. Yılda bir  
b. İki yılda bir  
c. Üç yılda bir  
d. Daha seyrek

5 - Mevcut telefonunuzla ilgili aşağıdaki ifadelere ne derecede katıldığınızı belirtiniz.

|                                        | Kesinlikle katılıyorum | Katılıyorum | Emin değilim | Katılmıyorum | Kesinlikle katılmıyorum |
|----------------------------------------|------------------------|-------------|--------------|--------------|-------------------------|
| Memnunum                               |                        |             |              |              |                         |
| Telefon seçiminde markanın etkisi oldu |                        |             |              |              |                         |

6 - Telefonunuzu deęiřtirme kararınızda ařaęıdaki ifadelerin sizi ne derecede etkiledięini belirtiniz.

|                                       | Kesinlikle katılıyorum | Katılıyorum | Emin deęilim | Katılmıyorum | Kesinlikle katılmıyorum |
|---------------------------------------|------------------------|-------------|--------------|--------------|-------------------------|
| Moda                                  |                        |             |              |              |                         |
| Pil mr                              |                        |             |              |              |                         |
| Telefonun performansının dřmesi      |                        |             |              |              |                         |
| Yeni modelin ıkması                  |                        |             |              |              |                         |
| Yeni teknolojik geliřmeler            |                        |             |              |              |                         |
| Bozulana kadar telefonumu deęiřtirmem |                        |             |              |              |                         |

7 - Yeni bir telefon seerken ařaęıdaki zelliklerin kararınızı ne derece etkiledięini belirtiniz

|                                            | Kesinlikle katılıyorum | Katılıyorum | Emin deęilim | Katılmıyorum | Kesinlikle katılmıyorum |
|--------------------------------------------|------------------------|-------------|--------------|--------------|-------------------------|
| Son teknolojik geliřmeler                  |                        |             |              |              |                         |
| Kamera zellikleri                         |                        |             |              |              |                         |
| Telefonun gncel iřletim sisteminin olması |                        |             |              |              |                         |
| Fiyatı                                     |                        |             |              |              |                         |
| Reklamlar                                  |                        |             |              |              |                         |
| Marka                                      |                        |             |              |              |                         |
| Satıř sonrası hizmetleri                   |                        |             |              |              |                         |
| Moda                                       |                        |             |              |              |                         |
| Gvenlik                                   |                        |             |              |              |                         |
| Fiziksel dayanıklılık                      |                        |             |              |              |                         |
| Boyut                                      |                        |             |              |              |                         |
| Aksesuar seenekleri                       |                        |             |              |              |                         |
| Renk seenekleri                           |                        |             |              |              |                         |
| Tasarım                                    |                        |             |              |              |                         |

8 - Aşağıdaki ifadelerin sizi ne derece tanımladığını belirtiniz.

|                                         | Kesinlikle<br>katılıyorum | Katılıyorum | Emin değilim | Katılmıyorum | Kesinlikle<br>katılmıyorum |
|-----------------------------------------|---------------------------|-------------|--------------|--------------|----------------------------|
| Zengin bir kelime dağarcığım vardır     |                           |             |              |              |                            |
| Canlı bir hayal dünyam vardır           |                           |             |              |              |                            |
| Mükemmel fikirlerim vardır              |                           |             |              |              |                            |
| Yeni şeyleri çabuk kavrarım             |                           |             |              |              |                            |
| Felsefi tartışmalardan kaçınmam         |                           |             |              |              |                            |
| Sohbetleri derinleştiririm              |                           |             |              |              |                            |
| Fikirlerle dolu bir insanım             |                           |             |              |              |                            |
| Soyut fikirleri anlamada zorluk çekerim |                           |             |              |              |                            |
| Soyut fikirlerle ilgilenmem             |                           |             |              |              |                            |
| İyi bir hayal gücüm yoktur.             |                           |             |              |              |                            |

9 - Cinsiyetiniz

- a. Kadın b. Erkek

10 - Eğitim durumunuz

- f. İlkokul  
g. Ortaokul  
h. Lise  
i. Üniversite  
j. Yüksek Lisans ve üstü

11 - Yaşınız

- e. 18-28  
f. 29-39  
g. 40-50  
h. 51 ve üzeri

12 - Aylık gelir durumunuz

- f. 1600-2600  
g. 2601-3600  
h. 3601-4600  
i. 4601-5600  
j. 5601 ve üstü