

**Factors Influencing Purchase of Digital Electronic
Devices from the market in the North Cyprus–
an Empirical Study**

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ABSTRACT

With the development of technology, digital devices and products is increasingly common nowadays. People can search for and buy new digital products much more conveniently and efficiently than older one. In fact, the number of people who choose new digital products is continuously increasing.

This dissertation is concerned with the factors that affect Cypriots“to purchase of Digital Electronic Devices from the market in the north Cyprus”. This research uses a mixed methodology, which includes quantitative and qualitative methods, and the information has been collected by questionnaire and interview. A total of 197persons from different parts of the world responded to the survey and 11individuals were interviewed.

The information gathered in the research is analyzed in comparison with relevant literature. Some key factors were defined by reviewing the relevant literature: including price, convenience, new technology, bias, design, advertisement and service. These factors provide a structure to research in this dissertation and enable some new factors to be found.

Keywords:Digital devices, selection criteria, North Cyprus economy, Factor analysis.

ÖZ

Teknolojinin gelişmesiyle, dijital cihazlar ve ürünler bugünlerde yaygın olarak artış göstermektedir. İnsanlar eskisinden daha uygun ve etkili dijital ürünleri araştırıp satın alabiliyorlar. Gerçekten de yeni dijital ürünleri seçenin insanların sayısı sürekli olarak artmaktadır.

Bu tez; ‘Kuzey Kıbrıs piyasasında Dijital Elektronik cihazların satın alınması ile’ Kuzey Kıbrıslıları etkileyen faktörlerle ilgilidir. Bu araştırma, nicelik ve nitelikle ilgili metodları kapsayan bir karma yöntemle kullanılmış ve bilgiler anket ve röportajla toplanmıştır. Dünyanın değişik bölgelerinden toplam 197 kişi anketi yanıtlamış ve 11 kişi ile de röportaj yapılmıştır.

Araştırma içerisinde toplanan bilgiler, yazılmış kitaplarla alakalı olarak analiz

Edilmiş ve karşılaştırılmıştır. Yazılmış kitaplar tarafından tanımlanmış bazı anahtar faktörler: (fiyat, kullanım kolaylığı, yeni teknoloji, önyargı, tasarım, reklam ve hizmet) yeniden gözden geçirilmiştir. Bu faktörler bu tezin araştırma planlamasını sağlamak için ve bazı yeni faktörlerin bulunmasına olanak vermektedir.

Anahtar kelimeler: Dijital cihazlar, seçilmiş kriterler, Kuzey Kıbrıs ekonomisi, factor analizleri.

I dedicate this dissertation to my family, especially...

To Dad and Mom for instilling the importance of hard work;

To my elder Brother, Hadi, for opening my eyes to the world;

To grandma, for encouragement;

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Chapter 1

INTRODUCTION

1.1 Introduction

It is obvious to every educated person that the technology and digital devices are playing a significant role in our lives and also in the life of societies. Nowadays, digital devices are rapidly growing and a lot of new products proliferate among people in different places in the world. Not too long ago, people connected to the internet with their computer desktop or their laptop. Now, we can see that the shape of digital devices is going to change to products like; Smartphone, 3D televisions or LED full HD televisions, tablets, and other connected devices. As consumers move toward using new digital devices, international manufacturers' leaders and producers across the industries are trying to present their new products which meet customers' desires and they will shift consumer's mind to new digital devices and products. Despite these views, purchasing behavior from customers is very important to producers and manufacturers in one hand and on the other hand for markets and business owners.

1.2 Scope and Objectives of This Study

The purpose of this study is to identify and analyzing of customer behaviors in selecting digital devices products and main critical variables which playing a significant role in digital products market in North Cyprus.

1.3 Methodology of This Study

In terms of research, this study is descriptive research and in terms of result is functional research. Research community is people who are living in North Cyprus and our sample size is 197 persons from this society. For collecting data we used the quantitative questionnaire methods and for analyzing the data SPSS and EXCEL software are used.

1.4 Findings of This Study

The result of this study shows that, seven main factors which are influencing the selection of digital devices among TRNC people. The factors from the most important to the least important factors are sorted as; new technology, design, brand, service, price, advertisement and bias. Variables such as gender, occupation, work experience, educational level and family size have significant effect on those main factors.

1.5 Structure of This Thesis

Chapter 1 is the introductory part. Chapter 2 reviews the relevant literature on the concept of digital devices/ and presents the recent evidence on the issue. Chapter 3 contains an overview on the concept of digital devices and their position in the North Cyprus economy. In Chapter 4, Data, methodology and the instrument used. Chapter 5 presents empirical results. In Chapter 6, concluding remarks, managerial implications and some recommendations are presented.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

Nowadays, a lot of studies in the world are discussing about factors and agents that affect and motivate customers to purchase different digital devices, knowing consumer preferences and their purchasing factors are very important for manufacturing companies and also shop owners.

This literature review will be discussed and refers to some papers and books which are relative to my thesis topic. Previous researches most explored customer decision making in one particular product and their purchasing factors in the digital world. Most of the selected papers and books presented and published in the period from 2005 to 2012.

In this section, some previous studies about the world situation on digital place and statistics about digital products will be exposed to discuss. Then, the discussed some papers and their analyses about different digital devices such as cell phones and laptop on different countries.

2.2 Global Statistics about Digital Devices

ACCENTURE is one of global management technology and consulting company which has clients in more than 120 countries. Recently they researched and published a report as a title of “Always On, Always Connected”. They have studied

the preferences of consumers for purchasing digital and technological devices and services. This annual research collected for better understanding of customers to purchasing and to gain deeper insights of new digital products. Their 2012 study also which is based on a September 2011 survey of more than 10,000 digital device customers across 10 countries. In the body of this report they founded some interesting statistics about Smartphone and tablet computer usage in the world and purchasing plans of customers in the past 12 months. The figure1 shows that, Smartphone ownership has increased remarkably day by day and consumers replace their phones to Smartphone with internet connected option and many other new technological features. In fact, these kinds of phones have rapidly moved from being new to mainstream as the phone of popular. In this research, more than 50% of their customers had Smartphone and this percentage increased 25% in the past 12 months, or 89% of growth rate over the 2011.

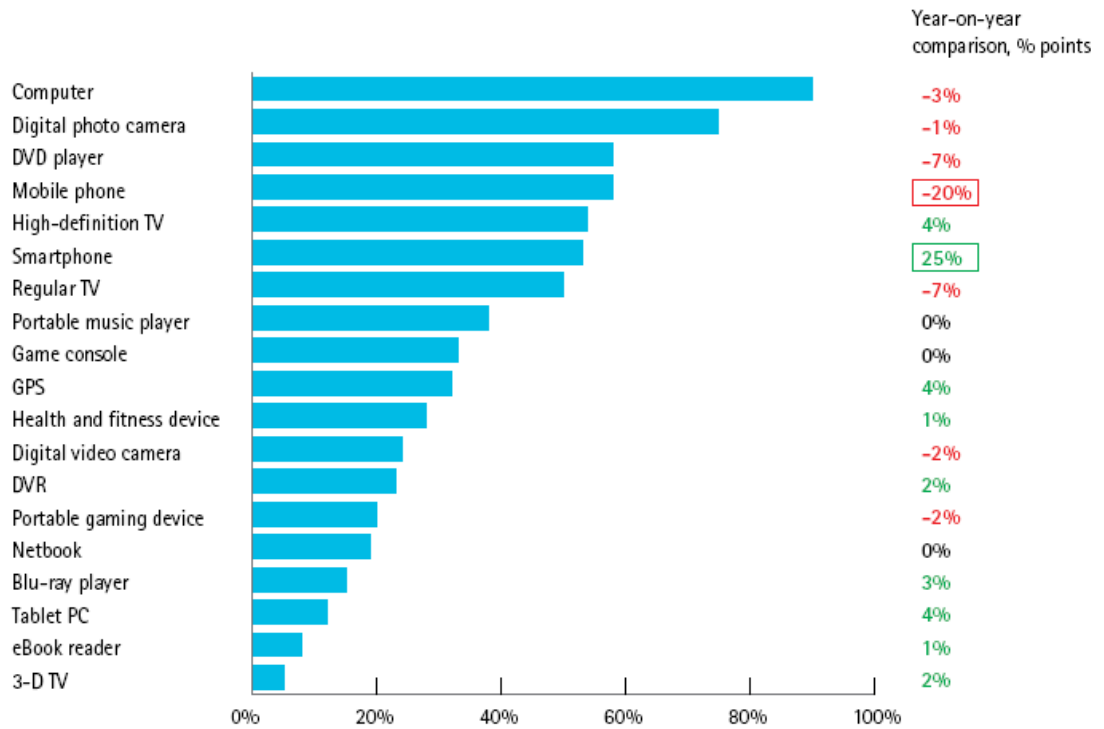


Figure 1. Consumer Electronics Currently Owned

Mobile technology rapidly changes among manufactures and then consumers followed them.

While consumers have their desktop or laptop computer and changing of them is not so easy by customers. Figure 2 compares consumer electronics purchased in 2011. In the first chart, at the same time in 2010 and 2011, Smartphone and tablet PC ownerships are increasing intensity.

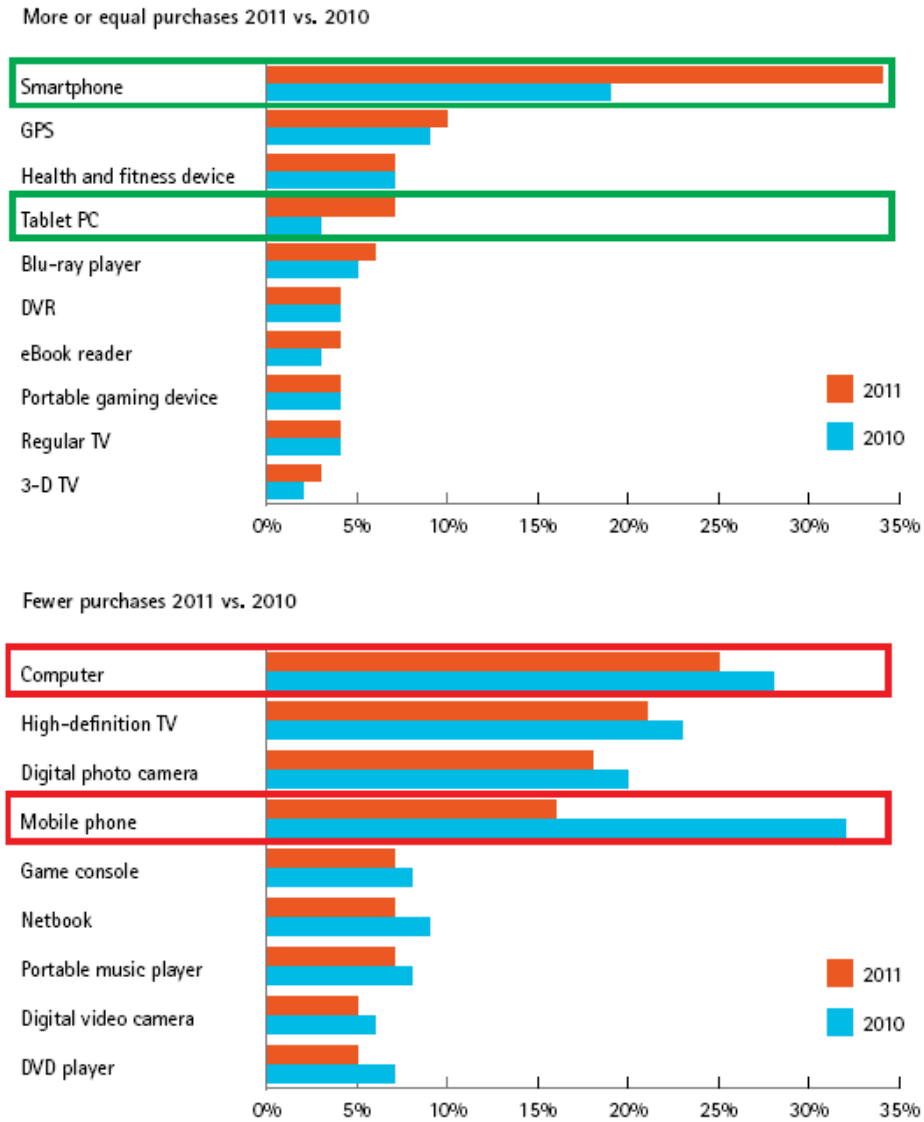


Figure 2. Consumer Electronics Purchased in the Last 12 Months

Indeed, demands for mobile phones and computer, decreased in 2011 in comparison by 2010 demands. Digital devices demands in today's world increase day by day and smart digital devices and tablets are going to be popular among people in the world.

According to that report, younger consumers which categorized under 35 years old are more leading to adoption of new digital technology and products. The figure 3 shows that, new products such as Smartphone and computer tablet are more popular

among young people and these products are a higher margin owned by young people. In addition, young generation consumers are more ambitious in their purposes. Younger consumers are more active than older consumers.

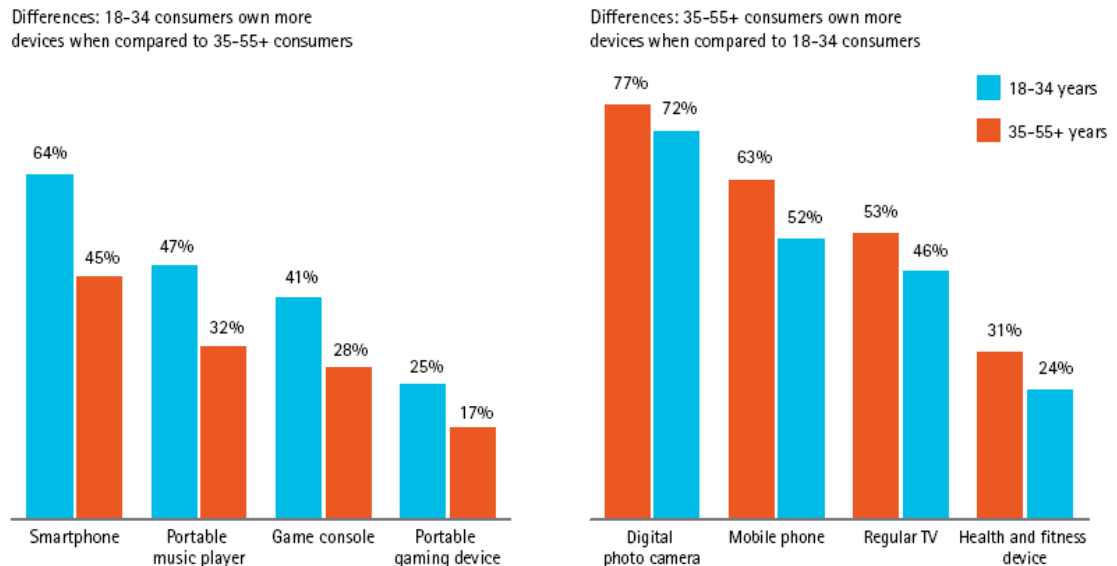


Figure 3. Differences in Consumer Electronics Ownership by Age

The charts compare digital device owner between the two different age group consumers in the last 12 months among 10 countries people.

It is clear from the chart that, Smartphone, portable music player, game consoles and portable gaming devices are more popular among younger and they owned more these products in compare of older consumers. On the other hand, right bar chart shows that some digital devices are more common among older consumers such as digital photo camera, mobile phone, regular television and health and fitness devices. Elders tend to be the owners of these goods are more than younger consumers.(Accenture, 2012)

2.3 Malaysian Student's Choice Criteria in Mobile Phone Selection

The study by Safiek Mokhlis and Azizul Yadi Yaakop, in the Malaysia showed that to inquire selection criteria for purchasing mobile phone among students in Malaysia, and also introduced some factors that describe the most common criteria among them. The study improves knowledge of consumer behavior which is much impressed by features of products, and also consumers purchasing decisions are based on their individual evaluation of various product attributes. The results of their study in Malaysia showed, seven factors are more important and characterize mobile phone choice among students of Malaysia, including; media influences, innovative features, general image, personal recommendation, product price, durability aspects and portable form, and post services or customer supporting service.

According to the study, previous researches about purchasing a mobile phone, innovation and novelty features are the most significant factor for selection of mobile phones by students. This is probably related to those mobile phones which ignored about fashion accessories among student and youngsters. Therefore, novelty, innovation, and design are the most important features for consumers to choose mobile phones.

The article also states that, the second most important factor for selecting mobile phone by students in Malaysia is "personal recommendation". One acceptable reason for this study is that, changing and replacing mobile phones has a high degree of risk among students, so others advices and recommendations are more acceptable for this group of people. Consumers tend to trust others recommendations to control hazards of buying high-risk products. Word of mouth is a very useful advertising

methodology in nowadays societies; the importance of personal recommendation comes from this methodology. When a student or a consumer receives word of mouth about on a particular products or mobile phone, they benefit from reducing their risk and cost, or by reducing the intensity of the loss of suffered if their purchase will be dissatisfy.

After innovation feature and personal recommendation which founded from the study, the price factor is also important for selecting a mobile phone in Malaysia. According to the study, the most students who are living in Malaysia comes from different parts of the world and their home countries are under financial crisis (Mohamad Fazli Sabri,Christine C. Cook, Clinton G. Gudmunson, 2012).Their spending manner is based on the amount of money that they receive and they have to manage their financial life with that money. Some of them believe that the amount of money that they received, are not covered even their financial needs.

Other important criteria for purchasing a mobile phone among university students of Malaysia are shown in the figure 4. In this study, researchers generated data from a questionnaire from which responses were measured on a seven point scale of values from one “not at all important” to seven “very important” and they had 29 potential influencing factors about their choice of purchasing a mobile phone (Safiek Mokhlis, Azizul Yadi Yaakop, 2011).

Factor and item	Factor loading	Eigenvalue	% of variance explained	Cronbach Alpha
Factor 1: Innovative features		6.25	16.84	0.85
Built-in camera	0.815			
Larger memory capacity	0.768			
Multimedia	0.767			
Bluetooth and Infrared	0.679			
Audio and video recording	0.665			
Color screen	0.619			
Radio and MP3	0.532			
Design and styling	0.489			
Factor 2: Image		2.01	9.72	0.69
Expensive and limited edition	0.722			
Country of origin	0.677			
New product	0.549			
Brand image	0.467			
Accessories	0.418			
Factor 3: Price		1.81	9.65	0.55
Model at reduced price	0.743			
Special offer	0.700			
Alternative payment condition	0.511			
Factor 4: Personal recommendation		1.32	6.77	0.51
Salesperson's recommendation	0.737			
Family's recommendation.	0.574			
Friend's recommendation	0.570			
Factor 5: Durability and portable aspects		1.23	6.10	0.53
Physical durability	0.752			
Being light	0.570			
Small size	0.457			
Factor 6: Media influence		1.16	6.06	0.51
TV advertising	0.754			
Positive review in media	0.734			
Factor 7: Post-sales service		1.07	5.80	0.52
Guarantee and warranty	0.800			
After sale service	0.672			

Figure 4. Results of factor analysis for choices of mobile phone among university students of Malaysia

2.4 Iranian Students' Preferences for Laptop

In the research by Majid Behzadian, Mohammad Hasan Aghdaie and Hamid Reza Razavion high school students and university students who are known as the major group of the laptop buyers in Iran. They used a conjoint analysis known as traditional full-profile conjoint analysis. Survey data were collected through questionnaires during May 2011 in Iran. The total sample consisted of 400 respondents, 160 women and 240 men. This sample included a variety of students in high schools and universities. The results were established using the CVA approach and were analyzed further using SPSS statistical software. This study showed that the major determination of Iranian students' laptop preferences were Price (relative importance 27 percent), Size (relative importance 18 percent), Processor speed (relative importance 16 percent), Graphic card (relative importance 16 percent), Memory capacity (relative importance 14 percent) Hard disk (relative importance 9 percent).

Attribute	Level	Utility Estimate	Std. Error	Relative importance (%)
Processor speed (CPU)	Core i3 (up to 2.26 GHZ)	.403	.053	16
	Core i5 (2.26 up to 2.53 GHZ)	.805	.106	
	Core i5 (2.40 up to 2.93 GHZ)	1.208	.158	
	Core i7 (2.66 up to 3.33 GHZ)	1.611	.211	
Hard disk drive	250 GB	.109	.053	9
	320 GB	.217	.106	
	500 GB	.326	.158	
	750 GB	.435	.211	
Graphic card	256 MB	.615	.082	16
	512 MB	1.230	.165	
	1 GB	1.845	.247	
Price	800	-.655	.053	27
	1200	-1.310	.106	
	1600	-1.965	.158	
	2000	-2.620	.211	
Ram (Memory capacity)	2	.335	.053	14
	3	.671	.106	
	4	1.006	.158	
	6	1.342	.211	
Size (inch)	11 inch	.734	.251	18
	13 inch	1.134	.378	
	15 inch	1.199	.386	
	17 inch	.929	.299	
(Constant)	2.216	.417		

Figure 5. Results of factor analysis for Iranian Students' Preferences for Laptop

They observed a small gap between size, graphic card and processor speed. They suggest that the development of laptop for students is a complex process and, while students' final preferences may be determined by the most important attributes, they do consider other factors when making decisions (Majid Behzadian, Mohammad Hasan Aghdaie, Hamid Reza Razavi, 2011).

2.5 Factors Affecting Consumers' Choice of Mobile Phone Selection in Pakistan

The study by Naveed Saif, Nasir Razzaq, Muhammad Amad and Sajid Gul discusses the factors that affect/motivate Pakistani consumers in their mobile phone choice decision. A sample of 100 people was taken by using the sampling method of Convenience Sampling (or Accidental Sampling). A questionnaire was designed to find out what are the factors that affect the choice of a mobile phone selection in

Pakistani consumers. A sample size of 100 respondents was taken by using the Convenience Sampling method. Most of them were circulated amongst the students of Institute of Management Sciences and Edwardes College Peshawar; among the total 100 respondents 61 of them were male and 39 of them female. For this particular study four important factors i.e. price, size/shape, new technology name were selected and were analyzed through the use of questionnaire in registering consumers' perception of these factors. From the analysis it is clear that consumer value new technology features as the most important variable amongst all and it also acts as a motivational force that influences them to go for a new handset purchase decision.

The study also shows that the price does affect consumers' choice for a mobile phone but becomes less important of a factor as moving from low monthly income to higher income earning consumers. From the study it is clear that consumers in Pakistan are well aware of the new technology trends in the mobile phone industry. The study also reveals that male respondents were more interested in the new technological developments in the mobile phone industry as compared to female respondents (Naveed Saif, Nasir Razzaq, Muhammad Amad, Sajid Gul , 2012).

		Which factor to you is the most important in purchasing a mobile phone for yourself?				
		brand name	price	new technology features	size/shape	Total
Monthly income/pocket money?	2000-5000	15	3	18	1	37
	6000-10000	13	6	15	3	37
	11000-15000	6	1	10	2	19
	16000-25000	2	0	4	0	6
	40000+	1	0	0	0	1
	Total	37	10	47	6	100

Figure 6. Results of factors affecting consumers' choice of mobile Phone selection in Pakistan

2.6 The Impact of Culture on Mobile Phone Purchasing

According the study by Srikes Monthathip, Louvieris Panos and Collins Catherine, which is about different nationalities and cultures impact on mobile phone purchasing in Thailand and the UK, some important results come out.

This study was performed for comparing and identifying key cultural attributes which affect selecting and purchasing cell phones in Thai and the UK. According to distribution of 140 questionnaires among students who were studied at Surrey University data collected. The results indicated that there is a big difference between customers of Thailand and the UK regarding cell phones purchasing and selecting behavior. Hofstede's dimensions and cultural values of Schwartz's were used on that study. From these two charts, the "individualism" dimension and "power distance" dimension are considered.

The research has investigated the cultural attributes and customer's behavior has strong relationship with each other. Their questionnaire had 2 parts and 11 main questions divided to four sections. From the findings, customers from Thailand and British have the same attributes about "promotion" element and this factor was the most important factor among them. For Thai customers, "social acceptance" factor was playing most important acts in buying decision.(Srikes Monthathip, Louvieris Panos, Collins Catherine, 2009).

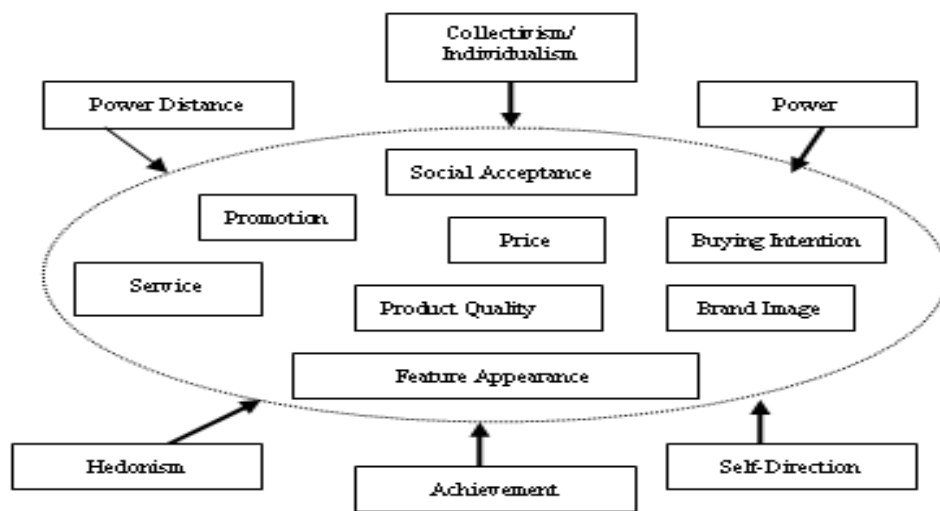


Figure 7.Hypothesized Model of the main variables of cultural attributes & buyer behavior

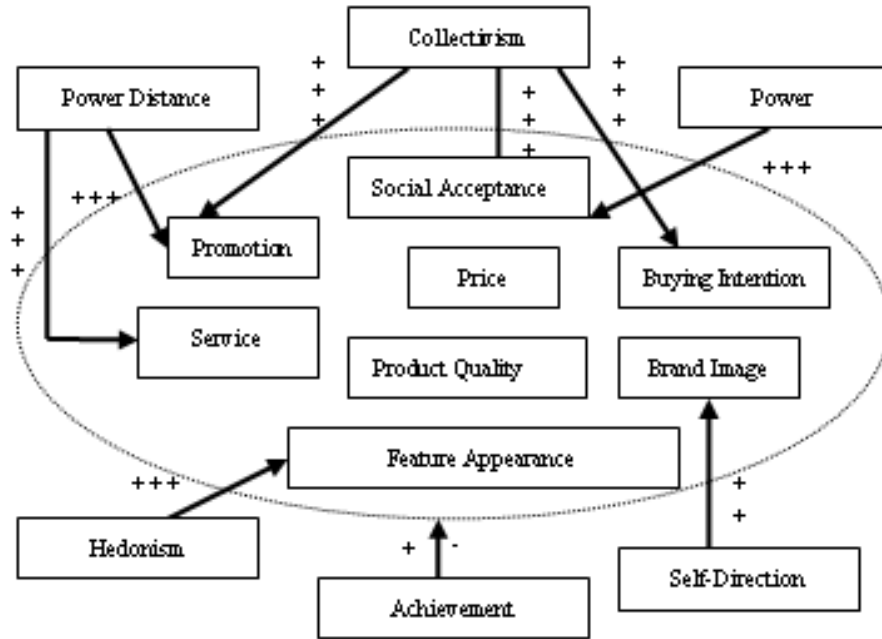


Figure 8. Framework developed for the marketing of mobile phone in Thailand

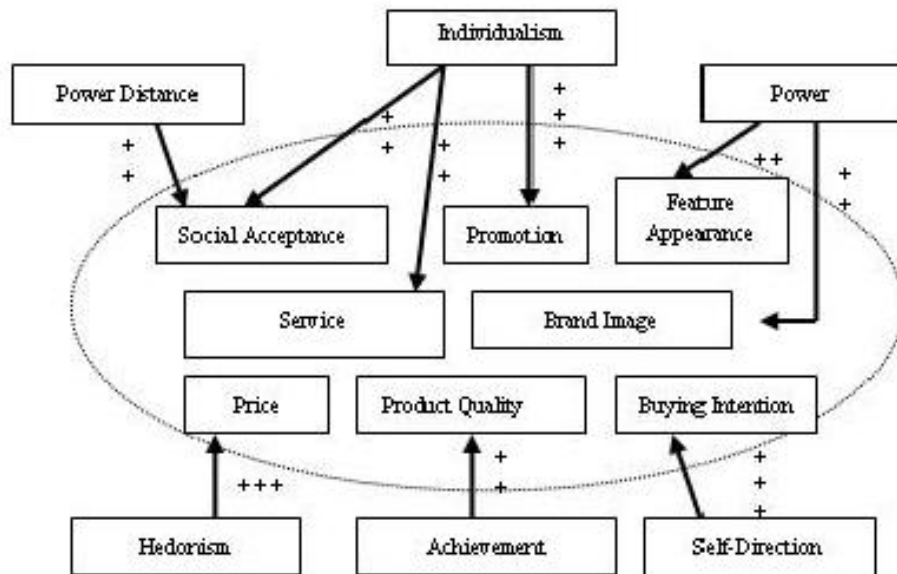


Figure 9. Framework developed for the marketing of mobile phone in the United Kingdom

Chapter 3

OVERVIEW ON THE CONCEPT OF DIGITAL DEVICES AND POSITION IN THE NORTH CYPRUS ECONOMY

3.1 Digital Economy

No one can cast a shadow on doubt of this fact that, relations between technology growth and economic are insoluble and they linked to each other.

The progress of the digital economy allows for producers and new businesses to create and innovate different opportunities to be more successful. Nevertheless, these businesses rapidly are changing their digital economy models to find better opportunities. Digital economy models will be required to make a more dynamic, flexible, resilient and innovative economy (AT&T, 2011).

According to Oxford economy research which they identified four key technologies (mobility, cloud computing, business intelligence and social media) that are now bringing it into adulthood, have a positive effect on the world businesses over the next five years. Figure 3.1 shows the percentage of four technology's impact on businesses for next five years.(AT&T, 2011).

This chart illustrates that, 57% of respondents claim that, mobile phone technology will have the greatest effect on businesses over the next five years. Following mobility impacts of remaining devices are; 37% expectation for Business intelligence, 36% of Cloud computing and 31% for Social media.

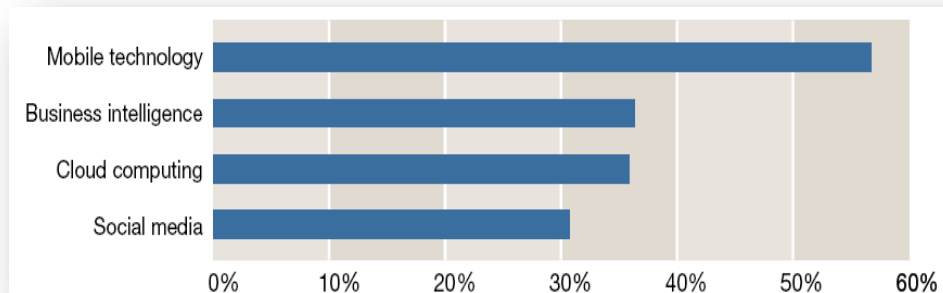


Figure 10. Digital technology trends for next five years

Following in this chart, mobile phone users in the world come to the Table 1. This table shows the users of mobile phone in million in different places in the world and as shown on the table, China is the biggest market for mobiles for next five years and Australia is the smallest place for trade-in mobile phones for next five years. (Caridi)

Table 1. Mobile phone users worldwide (millions)

	2009	2010	2011	2012	2013	2014	2015
China	574.9	671.1	762.8	851.9	926.7	996.0	1,062.1
India	358.6	516.2	618.4	698.9	781.3	840.7	901.2
Japan	102.9	104.0	105.0	105.9	106.8	107.7	108.5
South Korea	40.3	40.9	41.2	41.5	41.9	42.2	42.5
Australia	14.6	14.9	15.3	15.7	16.1	16.5	16.9
Other	519.0	557.4	600.5	639.2	677.9	717.8	758.4
Asia-Pacific	1,610.4	1,904.4	2,143.1	2,353.2	2,550.7	2,720.9	2,889.7
Germany	61.4	62.7	64.3	65.6	66.8	68.2	69.6
UK	51.5	52.4	52.9	53.5	53.9	54.4	54.7
France	45.7	47.3	48.8	50.0	51.3	52.2	53.0
Italy	43.5	45.3	47.0	48.4	49.8	51.2	52.0
Spain	33.5	34.4	35.3	36.1	36.9	37.6	38.3
Other	1,142.8	1,177.2	1,220.2	1,248.5	1,280.3	1,303.9	1,321.1
Europe	1,378.3	1,419.2	1,468.5	1,502.1	1,538.9	1,567.4	1,588.7
Middle East & Africa	343.4	381.6	422.5	460.0	496.6	526.7	563.3
Brazil	91.4	100.6	109.9	119.3	128.9	136.6	146.5
Argentina	29.0	31.0	32.2	33.3	34.5	35.3	36.0
Mexico	50.0	55.1	59.1	63.2	67.4	71.6	75.4
Other	161.0	167.9	174.3	180.3	184.8	189.1	192.8
Latin America	331.5	354.6	375.5	396.2	415.6	432.7	450.7
US	224.6	231.5	236.6	241.2	245.9	250.6	254.7
Canada	18.0	19.1	20.3	21.4	22.3	23.3	24.2
North America	242.6	250.6	256.9	262.6	268.2	273.9	278.9

Therefore, Smartphone as a popular new digital product among people has a high interesting place in the world. Smartphone users unbelievably increase day by day and minute by minute as figure 11 shows, three different percentages of growing Smartphone owners in five developed countries. The figure 12 also shows three percentages of growing tablet owners in that five countries including: UK, France, Germany, Japan, and US. The bottom-line percentages shows the Smartphone owners on January and February 2011, the middle-line percentages illustrate the Smartphone owners on October and September 2011 and the first-line percentages

shows the Smartphone owners on January and February 2012(Trends in digital device & internet usage, 2012).

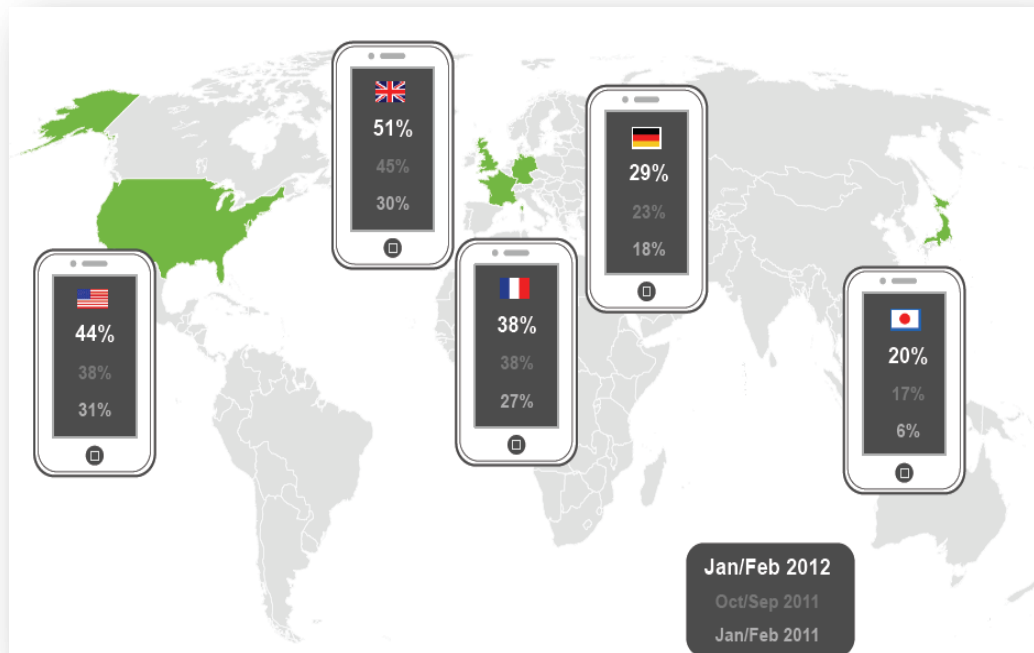


Figure 11. Smartphone Usage percentages in five developed countries

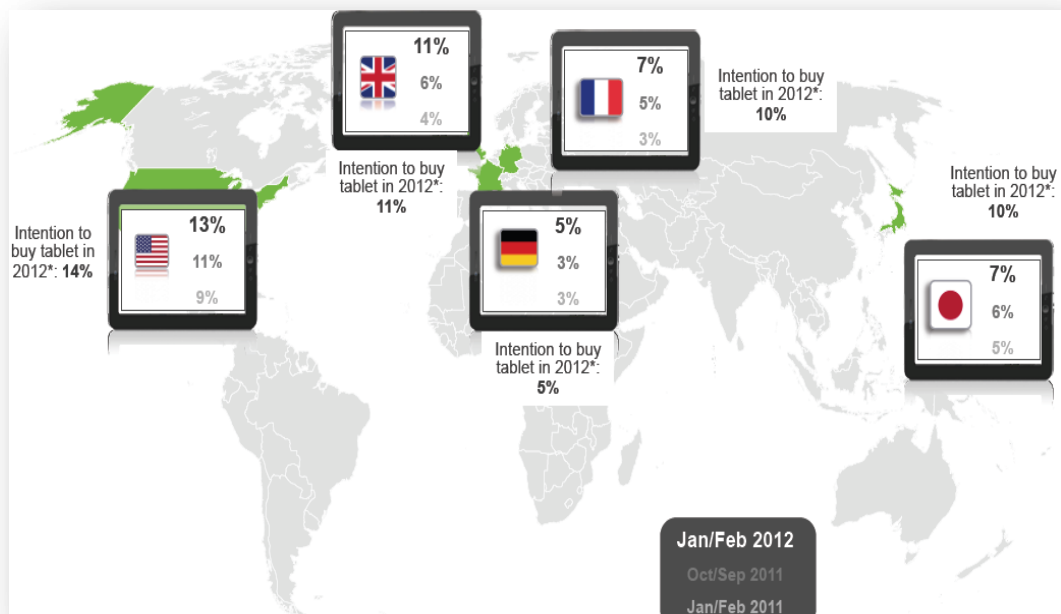


Figure 12. Tablet Usage percentages in five developed countries

These researches have thrown up many questions in need of further investigation about consumer behavior for purchasing digital devices in different countries.

These statistics enhance our understanding of growing new digital device owners in the world and there is an argument among different business leaders about whether it is beneficial to investigate in new zone opportunities or not?

3.2 Digital and Digital Devices

Digital defined any system which is working based on intermittent data, on the other word, each machine which is working with just two values, 0 and 1 or on and off called digital machines. The other side of digital is analogue which describes the numerical values of any quantitative data or events. Analogue data show two different values of one event. For example, the temperature degree of an oven can adjust from 0 to 100°C. (Maini, 2007)

To sum up, analogue presents values which give steady output and digital represents values which give divided output. The figure 13 shows the differentiation of digital and analogue signals on easy way.

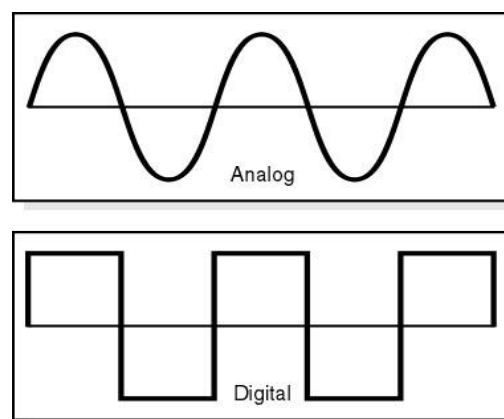


Figure 13. Differentiation of digital and analogue signals

The Sony Company designed their VAIO logo (figure 14) from differentiation of analogue and digital signal model. Letters of A and V on the logo represent an analogue and digital signal model.

analogue symbol and letters of I and O represent a digital symbol or 0 and 1 binary code.(sony.com)



Figure 14. VAIO logo representing an integration of analog and digital

Notwithstanding of these differentiations, nowadays two types of products (analog and digital) are widely used among people in the world, but digital devices are going to be more popular than analog devices. CDs, DVDs, laptops, computers, HD televisions, digital watches, audio and video recorders and players, Digital cameras, Smartphone, tablets and many other products are inseparable parts of our life.

In this broader market, the customer's behavior is also very important for producers and distributors; they have to know peoples' needs and match their strategies to customers. In this research, we are going to consider and exploring the customer's behavior to purchasing and selecting digital devices in North Cyprus.

3.3General View of North Cyprus Economy

The Turkish Republic of Northern Cyprus (TRNC) economy has had various ups and downs in recent decades. Independence of Cyprus, obtained from the United Kingdom in 1961. During the period of 1963 and 1974 Cyprus faced on big symptoms a result of history, or the consequences of some other trauma which were

based on political issues. After this period, North Cyprus started to inaugurate its own economic and political system. The economy dominated more by the service sector including tourism, as the main growth industry sector, and education, and less in the manufacturing sectorlikes: construction, agriculture and light. Agriculture is playing a significant role in the life of Cyprus economy; main agricultural products are: potatoes, citrus fruits, grapes and vine products, and other vegetables. Future plan is establishing an industrial free zone in Famagusta.

Economical data recorded from different information resources since 1975, almost one year after Turkish Cyprus started to establish. Between 1977 and 2003, gross national products (GDP) at stable prices of 1977 increased to 37.5 % and attained 10,177.1 million Turkish Lira (TL) equal to 1,284 million dollar (\$). North Cyprus has endured three different Future Years Defense Program (FYDP) from1977. Unfortunately, despite good economical intentions still does not have a positive outcome at the current situation. The government is trying to control and restricting expenditures in the TRNC by absorbing more effective marketing in the tourist sector and attract foreign students in higher education to increase revenue (northcyprusonline).

In April 2003indigenous inhabitants in north and south Cyprus got allow to travel easily between the two parts of the island, also in August 2004, European Union (EU) rules allowed to north Cyprus residents for selling their own produced products in the South part of the island.

In May 2005, the North Cyprus authorities approved the exact regulation of the EU. In this rule, southern product can be sold on the north part of island TRNC. Despite these rules, direct trade between the south side and the north side of the island are very limited.

3.4 Turkish Digital Devices Market in TRNC

In the North Cyprus, digital devices market divided in two different divisions which residents, foreign students and tourists can purchase their needs from them.

In the first place, because of the TRNC economy strongly depends on Turkey, obvious that the Turkish brands are known among the Northern Cypriots. Island people are familiar with Turkish electronic and digital manufacturing companies like VESTEL, ARCELIK, BEKO and other brands. People trust them and these brands have a good market in TRNC. Now one question may come in a mind, and that is why these brands are successful among their strong competitors? These companies are prospering because of two reasons. First of all, Turkish electronic companies in North Cyprus do not have any strong competitors at all, because custom in this place is very complex and each company from outside of the country wants to export its products, have to pay two taxes (one in turkey and one in TRNC) also the percentage of products tax are huge, so Turkish companies with low and one custom tax can get ahead of their rivals. Secondly, Turkish firms easily can support their clients and customers and also they can guarantee their products and support them online or twenty four hour customer service from their branches. On the other hand, North Cyprus and Turkey have the same media and two countries have the same language so, companies with spending small budget of advertising can introduce and advertise their products in two places.

VESTEL is a company of the Zorlu Holding Group. VESTEL is one of the biggest outstanding trademarks of home appliances in Turkey and international electronic device producers. VESTEL owns the largest television manufacturing plant in Europe and third largest in the world with producing capacity more than 15 million televisions annually. Manufacturing place of VESTEL televisions is known as a VESTEL city which located in the city of Manias, close to Izmir in Turkey. About 12,000 employees are working there as a worker and engineer in 550,000 square meters. That city is completely automated and contains the most advanced industrial and technical equipments in the world. The main products of the company are: full HD LCD television, washing machines, refrigerators, air conditioners with anti-bacterial features, DVD players and recorders, satellite receivers with built-in hard drives (PVR) with dual satellite tuner which allows the viewer for recording one channel while his or her watching another channel, and dishwasher machines. VESTEL has five branches in North Cyprus, three of them are located in Lefkosa, one is in Girneh and one is in Famagusta. VESTEL in North Cyprus is managed by an OZOK holding group that established in late of 1979 which is the one big holding group In North Cyprus (vestel.com.tr).

ARCELIK is also one of the famous brands in North Cyprus that the majority of people know that. ARCHELIK, BEKO and many other famous brands of Turkish products are managed by the KOC holding group. KOC group is established in 1938 and Turkey's first automobile, refrigerator, tractor, washing machine, liquefied petroleum gas canister and many other products are manufactured by them. Electronics products of ARCELIK are: computer components, audio system, video system, cellular phones and full HD television. Today these products are very

popular and have created jobs for many men and women across the Northern Cyprus. The company is going to improve customer relationship management system day by day to make its customer more satisfy (koc.com).

ARCELIK has nine branches in North Cyprus in the four main cities: Lefkosa, Famagusta, Girneh, and Iskele. Each branch has expert repairmen and service supporting team, in their place for repairing client's problems immediately (arcelik-cyprus.com).

3.5 Foreign Digital Devices Market in TRNC

In the previous section 3.2 it was noted that, digital devices market in North Cyprus divided into two divisions. The first market is Turkish manufacturing companies which briefly discussed in the last section. Now there is an argument that how island people in the North part can purchase other brands of digital devices? The answer of this question is the second division of digital market in North Cyprus which will be discussed in the following.

Tsunami of digital technology shapes everything in the world. Smart phones, computer games, video-sharing web sites, video conferencing, smart home appliances, and many other new digital products increased people opportunities to learn from others, meet new people, explore other countries cultures and languages and develop their ideas. Especially with new digital communication technology which is going to popular among people becomes cheaper, simpler and more culturally acceptable.

Social and cultural combination of North Cyprus is typically cross-cultural form, and people how are living in North Cyprus, are interesting to follow the latest new

technology news. On the other hand, tourists and foreign students are provided this field that, local residents answer their demands. The majority of foreign people who come in North Cyprus are using global brand products and less knows Turkish brands. This view makes a great opportunity for businesses in the digital space to improve and extend their businesses, carry out new actions for their revenue and create their businesses more meaningful.

To following of this demand, single businesses are launched to import goods and services from other places and countries which are popular or cheaper, base of their customer's demand.

Products of TOSHIBA, SONY, APPLE, SAMSUNG, IBM, DELL, HP, NOKIA, BLACKBERRY and many other companies are more popular in today's North Cyprus digital devices market. In the following chapters the factors which influence of customer purchase among these brands will be discussed.

Assist. Prof. Dr. Anıl Kemal Kaya, in his article on the subject of "BRAND POSITIONING ANALYSIS IN NORTH CYPRUS MARKETPLACE" which presented at International Conference on Communication, Media, Technology and Design on May 2012 in Istanbul, points out that, the most of the advertisement in North Cyprus belongs to products like, computer, mobile phone and television set. The below table comes from his paper which illustrate different products and services place in media advertising of North Cyprus (Kaya, 2012)

Table 2.Products and Services place in media advertising of North Cyprus

Product and Service Category				
	frequency	percent	Valid percent	Cumulative percent
Automobile	37	8.4	8.4	8.4
Home furniture	32	7.3	7.3	15.7
Textile	42	9.5	9.5	25.2
White goods	40	9.1	9.1	34.3
Computer, mobile phone, TV set	45	10.2	10.2	44.5
Construction	29	6.6	6.6	51.1
Daily consumed products	36	8.2	8.2	59.3
Service for entertainment	74	16.8	16.8	76.1
GSM	4	.9	.9	77.0
Tourism	28	6.4	6.4	83.4
Cosmetics and beauty	7	1.6	1.6	85.0
Jewelry	10	2.3	2.3	87.3
Toys	6	1.4	1.4	88.7
Other	50	11.4	11.4	100.0
Total	440	100.0	100.0	

As shown in the above table, most of the shopping products in North Cyprus were Digital devices such as: computer, mobile phone and television set, have given more advertisements in different media than the other 10.2%.

According to this research, digital and technological products market is very dynamical in North Cyprus; also, businesses are competing to each other's to attract more customers.

Chapter 4

THEORETICAL MODELING AND DATA DESCRIPTION

4.1 Survey Design

“A quantitative approach for collecting data is one in which the investigator primarily uses post positive claims for bringing up knowledge, employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data” (Creswell, 2003).

In general, survey questionnaires present a set of questions which responses provide their knowledge about the research subject to researchers. On the surface, it seems simple but there are many difficulties that should avoid in creating a good and useful survey questionnaire for collecting true information. For having a good survey questionnaire it is very important that, questionnaire captures all of the needed information. Before we start to create a survey questionnaire, we developed a set of objectives for our research and listed out that information which we needed. Then, we started to create a questionnaire structure from past studies and researches. The quantitative method as the most important key to gathering information and key data helps us in this study (see Appendix A for the English questionnaire and Appendix B for the Turkish questionnaire). This questionnaire is modified by reviewing relevant studies and most famous questions were in multiple choice formats

(Dennis W. Rook, Stephen J. Hoch 1985; Stanley HUI, Chan Wan Ka, 2005; Kenny Kwong, Charles B. Wang, 2004; C.S. Heung, Raymond Chu, 2000; Weun, Jones, & Betty, 1997; Persia and Gitelson, 1993; Beatty & Ferrel, 1998) to comfort of raw and standard data. And finally, the last format of the questionnaire used from (Youn & Faber, 2000; Han, 1987; Rook & Hoch, 1985; Weun, Jones, & Betty, 1997; Youn & Faber, 2000 (4); Beatty & Ferrel, 1998; Youn, 2000 R.D. Bikash, S.K. Pravat and Sreekumar, 2010) sources (see Appendix A and B).

In designing the questionnaire some factors helped us. These factors divided in two parts in the questionnaire, first part is some general information about respondents which include; their gender, age, monthly income, job situation, educational level, nationality, family size and background, and their occupations. The second part of our study was concerned with the behavior of respondents when purchasing digital devices products of a wide range of types. Factors of the second section (impulse buying Factors) identified as; price, trust and safety, convenience, products services, efficiency. In general 25 questions designed for second section which respondents answered them by importance degree from “Not Important at all = 1” to Very Important = 5”.

4.2 Sample Selection

The sample chosen for this study belongs to North Cyprus. Because of some problems and also shortage time three main cities of the island (Famagusta, Lefkosa, Girne) were selected and examined. Convenience sampling used in this study which this kinds of sampling typically only justified if the researcher wants to study the characteristics of passing people in the street corner. I found that the sample size from sample size famous which will be discussed in the following.

Before calculating the sample size of the study, I found that some important numbers, for determining the sample size.

First of all, we determined the whole population amount of North Cyprus from the local newspaper website (famagusta-gazette.com, 2011). According to that website, in 2011, Turks claim that the total population of Northern Cyprus was 285,000. From other websites in 2012, we considered 300,000 for our calculation.

Then we estimated that confidence level of our calculation 95%. The confidence level is a percentage and expresses how often the true percentage of the whole population (here is North Cyprus population) which select an answer falls within the confidence interval. In the other word, the 95% confidence level means we can be 95% definitive. Most studies and researches consider the 95% confidence level.

After confidence level and population size, we estimated the margin of error or confidence interval 7 for our study. Sampling error or margin of error represents the level of accuracy of the estimates that is acceptable (surveysystem.com).

Finally, from the sampling size estimator formula (see Formula 4.1) we calculated our sample size.

Equation 1. Sample size formula

$$SS = \frac{Z^2 * (p) * (1-p)}{c^2}$$

Where:

Z = Z value (e.g. 95% confidence level, z=1.96)

P = Percentage selecting a choice, expressed as decimal

C = confidence interval

(www.surveysystem.com)

From this formula our sample size was 196, with 95% of confidence level and 7% of confidence interval. The confidence interval (also called margin of error) is the plus-or-minus figure usually reported in newspaper or television opinion poll results. For example, if you use a confidence interval of 4 and 47% percent of your sample picks an answer you can be "sure" that if you had asked the question of the entire relevant population between 43% (47-4) and 51% (47+4) would have picked that answer.

4.3 Data Collection

Data collection is one of the very important parts of any type of research study. The results of random sampling quantitative data collection methods are easy to compare summarize and generalize (people.uwec.edu). Three main broad categories of qualitative research are; observations, interviews and study of documents. These categories are also fundamental methods of cultural anthropology (Bernard, 1988).

4.3.1 The Quantitative Data

From distributing questionnaires in English language and Turkish language (Appendix A and B) in the different zones and cities in North Cyprus we collected the quantitative data. Questionnaires directly gave to respondents and helped them face to face with some business administrative students of the EMU University to filling them correctly during the 2012 year. Respondents selected from different ages, genders and nationalities for reach the correct answer of study. Finally 197 questionnaires filled by respondents which 143 of them were face to face interview and remains were internet base survey which respondents filled them and send me by email and Facebook. During the survey we had some problems, one of the biggest problems was the bias of responses to filling the form, and one other problem was transportation cost from Famagusta to Lefkosa and Girne.

4.4 Methodology

In order to statistical analysing, we used both descriptive analyzing and inferential analysing and to prioritize of factors AHP (Analytic Hierarchy Process) methodology was used.

4.4.1 Descriptive Analysis

After collecting all questionnaires, answers of all questions imported to EXCEL and SPSS. In the descriptive data analysis, some important information such as table of frequency, standard deviation and mean table prepared by that two software and each question was analyzed separately.

4.4.2 Inferential Analysis

Next step was divided the 25 questions (Appendix A and B) in 7 main factors. In the inferential analysis, chi-square test was used for finding the meaningful and significant

relationship between 7 main factors and 10 variables. When the decision criteria were less than 0.05, the H0 assumption was rejected and we accepted their significant relationships. From the cross tabulation table we found that most and least important variables which had relationship with that main factor. We calculated the correlation coefficient level from the SPSS software and correlation is significant at the 0.01 level (2-tailed), if the p-value for test variables is less than 0.01, they are interdependent variables.

Chapter 5

EMPIRICAL RESULTS

5.1 Descriptive Statistics

In general, descriptive statistics are used to disseminate numerical data analyses which have value. With descriptive statistics, large data sets can be used into useful information. A lot of studies in the world are using descriptive statistics for their research and majority of studies found a lot of useful information and important results from their research.

In chapter 4 we described how survey designed, sample size selected and data collected from questionnaires. After questionnaires were filled out by the digital devices customers in the North Cyprus, we analyzed these data by descriptive statistics. Before explaining of the research results, it is necessary to describe the formula which we used and used by the software.

5.1.1 Mean and Standard Deviation

In statistics science, mean defined as is an average of the values which sets. The equation 2 shows how mean calculate from a sample. Mean is the very important part of analyses. After mean, standard deviation introduced as a measure of how answers spread out numbers are. Equation 3 shows the standard deviation calculation (Irwin Miller, John E. Freund, Richard A. Johnson, 1990).

Equation 2. Mean of sample formula

$$\bar{x} = \frac{1}{N} \sum_{i=1}^N x_i$$

Equation 3. Standard deviation of sample formula

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

According to these formulas and the second part of our questionnaire we find the mean and standard deviation of answers. The second part of the questionnaire is directly related to importance factors for digital devices selection in North Cyprus. Table 3 illustrates the max, min, mean score and standard deviation of each question.

Table 3.Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
1	197	1	5	3.91	1.186
2	197	1	5	3.68	1.104
3	197	1	5	3.83	1.087
4	197	1	5	3.93	1.148
5	197	1	5	3.96	1.106
6	197	1	5	3.83	1.125
7	197	1	5	3.75	1.260
8	197	1	5	3.70	1.199
9	197	1	5	3.41	1.211
10	197	1	5	3.61	1.140
11	197	1	5	4.21	1.023
12	197	1	5	3.82	1.108
13	197	1	5	3.60	1.172
14	197	1	5	3.64	1.082
15	197	1	5	3.84	1.085
16	197	1	5	4.17	.988
17	197	1	5	4.19	.955
18	197	1	5	4.01	1.097
19	197	1	5	3.92	1.078
20	197	1	5	4.10	1.077
21	197	1	5	3.98	1.069
22	197	1	5	3.95	1.061
23	197	1	5	3.91	1.073
24	197	1	5	3.78	1.152
25	197	1	5	3.26	1.217
Valid N (list wise)	197				

From this table, which 197 persons answered 35 questions, the mean of some factors for selecting digital devices are higher than other factors. Table 4 shows the sorts of factors from most important factors for selecting digital devices to low important factors based on mean score of each question.

Table 4.Importance selection factors from high important to low important

No	Question	Mean
1	11	4.21
2	17	4.19
3	16	4.17
4	20	4.1
5	18	4.01
6	21	3.98
7	5	3.96
8	22	3.95
9	4	3.93
10	19	3.92
11	1	3.91
12	23	3.91
13	15	3.84
14	3	3.83
15	6	3.83
16	12	3.82
17	24	3.78
18	7	3.75
19	8	3.7
20	2	3.68
21	14	3.64
22	10	3.61
23	13	3.6
24	9	3.41
25	25	3.26

According to table 4, question 11 was more important than other questions (mean score is 4.21) among 197 persons. The question 11 is about warranty of digital devices. On the second place of chart, question 17 is also very important (mean score is 4.19) which refers to the influences of the current technological development. The least important factor for selecting digital products is question number 25 (mean score is 3.26) which is about local products preferences by customers.

5.1.2 Frequency

The first part of our questionnaire was about general information including: gender, age, monthly income level, job status, work experience, education level, nationality,

family size, occupation and family background. We also calculated the answers frequency and percentage of each question. Table 5 shows the frequency and percentage of question one, which was about gender. Column of frequency represents that 105 of 197 people were male and 92 people were female, it means that 53.3% of responders were male and 46.7% were female.

Table 5. Gender frequency and percentage of responders

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid a	105	53.3	53.3	53.3
b	92	46.7	46.7	100.0
Total	197	100.0	100.0	

Table 5 refers to nationality of interviewees. 8 different countries and geographical zones were chosen for answering which include: Turkish Cypriot, Turkish, Iranian, Nigerian, Middle East countries, People from Former USSR(Union of Soviet Socialist Republics), British and European countries.20.3% of interviewees were from North Cyprus, 49.2% of them were from Turkey and 30.5% were from other countries.

Table 6. Nationality frequency and percentage of responders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	40	20.3	20.3	20.3
	b	97	49.2	49.2	69.5
	c	17	8.6	8.6	78.2
	d	20	10.2	10.2	88.3
	e	3	1.5	1.5	89.8
	f	15	7.6	7.6	97.5
	g	2	1.0	1.0	98.5
	h	3	1.5	1.5	100.0
	Total	197	100.0	100.0	

Table 5 and table 6 are sample tables of frequency and percentage of interviewees. The remaining answer tables are in Appendix C. Also, the second part of the questionnaire percentage and frequency tables is illustrated in Appendix C.

5.2 Factor Analysis, Reliability and Regimentation

To evaluate the reliability of the questionnaire, Cronbach's alpha was used by the SPSS software and its value was equal to 0.870 and due to the fact that the amount of Cronbach alpha should be more than 0.7, the reliability of the questionnaire was confirmed. Figure 15 shows this finding from SPSS software.

Cronbach's Alpha	N of Items
.870	25

Figure 15. Cronbach's alpha for confirming the reliability of questionnaire

On the other hand, table 7 shows two tests (KMO and Bartlett's test) that indicate the suitability of our data for structure detection. Bartlett's test defined a method to test for the equality of variances from a number of independent normal samples by testing the hypothesis.

Table 7.KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.831
Bartlett's Test of Sphericity	Approx. Chi-Square
	1377.127
	df
	300
	Sig.
	.000

As we discussed on previous parts, second part of the questionnaire was about importance factors for digital devices selection which had 25 questions (Appendix A and B). We grouped these 25 questions on 7 main factors according to SPSS factor analysis procedure. Table 8 shows the commonalities of each factor. As shown in this table extraction of questions 16, 21 and 24 are less than 0.5 and they have to remove from the model, we removed these questions we did not see any changes in our regimentation, so we found that the amount of extractions so close to 0.5 and we took them in account.

Table 8. Commonalities of questions

Commonalities

	Initial	Extraction
1	1.000	.565
2	1.000	.518
3	1.000	.620
4	1.000	.604
5	1.000	.628
6	1.000	.645
7	1.000	.537
8	1.000	.619
9	1.000	.679
10	1.000	.504
11	1.000	.572
12	1.000	.603
13	1.000	.595
14	1.000	.554
15	1.000	.623
16	1.000	.497
17	1.000	.558
18	1.000	.571
19	1.000	.599
20	1.000	.609
21	1.000	.455
22	1.000	.641
23	1.000	.544
24	1.000	.469
25	1.000	.651

Extraction Method:
Principal Component
Analysis.

Table 9. Variance explained for dimensions

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.7	25.911	25.911	5.7	25.911	25.911	3.672	16.692	16.692
2	1.762	8.01	33.92	1.762	8.01	33.92	1.918	8.72	25.412
3	1.441	6.549	40.469	1.441	6.549	40.469	1.737	7.897	33.309
4	1.184	5.384	45.853	1.184	5.384	45.853	1.601	7.278	40.586
5	1.158	5.265	51.118	1.158	5.265	51.118	1.509	6.857	47.443
6	1.08	4.908	56.025	1.08	4.908	56.025	1.508	6.853	54.297
7	1.037	4.715	60.74	1.037	4.715	60.74	1.418	6.444	60.74
8	0.9	4.09	64.831						
9	0.849	3.857	68.688						
10	0.757	3.442	72.13						
11	0.748	3.398	75.528						
12	0.712	3.237	78.765						
13	0.699	3.179	81.945						
14	0.57	2.593	84.538						
15	0.55	2.499	87.037						
16	0.522	2.375	89.412						
17	0.515	2.341	91.753						
18	0.483	2.196	93.949						
19	0.428	1.947	95.896						
20	0.347	1.578	97.473						
21	0.294	1.338	98.811						
22	0.262	1.189	100						

Extraction Method: Principal Component Analysis.

The questionnaire had 25 questions in second part which answers were designed ordinal. According to arithmetic mean, mean of each factor was obtained which demonstrated in table 10. From this table we can conclude that, new technology is more important factor for selecting digital products than others. Designing of digital products also is important in TRNC and takes the second place in this table. Finally, bias factor is least important for selecting digital devices in our statistics.

Table 10. Importance of main factors from high to low

Main Factors	N	Mean
New technology	197	4.01
Design	197	3.98
Brand	197	3.95
Service	197	3.87
Price	197	3.81
Advertisement	197	3.64
Bias	197	3.47
Valid N (list wise)	197	

5.2.1 The Analytical Hierarchy Process (AHP)

AHP is one of the mathematical methodologies which may use in decision making to break down a problem in to a hierarchy and matrix process and solve that problem by AHP process (Al-Harbi, 2001). In this part, from AHP steps we found the final weight of each factor. As shown in table 11, summations of final weight of all factors have to be one.

Table 11. Final weight of each selection factor from AHP

ON	rotcaF	thgiew laniF
1	New technology	17.63%
2	Design	17.10%
3	Brand	16.58%
4	Service	15.18%
5	Price	14.14%
6	Advertisement	11.17%
7	Bias	8.20%

5.3 Analyses of Factors Correlation

Correlation analysis is one of the most broadly used methods in summarizing research data (Richard Taylor, Edd, Rdc, 1990).

To calculate the relationship between two variables and testing about whether they have statistically relationship among them or not, correlation indexes are used. We calculated the correlation coefficient level from the SPSS software and correlation is significant at the 0.01 level (2-tailed). If the p-value for test variables is less than 0.01, they are interdependent variables. The correlation coefficient ranges are between -1 and 1 and if the correlation coefficient of variables (here is main factors) are close to 1 and -1, they have strong correlation between them and also if the correlation coefficient of two variables are close to zero, their correlations are low (Irwin Miller, John E. Freund, Richard A. Johnson, 1990).

Table 12 demonstrates the correlations of 7 main factors between each other. According to this table, service of digital devices and price has the highest correlation to each other.

Table 12. Correlations of main factors

		Service	Price	Design	New technology	Bias	Advertisement	Brand
Service	Pearson Correlation	1	.673**	.632**	.439**	.455**	.337**	.318**
	Sig. (2-tailed)		0	0	0	0	0	0
	N	197	197	197	197	197	197	197
Price	Pearson Correlation	.673**	1	.587**	.471**	.421**	.369**	.354**
	Sig. (2-tailed)	0		0	0	0	0	0
	N	197	197	197	197	197	197	197
Design	Pearson Correlation	.632**	.587**	1	.506**	.354**	.392**	.423**
	Sig. (2-tailed)	0	0		0	0	0	0
	N	197	197	197	197	197	197	197
New technology	Pearson Correlation	.439**	.471**	.506**	1	.335**	.376**	.349**
	Sig. (2-tailed)	0	0	0		0	0	0
	N	197	197	197	197	197	197	197
Bias	Pearson Correlation	.455**	.421**	.354**	.335**	1	.275**	0.14
	Sig. (2-tailed)	0	0	0	0		0	0.05
	N	197	197	197	197	197	197	197
Advertisement	Pearson Correlation	.337**	.369**	.392**	.376**	.275**	1	.263**
	Sig. (2-tailed)	0	0	0	0	0		0
	N	197	197	197	197	197	197	197
Brand	Pearson Correlation	.318**	.354**	.423**	.349**	0.14	.263**	1
	Sig. (2-tailed)	0	0	0	0	0.05	0	
	N	197	197	197	197	197	197	197

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

On the other hand, customer's bias and digital products brand has the lowest correlation to each other.

5.4 Chi-Square Test

Chi-square test is one of the widely used statistical tests to analyze categorical data.

This test is a correlation test that determines whether variables have a significant relationship between each other or not.

Testing the hypothesis; assume that H_0 is the first assumption and also H_0 refers to lack relationship between the two variables in test. If the H_0 is rejected, so the independent variable effects on the dependent variable and there is a relationship between them and also if two variables have relations between each other, H_0 will accept (Stockburger, 1996). If the decision criteria in Chi-Square Test Table Asymp.sig (sided) are less than 0.05, H_0 is rejected and there is a relationship between two variables.

As shown in table 13 and 14, ten ecological variables in the first part of questionnaire analyzed with 7 main factors which discussed previously. In this illustration, whenever a decision criterion Asymp sig (2-sided) is less than 0.05, it means that there is a significant relationship between two variables. Because Chi-square test table is big, I divided it in two tables (Table 13 and 14). Each table demonstrates relations between seven main factors and five ecological variables.

Table 13. Chi-square test between ecological variables and main factors (1)

	Family back ground	occupation	Family size	nationality	educational level
New technology	Asymp. sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.007	0.442	0.041	0.179	0.404
Design	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.008	0.551	0.015	0.892	0.981
Brand	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.847	0.572	0.028	0.038	0.849
Service	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.809	0.28	0	0.048	0.021
Price	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.091	0.007	0.454	0.006	0.504
Advertisement	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.825	0.048	0.096	0.806	0.171
Bias	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.244	0.277	0.753	0.264	0.302

As shown in the table 13 and from chi-square test general information, new technology factor and family background (question 10 in questionnaire) has meaningful correlation together or price factor and nationality of responses has strong relation with each other in selecting digital products. Table 14also is continued of this table.

Table 14. Chi-square test between ecological variables and main factors (2)

	work experience	job status	monthly income	Age	gender
New technology	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.397	0.731	0.605	0.98	0.027
Design	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.106	0.29	0.545	0.918	0.013
Brand	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.988	0.188	0.218	0.955	0.758
Service	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.699	0.424	0.118	0.703	0.569
Price	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.001	0.411	0.32	0.007	0.161
Advertisement	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.047	0.479	0.449	0.748	0.362
Bias	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)	Asymp sig (2-sided)
	0.549	0.943	0.862	0.483	0.358

5.5 Analyses of Factors

In the next parts we consider some of the factors that influence selecting digital devices from the results which achieved for chi-square tables and other previous tables. It is obvious that, this information coming from distributing the questionnaires among people and the analysis results are related to the small part of the country.

5.5.1 New Technology

This factor has relations with three variables including; family background, family size and gender. In the other word, these variables have affected to select digital devices which those products new released or have new technological features.

5.5.1.1 Scrutiny of Gender Variable

With study of below cross tabulation table, which is the content of their combined, we found that new technology factor is more important for women (b. is female option) than men (a. is male option). Table 15 shows the cross tabulation between female and male. Overall mean for female is 3.99 and for male are 3.70.

Table 15. Gender and new technology cross tabulation

		New technology					Total
		1	2	3	4	5	
Gender a	Count	1	15	27	34	28	105
	% within gender	1.00%	14.30%	25.70%	32.40%	26.70%	100.00%
b	Count	4	7	12	32	37	92
	% within gender	4.30%	7.60%	13.00%	34.80%	40.20%	100.00%
Total	Count	5	22	39	66	65	197
	% within gender	2.50%	11.20%	19.80%	33.50%	33.00%	100.00%

In the chi-square test table (table 16) because of the decision criterion is 0.027 and less than 0.05 assuming H0 is rejected, so new technology factor is significantly related to gender variable.

Table 16. Chi-square test for gender and new technology

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.975	4	0.027
Likelihood Ratio	11.277	4	0.024
N of Valid Cases	197		

5.5.1.2 Scrutiny of Family Size Variable

The following table (17) shows that, people who live alone care more about new technology factor. With the increasing of family size, the importance of new technology factor may be reduced.

Table 17. Family size and new technology cross tabulation

			New technology					Total
			1	2	3	4	5	
family size	a	Count	0	0	3	9	6	18
		% within family size	0.00%	0.00%	16.70%	50.00%	33.30%	100.00%
	b	Count	0	2	6	9	9	26
		% within family size	0.00%	7.70%	23.10%	34.60%	34.60%	100.00%
	c	Count	0	10	11	17	23	61
		% within family size	0.00%	16.40%	18.00%	27.90%	37.70%	100.00%
	d	Count	1	3	14	16	20	54
		% within family size	1.90%	5.60%	25.90%	29.60%	37.00%	100.00%
	e	Count	3	3	2	7	5	20
		% within family size	15.00%	15.00%	10.00%	35.00%	25.00%	100.00%
	f	Count	1	4	3	8	2	18
		% within family size	5.60%	22.20%	16.70%	44.40%	11.10%	100.00%
Total	Count	5	22	39	66	65	197	
	% within family size	2.50%	11.20%	19.80%	33.50%	33.00%	100.00%	

According to the chi-square test table (table 18) because the decision criterion is 0.041 and less than 0.05, assuming H0 is rejected, so new technology factor is significantly related to family size.

Table 18. Chi-square test for family size and new technology

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.244 ^a	20	0.041
Likelihood Ratio	30.766	20	0.058
Linear-by-Linear Association	6.823	1	0.009
N of Valid Cases	197		

5.5.1.3 Analyzing of Family Back Ground Variable

Below table (19) shows that, people who live in a family which do not have any electronic engineer more care to new technology factor.

Table 19. Family back ground and new technology cross tabulation

			New technology					Total
			1	2	3	4	5	
family background	a	Count	2	0	0	3	7	12
		% within family background	16.70%	0.00%	0.00%	25.00%	58.30%	100.00%
	b	Count	0	2	4	8	9	23
		% within family background	0.00%	8.70%	17.40%	34.80%	39.10%	100.00%
	c	Count	2	3	31	47	79	162
		% within family background	1.20%	1.90%	19.10%	29.00%	48.80%	100.00%
Total	Count	4	5	35	58	95	197	
	% within family background	2.00%	2.50%	17.80%	29.40%	48.20%	100.00%	

From the chi-square test table (table 20) because of the decision criterion is 0.007 and less than 0.05, assuming H0 is rejected, so new technology factor is significantly related to family back ground.

Table 20. Chi-square test for family back ground and new technology

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.951 ^a	8	0.007
Likelihood Ratio	14.873	8	0.062
N of Valid Cases	197		

5.5.2 Design

Designing of digital products also has relation with three variables (family back ground, gender and family size) which will be discussed with detail in the following.

5.5.2.1 Gender Variable and Designing Factor

According to the 21 cross tabulation table, designing of digital products (software and hardware) is more important for women rather than men. The mean of importance degree for women is 4.33 and for men are 3.98.

The table 22 illustrates that, because of the decision criterion is 0.013 and less than 0.05, assuming H0 is rejected, so design main factor is significantly related to gender.

Table 21. Gender and design factor cross tabulation

		Design					Total
		1	2	3	4	5	
Gender	a	Count 2	Count 9	Count 16	Count 38	Count 40	Count 105
		% within gender 1.90%	% within gender 8.60%	% within gender 15.20%	% within gender 36.20%	% within gender 38.10%	% within gender 100.00%
Gender	b	Count 1	Count 2	Count 15	Count 19	Count 55	Count 92
		% within gender 1.10%	% within gender 2.20%	% within gender 16.30%	% within gender 20.70%	% within gender 59.80%	% within gender 100.00%
Total		Count 3	Count 11	Count 31	Count 57	Count 95	Count 197
		% within gender 1.50%	% within gender 5.60%	% within gender 15.70%	% within gender 28.90%	% within gender 48.20%	% within gender 100.00%

Table 22. Chi-square test for gender and design

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.719 ^a	4	0.013
Likelihood Ratio	13.166	4	0.01
N of Valid Cases	197		

5.5.2.2 Family Size Variable and Designing Factor

According to the 23 table, it is clear that, people who are living in small family care more to designing of digital products rather than who are living in big size family (option a is 2 person in a family, option b is 3, c is 4, d is 5, e is 6 and f is more than 6 person in family). This table shows family size and designing factor cross tabulation in our study. The table 24 also shows the chi-square test for accepting the relationship between family size and designing factor.

Table 23. Family size and design factor cross tabulation

		Design					Total
		1	2	3	4	5	
Family size	a	Count 1	0	3	2	12	18
		% within family size 5.60%	0.00%	16.70%	11.10%	66.70%	100.00%
	b	Count 1	2	3	10	10	26
		% within family size 3.80%	7.70%	11.50%	38.50%	38.50%	100.00%
	c	Count 0	3	9	20	29	61
		% within family size 0.00%	4.90%	14.80%	32.80%	47.50%	100.00%
d	Count 0	2	6	14	32	54	
	% within family size 0.00%	3.70%	11.10%	25.90%	59.30%	100.00%	
e	Count 1	1	9	6	3	20	
	% within family size 5.00%	5.00%	45.00%	30.00%	15.00%	100.00%	
f	Count 0	3	1	5	9	18	
	% within family size 0.00%	16.70%	5.60%	27.80%	50.00%	100.00%	
Total	Count 3	11	31	57	95	197	
	% within family size 1.50%	5.60%	15.70%	28.90%	48.20%	100.00%	

Table 24. Chi-square test for family size and design

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.206 ^a	20	0.015
Likelihood Ratio	35.088	20	0.02
Linear-by-Linear Association	1.196	1	0.274
N of Valid Cases	197		

5.5.2.3 Family Back Ground Variable and Designing Factor

The cross tabulation table (25) shows that, families who have an electronic engineer in their home, care more in designing of digital products in comparisons whit who do not have any electronic engineer in their home.

Table 25. Family back ground and design factor cross tabulation

		Design					
		1	2	3	4	5	
Family background	a	Count	1	1	3	4	3
		% within family background	8.30%	8.30%	25.00%	33.30%	25.00%
	b	Count	0	5	0	12	6
		% within family background	0.00%	21.70%	0.00%	52.20%	26.10%
	c	Count	6	9	34	42	71
		% within family background	3.70%	5.60%	21.00%	25.90%	43.80%
Total	Count	7	15	37	58	80	
	% within family background	3.60%	7.60%	18.80%	29.40%	40.60%	

Also from table 26 it is concluded that, family back ground variable and design factor have the meaningful correlation with others. This table comes from chi-square test table and H0 rejected because 0.008 is less than 0.05.

Table 26. Chi-square test for family background and design

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.629 ^a	8	0.008
Likelihood Ratio	23.118	8	0.003
N of Valid Cases	197		

5.5.3 Price

This study identified that, the price factor is also associated with several variables (age, work experience, occupation and nationality). This factor does not any relation with gender, family size and family background. In the following sections the overall impact of these variables on the price factor will be discussed.

5.5.3.1 Age Variable and Price Factor

From the table 27, it can conclude that, the price factor is associated with age variable and they have meaningful correlation. Chi-square test used to prove this relation and the H0 assumption was rejected because 0.007 is less than 0.05.

Table 27. Chi-square test for age and price

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.187 ^a	16	0.007
Likelihood Ratio	35.422	16	0.003
Linear-by-Linear Association	3.47	1	0.062
N of Valid Cases	197		

The table 28 shows cross tabulation for different age, according to this table, people who are in age between 38 and 47 care more to price. Younger people are emphasized to price factor in selecting electronic and digital products after middle-aged.

Table 28. Age and price factor cross tabulation

		Price					Total	
		1	2	3	4	5		
AGE	a	Count	8	9	40	17	57	131
		% within age	6.10%	6.90%	30.50%	13.00%	43.50%	100.00%
	b	Count	0	5	5	12	11	33
		% within age	0.00%	15.20%	15.20%	36.40%	33.30%	100.00%
	c	Count	0	1	1	4	13	19
		% within age	0.00%	5.30%	5.30%	21.10%	68.40%	100.00%
	d	Count	0	0	2	2	5	9
		% within age	0.00%	0.00%	22.20%	22.20%	55.60%	100.00%
	e	Count	0	2	0	0	3	5
		% within age	0.00%	40.00%	0.00%	0.00%	60.00%	100.00%
Total	Count	8	17	48	35	89	197	
	% within age	4.10%	8.60%	24.40%	17.80%	45.20%	100.00%	

5.5.3.2 Nationality Variable and Price Factor

Table 29 shows that different nationalities have different perception about importance of digital devices price. People from former USSR (Tajikistan, Azerbaijan, Kazakhstan, Russia, and Turkmenistan) more emphasize to price. People from Europe and the UK are in the second place. Finally, people from Middle East care to price less than other nationalities.

Table 29. Nationality and price factor cross tabulation

		Price					Total
		1	2	3	4	5	
Nationality	Count	4	1	7	8	20	40
	a % within nationality	10.00%	2.50%	17.50%	20.00%	50.00%	100.00%
	Count	4	10	22	13	48	97
	b % within nationality	4.10%	10.30%	22.70%	13.40%	49.50%	100.00%
	Count	0	2	5	6	4	17
	c % within nationality	0.00%	11.80%	29.40%	35.30%	23.50%	100.00%
	Count	0	2	11	2	5	20
	d % within nationality	0.00%	10.00%	55.00%	10.00%	25.00%	100.00%
	e % within nationality	0.00%	66.70%	33.30%	0.00%	0.00%	100.00%
f % within nationality	0.00%	0.00%	0.00%	33.30%	66.70%	100.00%	
Count	0	0	1	0	1	2	
g % within nationality	0.00%	0.00%	50.00%	0.00%	50.00%	100.00%	
Count	0	0	1	1	1	3	
h % within nationality	0.00%	0.00%	33.30%	33.30%	33.30%	100.00%	
Count	8	17	48	35	89	197	
Total	% within nationality	4.10%	8.60%	24.40%	17.80%	45.20%	100.00%

From the table 30, we found that the price factor in selecting digital devices has a direct relation with the nationality variable. H_0 in chi-square test (0.006) is less than 0.05, so H_0 assumption was rejected.

Table 30. Chi-square test for nationality and price

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.080 ^a	28	0.006
Likelihood Ratio	50.21	28	0.006
N of Valid Cases	197		

5.5.3.3 Work Experience Variable and Price Factor

Table 31 illustrates that, people who have work experience more than 10 years, have more attention to digital products prices. People who have less than 5 years' work experience are in the second level for caring to price.

Chi-square test for relation between these two factors illustrated on the table 32

Table 31. Work experience and price factor cross tabulation

		Price					Total	
		1	2	3	4	5		
Work experience	a	Count	5	12	43	36	56	152
		% within work experience	3.30%	7.90%	28.30%	23.70%	36.80%	100.00%
	b	Count	0	5	5	3	8	21
		% within work experience	0.00%	23.80%	23.80%	14.30%	38.10%	100.00%
	c	Count	0	1	2	16	5	24
		% within work experience	0.00%	4.20%	8.30%	66.70%	20.80%	100.00%

Table 32. Chi-square test for work experience and price

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.470 ^a	8	0.001
Likelihood Ratio	25.132	8	0.001
Linear-by-Linear Association	0.353	1	0.553
N of Valid Cases	197		

5.5.3.4 Occupation Variable and Price Factor

Statistically results in occupation factor is very interesting, from table 33 we found that, price factor among business mans and people who are working in a business sectors is more important than others and government employees care less to price factor in their purchases. Chi-square test also rejected H0 assumption in this relation.

Table 33. Occupation and price factor cross tabulation

		Price					Total	
		1	2	3	4	5		
Occupation	a	Count	1	5	21	18	49	94
		% within occupation	1.10%	5.30%	22.30%	19.10%	52.10%	100.00%
	b	Count	3	4	3	2	11	23
		% within occupation	13.00%	17.40%	13.00%	8.70%	47.80%	100.00%
	c	Count	3	2	3	2	9	19
		% within occupation	15.80%	10.50%	15.80%	10.50%	47.40%	100.00%
	d	Count	1	6	21	13	20	61
		% within occupation	1.60%	9.80%	34.40%	21.30%	32.80%	100.00%
Total	Count	8	17	48	35	89	197	
	% within occupation	4.10%	8.60%	24.40%	17.80%	45.20%	100.00%	

5.5.4 Service

Service factor had also direct relationship with occupation, nationality, family size and educational level in our survey. Our questionnaire had 6 questions about importance of services in selecting an electronic and digital device. In the next parts we will analyzed all variables that influence on service.

5.5.4.1 Educational Level

From educational level and cross tabulation table (see appendix D) we found that service of digital products is more important for people who are finished technical school and for people who has low educational level, service factor is not more important.

5.5.4.2 Family Size

Family size and service cross tabulation table (appendix D) shows that, families who have 3 household members care to services more than others. On the other hand, families with 5 members care less to products services in their purchasing.

5.5.4.3 Occupation

People who have different occupation have a dissimilar point of view. According the cross tabulation table (appendix D) between service and occupation, people who are working in business sectors or businessmen have more personal interest to service factor in purchasing of digital products.

5.5.4.4 Nationality

People from the UK and Europe care more to service rather than other nationalities in TRNC and people form Middle East have less attention to the service factor.

5.5.5 Advertisement

Advertising of digital products to attract customers has a direct relationship with work experience and occupation variables in North Cyprus. In the following sections these relations will be discussed.

5.5.5.1 Work Experience

From the cross tabulation table between advertisement and work experience (appendix D) this fact comes that, individuals with high work experience pay more attention to advertisement and people with low work experience or without work experience pay less attention to advertisement.

5.5.5.2 Occupation

Different people from different occupation have dissimilar points of view about digital products advertising. From cross tabulation table between occupation and advertisement (appendix D) we can conclude that, people from private section pay more attention to advertising of digital products and people who are professional at their craft pay less attention to advertisement of these goods.

5.5.6 Brand

Brand factor of digital products as one of 7 main selecting factors also has related to family size and nationality in TRNC. In the below sections relationship of these factors are generally described.

5.5.6.1 Nationality

From the different nationalities, people from the UK more care to digital devices brands and brand among Nigerian people has the lowest position (appendix D)

5.5.6.2 Family Size

According to the cross tabulation table between family size and brand (appendix D) this point comes out that, with the increasing of families' population and members the importance of brand runs low.

5.5.7 Bias

According to the chi-square test, this point comes out that bias factor does not have any relationship with ten variables.

Chapter 6

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Recognizing the factor influencing the purchase of digital electronic devices is an important act, because the recognition of these factors would cause an impressively successful to companies. By categorizing these factors and evaluating the influence of each of these factors on the selected digital devices, would increase the success of the goods and their competitive advantages.

According to the survey, the questionnaire has been divided in two parts; in the first part, initially the analysis has been made out of 25 influential factors which affect selecting the digital devices, and then in the next step these factors has been divided in 7 general categories which considers our new 7 important factors. In the next step we evaluated the influential factors; the most important factor is new technology, this shows that customers pay more attention to the new technology of digital devices more than other factors. The second important factor is the design, which customers emphasize more on factors such as style/look, high resolution, friendly, and updated with extra parting the design category. Customers selected brand in third place, and in the next place, which is the fourth place, service has been chosen. Brand category includes the factors such as 24hours availability of company service, low service charge, imported product is preferable, and warranty offered. Price has been placed in fifth place; so these shows the suppliers that by providing affordable

or cheap price cannot increase their sales, because customers pay more attention to new technology, design, and brand more than the price of their digital devices. Advertisement is the sixth important factor which affects customer's selection decisions. This category includes factors such as advertisement effect, recommendation of relativity, and recommendation of the family. In the seventh and last place biases placed. Biases have the least important effect on the customer's perception on selecting digital device in TRNC. This means that the customer pays less attention to the compatibility and a product being local. The close relationship between these factors shows the complex behavior of the customers.

In the first section of the questionnaire we gather some information about the customer's ideological trait. With the help of Chi-square test we could illustrate the relationships between general information, which consist of 10 variables, and 7 main influential factors in selecting digital devices. Somehow we could find meaningful relationships between factors and variables, for example new technology as a factor has a relationship with variables such as gender, family size, family background. After defining the relationship between these factors and variables we find out that females pay more attention to new technology more than males, on the other hand as the family size increases the importance of new technology would decrease, however in families with no electronic engineering background, there is more demand for new technology. Gender, family size, and family background have a relationship with design; so females who live in smaller family size and they have a family background in electronic engineering tend to pay more attention to the design factor. There is a relationship between nationalities, family size, and brand. British people who have a small family size tend to care more about the brand than bigger

family size. The service has a relationship with variables such as occupation, nationality, family size, and educational level. As lower the educational level of customer is, lower the family size and the work in the private sector, the demand for service would be higher. For the price there is relationship with work experience, occupation, nationality, and age. Customers with ages between 38 to 47 care more about the pricing, additionally between nations, people from the former USSR care more about pricing, however middle eastern nations care less about pricing of digital devices. And also people with more than 10 years' work experience and working in the business sectors care more about the prices. In the advertisement factor as higher the work experience is the higher would be the effects on customers, moreover the effects of advertisements would be more effective for employees who works for governmental sectors. Biases as the least important factors have no impressive relationship with any of ideological variables.

6.2 Recommendation

As a result of this survey, we could suggest you that the supplier of digital devices should more focus their attention on these 7 factors, and respective to the importance of the effects of these factors they should take these factors into consideration. The suppliers should tend to supply their devices as more updated and as new as possible, in addition the design should be as good as possible and also attract females, because their major customers are females who looking for an updated and a suitable design for them. Services should be focused more on marketers, and people with lower educational level. Although they should offer lower prices or some facilities for people more than 37 years old and also who works in private sectors, and for attracting governmental employees they should focus more on

advertisements, because this is how they could attract their new customer and keep them.

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APPENDICES

Appendix A: English Questionnaire

DIGITAL DEVICES SELECTION CRITERIA IN NORTH CYPRUS MARKET

Dear Participant,

This research is about your opinions as an owner or a buyer as well as a trader in selecting digital devices (Receiver, Decoder, TV set, satellite component, smart box etc.). Please read all of the following questions carefully and try to answer the questions on the digital devices selection factors. Regards,

Assoc. Prof Sami Fethi and HatefKiafar

PART A. DEMOGRAPHIC PROFILE

1. Gender:

- a. Male b. Female

2. Age

- a. 18-27 b. 28-37 c. 38-47 d. 48-57 e. 58 and upper

3. Monthly Income Level

- a. \$ 0 – 999 b. \$ 1000 – 1999 c. \$ 2000 – 2999 d. 3000 and over

4. Job status:

- a. Full time b. Part-time c. Unemployed

5. Work Experience

- a. 1-5 years b. 6-10 years c. More than 10 years

6. Education Level

- a. Primary School b. Secondary/High School c. Technical school d. University e. Postgraduate

7. Nationality

- a. Turkish Cypriot b. Turkish c. Iranian d. Nigerian
e. People from Middle East f. People from Former USSR g. British h. European

8. Family Size

- a. 2 b. 3 c. 4 d. 5 e. 6 f. More than 6

9. Occupation

- a. Business b. Government c. Professional d. Private sector

10. Family background

- a. My father is an electronic engineer b. One of my relatives is an electronic engineer c. None

PART B. Digital devices selection factors

This section comprises of 25 questions on digital devices selection factors. Please use the following Likert's scale ranging from 1 (Not Important at all) to 5 (Very Important) for your answers:

Not Important at all

Very Important

1 2 3 4 5

ID	IMPORTANCE FACTORS FOR DIGITAL DEVICES SELECTION	LIKERT'S SCALE				
1.	Recommendations of Friends	1	2	3	4	5
2.	Its current advertising effect	1	2	3	4	5
3.	Recommendations of Relatives	1	2	3	4	5
4.	Its price is affordable	1	2	3	4	5
5.	Its package is cheaper	1	2	3	4	5
6.	Its style/look	1	2	3	4	5
7.	Low Service Charges	1	2	3	4	5
8.	It has a high electricity efficiency	1	2	3	4	5
9.	It provides high resolution	1	2	3	4	5
10.	It is an environment friendly device	1	2	3	4	5
11.	Its warranty offered is satisfactory	1	2	3	4	5
12.	Its last released product is preferable	1	2	3	4	5
13.	Its set is cheaper (All is included such as decoder, TV, satellite etc.)	1	2	3	4	5
14.	Its resale value is reasonable	1	2	3	4	5
15.	24 hours availability of company service	1	2	3	4	5
16.	Its safety futures	1	2	3	4	5
17.	It is an user friendly	1	2	3	4	5
18.	Its spare parts are available	1	2	3	4	5
19.	Its imported product is preferable	1	2	3	4	5
20.	Special offers for subscribers	1	2	3	4	5
21.	It can be updated with extra part	1	2	3	4	5
22.	Its brand status/prestige	1	2	3	4	5
23.	The influences of the current technological development	1	2	3	4	5
24.	Its value for money	1	2	3	4	5
25.	Its local product is preferable	1	2	3	4	5

Source: This questionnaire is modified by conducting Youn& Faber, 2000; Han, 1987; Rook & Hoch, 1985; Weun, Jones, & Betty, 1997; Youn& Faber, 2000 (4); Beatty & Ferrel, 1998; Youn, 2000 R.D. Bikash, S.K. Pravat and Sreekumar (2010).

Appendix B: Turkish Questionnaire

KUZEY KIBRIS PİYASASINDA DİJİTAL CİHAZLAR BÖLÜMÜ KRİTERLERİ

Sayın Katılımcılar,

Bu araştırma dijital cihazların seçiminde; bir mal sahibi, bir satıcı ve de bir tüccar olarak sizin fikirleriniz hakkındadır. Lütfen aşağıdaki tüm soruları dikkatlice okuyunuz ve dijital cihazların seçim faktörleri sorularını cevaplamaya çalışınız. Saygılar,

Yrd. Prof. Sami Fethi ve Hatef Kiafar

BÖLÜM A. NÜFUS İSTATİKLERİ PROFİLİ

1. Cinsiyet:

- a. Erkek b. Kadın

2. Yaş

- b. 18-27 b. 28-37 c. 38-47 d. 48-57 e. 58 ve üzeri

3. Aylık gelir durumu

- a. \$ 0 – 999 b. \$ 1000 – 1999 c. \$ 2000 – 2999 d. 3000 ve üzeri

4. İş Statüsü:

- a. Tam gün mesai b. Yarım gün mesai c. İşsiz

5. İş Tecrübesi

- a. 1-5 yıl b. 6-10 yıl c. 10 yıldan fazla

6. Tahsil Durumu

- a. İlkokul b. Ortaokul/Lise c. Teknik okul d. Üniversite e. Lisans üstü

7. Uyuşu

- a. Kıbrıslı Türk b. TC c. İranlı d. Nijeryalı
e. Orta Doğu'dan kişiler f. Eski S.S.C.B'nden kişiler g. İngiliz h. Avrupalı

8. Aile sayısı

- a. 2 b. 3 c. 4 d. 5 e. 6 f. 6'dan fazla

9. Meslek

- a. Ticari b. Hükümet işi c. Profesyonel d. Özel Sektör

10. Aile Özgeçmişi

- a. Babam elektronik mühendisidir b. Ailemden birisi elektronik mühendisidir c. Hiçbiri

BÖLÜM B. DİJİTAL CİHAZLARIN SEÇİM FAKTÖRLERİ

Bu bölüm, dijital cihazların seçim faktörleri ile ilgili 25 sorudan oluşuyor. Lütfen cevaplarınız için 1'den (Hiç önemli değil) 5'e kadar (çok önemli) aşağıdaki 'Beğendi derecesini' kullanınız:

Hiç Önemli değil

Çok Önemli

1 2 3 4 5

NO	DİJİTAL CİHAZLARIN SEÇİMİNDEKİ ÖNEMLİ FAKTÖRLER	BEĞENDİ DERECESİ				
1.	Fiyatı satın alınabilir olması	1	2	3	4	5
2.	Şimdiki zamanın reklam etkisi olması	1	2	3	4	5
3.	Son çıkan ürünlerin tercih edilir olması	1	2	3	4	5
4.	Şirket servislerinin 24 saat ulaşılabilir olması	1	2	3	4	5
5.	Cihazın yardımcı bir arkadaş olması	1	2	3	4	5
6.	Biçimli/gösterişli olması	1	2	3	4	5
7.	Düşük servis ücretlerinin olması	1	2	3	4	5
8.	Çevresel bir yardım cihazı olması	1	2	3	4	5
9.	İthal ürün tercih edilir olması	1	2	3	4	5
10.	Daha ucuz paketlerin olması	1	2	3	4	5
11.	Garanti sağlamanın memnuniyet verici olması	1	2	3	4	5
12.	Yüksek bir elektrik verimine sahip olması	1	2	3	4	5
13.	Arkadaş tavsiyelerinin olması	1	2	3	4	5
14.	Aile tavsiyelerinin olması	1	2	3	4	5
15.	Setin daha ucuz olması (Şifre çözücü,Tv,Uydu gibi hepsi bir arada)	1	2	3	4	5
16.	Güvenli geleceği olması	1	2	3	4	5
17.	Şimdiki zaman teknolojisi gelişiminin etkisi olması	1	2	3	4	5
18.	Yedek parçaların mevcut olması	1	2	3	4	5
19.	Geri iadenin uygun olması	1	2	3	4	5
20.	Yüksek çözünürlük sağlamış olması	1	2	3	4	5
21.	Ekstra bir parçayla son teknolojiye uygun olabilmesi	1	2	3	4	5
22.	Markası/prestiji olması	1	2	3	4	5
23.	Aboneler için özel indirimlerin olması	1	2	3	4	5
24.	Para değerinin olması	1	2	3	4	5
25.	Şehir içi ürünlerin tercih edilir olması	1	2	3	4	5

Kaynak: Bu anket aşağıda belirtilen kişilerin yönetimi tarafından belirli yıllarda değiştirilmiştir:

1. Youn & Faber, 2000
2. Han, 1987
3. Rook & Hoch, 1985
4. Weun, Jones, & Betty, 1997
5. Youn & Faber, 2000 (4)
6. Beatty & Ferrel, 1998
7. Youn, 2000
8. R.D. Bikash, S.K. Pravat and Sreekumar 2010.

HATEF KIAFAR (2012)

Appendix C: Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	105	53.3	53.3	53.3
	b	92	46.7	46.7	100.0
	Total	197	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	131	66.5	66.5	66.5
	b	33	16.8	16.8	83.2
	c	19	9.6	9.6	92.9
	d	9	4.6	4.6	97.5
	e	5	2.5	2.5	100.0
	Total	197	100.0	100.0	

Monthly income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	120	60.9	60.9	60.9
	b	50	25.4	25.4	86.3
	c	18	9.1	9.1	95.4
	d	9	4.6	4.6	100.0
	Total	197	100.0	100.0	

Job status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	37	18.8	18.8	18.8
	b	46	23.4	23.4	42.1
	c	114	57.9	57.9	100.0
	Total	197	100.0	100.0	

Work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	152	77.2	77.2	77.2
	b	21	10.7	10.7	87.8
	c	24	12.2	12.2	100.0
	Total	197	100.0	100.0	

Educational level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	5	2.5	2.5	2.5
	b	25	12.7	12.7	15.2
	c	10	5.1	5.1	20.3
	d	129	65.5	65.5	85.8
	e	28	14.2	14.2	100.0
	Total	197	100.0	100.0	

Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	40	20.3	20.3	20.3
	b	97	49.2	49.2	69.5
	c	17	8.6	8.6	78.2
	d	20	10.2	10.2	88.3
	e	3	1.5	1.5	89.8
	f	15	7.6	7.6	97.5
	g	2	1.0	1.0	98.5
	h	3	1.5	1.5	100.0
	Total	197	100.0	100.0	

Family size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	18	9.1	9.1	9.1
	b	26	13.2	13.2	22.3
	c	61	31.0	31.0	53.3
	d	54	27.4	27.4	80.7
	e	20	10.2	10.2	90.9
	f	18	9.1	9.1	100.0
	Total	197	100.0	100.0	

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	94	47.7	47.7	47.7
	b	23	11.7	11.7	59.4
	c	19	9.6	9.6	69.0
	d	61	31.0	31.0	100.0
	Total	197	100.0	100.0	

Family background

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a	12	6.1	6.1	6.1
	b	23	11.7	11.7	17.8
	c	162	82.2	82.2	100.0
	Total	197	100.0	100.0	

1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	4.1	4.1	4.1
	2	17	8.6	8.6	12.7
	3	48	24.4	24.4	37.1
	4	35	17.8	17.8	54.8
	5	89	45.2	45.2	100.0
	Total	197	100.0	100.0	

2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	3.0	3.0	3.0
	2	23	11.7	11.7	14.7
	3	56	28.4	28.4	43.1
	4	55	27.9	27.9	71.1
	5	57	28.9	28.9	100.0
	Total	197	100.0	100.0	

3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	2.5	2.5	2.5
	2	22	11.2	11.2	13.7
	3	39	19.8	19.8	33.5
	4	66	33.5	33.5	67.0
	5	65	33.0	33.0	100.0
	Total	197	100.0	100.0	

4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	4.6	4.6	4.6
	2	14	7.1	7.1	11.7
	3	40	20.3	20.3	32.0
	4	52	26.4	26.4	58.4
	5	82	41.6	41.6	100.0
	Total	197	100.0	100.0	

5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	3.6	3.6	3.6
	2	15	7.6	7.6	11.2
	3	37	18.8	18.8	29.9
	4	58	29.4	29.4	59.4
	5	80	40.6	40.6	100.0
	Total	197	100.0	100.0	

6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	9	4.6	4.6	4.6
	2	14	7.1	7.1	11.7
	3	48	24.4	24.4	36.0
	4	57	28.9	28.9	65.0
	5	69	35.0	35.0	100.0
	Total	197	100.0	100.0	

7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	13	6.6	6.6	6.6
	2	24	12.2	12.2	18.8
	3	37	18.8	18.8	37.6
	4	49	24.9	24.9	62.4
	5	74	37.6	37.6	100.0
	Total	197	100.0	100.0	

8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	6.1	6.1	6.1
	2	19	9.6	9.6	15.7
	3	51	25.9	25.9	41.6
	4	50	25.4	25.4	67.0
	5	65	33.0	33.0	100.0
	Total	197	100.0	100.0	

9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	19	9.6	9.6	9.6
	2	20	10.2	10.2	19.8
	3	63	32.0	32.0	51.8
	4	52	26.4	26.4	78.2
	5	43	21.8	21.8	100.0
	Total	197	100.0	100.0	

10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	5.6	5.6	5.6
	2	17	8.6	8.6	14.2
	3	64	32.5	32.5	46.7
	4	51	25.9	25.9	72.6
	5	54	27.4	27.4	100.0
	Total	197	100.0	100.0	

11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	2.0	2.0	2.0
	2	11	5.6	5.6	7.6
	3	29	14.7	14.7	22.3
	4	48	24.4	24.4	46.7
	5	105	53.3	53.3	100.0
	Total	197	100.0	100.0	

12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	2.5	2.5	2.5
	2	21	10.7	10.7	13.2
	3	48	24.4	24.4	37.6
	4	53	26.9	26.9	64.5
	5	70	35.5	35.5	100.0
	Total	197	100.0	100.0	

13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	5.6	5.6	5.6
	2	25	12.7	12.7	18.3
	3	48	24.4	24.4	42.6
	4	60	30.5	30.5	73.1
	5	53	26.9	26.9	100.0
	Total	197	100.0	100.0	

14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	10	5.1	5.1	5.1
	2	16	8.1	8.1	13.2
	3	55	27.9	27.9	41.1
	4	70	35.5	35.5	76.6
	5	46	23.4	23.4	100.0
	Total	197	100.0	100.0	

15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	2.5	2.5	2.5
	2	18	9.1	9.1	11.7
	3	50	25.4	25.4	37.1
	4	55	27.9	27.9	65.0
	5	69	35.0	35.0	100.0
	Total	197	100.0	100.0	

16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	1.5	1.5	1.5
	2	11	5.6	5.6	7.1
	3	31	15.7	15.7	22.8
	4	57	28.9	28.9	51.8
	5	95	48.2	48.2	100.0
	Total	197	100.0	100.0	

17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	2.0	2.0	2.0
	2	5	2.5	2.5	4.6
	3	35	17.8	17.8	22.3
	4	58	29.4	29.4	51.8
	5	95	48.2	48.2	100.0
	Total	197	100.0	100.0	

18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	1.5	1.5	1.5
	2	23	11.7	11.7	13.2
	3	30	15.2	15.2	28.4
	4	54	27.4	27.4	55.8
	5	87	44.2	44.2	100.0
	Total	197	100.0	100.0	

19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	1.5	1.5	1.5
	2	18	9.1	9.1	10.7
	3	50	25.4	25.4	36.0
	4	46	23.4	23.4	59.4
	5	80	40.6	40.6	100.0
	Total	197	100.0	100.0	

20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	3.0	3.0	3.0
	2	13	6.6	6.6	9.6
	3	30	15.2	15.2	24.9
	4	55	27.9	27.9	52.8
	5	93	47.2	47.2	100.0
	Total	197	100.0	100.0	

21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	3.6	3.6	3.6
	2	10	5.1	5.1	8.6
	3	42	21.3	21.3	29.9
	4	59	29.9	29.9	59.9
	5	79	40.1	40.1	100.0
	Total	197	100.0	100.0	

22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	1.5	1.5	1.5
	2	18	9.1	9.1	10.7
	3	43	21.8	21.8	32.5
	4	54	27.4	27.4	59.9
	5	79	40.1	40.1	100.0
	Total	197	100.0	100.0	

23

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	2.0	2.0	2.0
	2	19	9.6	9.6	11.7
	3	41	20.8	20.8	32.5
	4	59	29.9	29.9	62.4
	5	74	37.6	37.6	100.0
	Total	197	100.0	100.0	

24

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	6.1	6.1	6.1
	2	11	5.6	5.6	11.7
	3	52	26.4	26.4	38.1
	4	56	28.4	28.4	66.5
	5	66	33.5	33.5	100.0
	Total	197	100.0	100.0	

25

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	22	11.2	11.2	11.2
	2	25	12.7	12.7	23.9
	3	64	32.5	32.5	56.3
	4	51	25.9	25.9	82.2
	5	35	17.8	17.8	100.0
	Total	197	100.0	100.0	

Appendix D:Chi Square Tables

educational level * Service Cross tabulation

		Service					Total	
		1	2	3	4	5		
Educational level	a	Count	0	1	1	0	3	5
		% within educational level	0.00%	20.00%	20.00%	0.00%	60.00%	100.00%
	b	Count	0	0	3	7	15	25
		% within educational level	0.00%	0.00%	12.00%	28.00%	60.00%	100.00%
	c	Count	0	0	4	3	3	10
	% within educational level	0.00%	0.00%	40.00%	30.00%	30.00%	100.00%	
	d	Count	3	9	20	23	74	129
	% within educational level	2.30%	7.00%	15.50%	17.80%	57.40%	100.00%	
	e	Count	1	1	1	15	10	28
	% within educational level	3.60%	3.60%	3.60%	53.60%	35.70%	100.00%	
Total		Count	4	11	29	48	105	197
	% within educational level	2.00%	5.60%	14.70%	24.40%	53.30%	100.00%	

Family size * Service Cross tabulation

		Service					Total
		1	2	3	4	5	
Family size	a	Count 0	1	3	5	9	18
		% within family size 0.00%	5.60%	16.70%	27.80%	50.00%	100.00%
	b	Count 0	2	2	10	12	26
		% within family size 0.00%	7.70%	7.70%	38.50%	46.20%	100.00%
	c	Count 0	3	7	7	44	61
		% within family size 0.00%	4.90%	11.50%	11.50%	72.10%	100.00%
d	Count 1	2	11	15	25	54	
	% within family size 1.90%	3.70%	20.40%	27.80%	46.30%	100.00%	
e	Count 3	0	2	10	5	20	
	% within family size 15.00%	0.00%	10.00%	50.00%	25.00%	100.00%	
f	Count 0	3	4	1	10	18	
	% within family size 0.00%	16.70%	22.20%	5.60%	55.60%	100.00%	
Total	Count 4	11	29	48	105	197	
	% within family size 2.00%	5.60%	14.70%	24.40%	53.30%	100.00%	

Occupation * Service Cross tabulation

		Service					Total
		1	2	3	4	5	
Occupation	Count	1	6	10	19	58	94
	a % within occupation	1.10%	6.40%	10.60%	20.20%	61.70%	100.00%
	Count	2	1	3	5	12	23
	b % within occupation	8.70%	4.30%	13.00%	21.70%	52.20%	100.00%
	Count	1	0	3	10	5	19
	c % within occupation	5.30%	0.00%	15.80%	52.60%	26.30%	100.00%
	Count	0	4	13	14	30	61
	d % within occupation	0.00%	6.60%	21.30%	23.00%	49.20%	100.00%
Total	Count	4	11	29	48	105	197
	% within occupation	2.00%	5.60%	14.70%	24.40%	53.30%	100.00%

Nationality * Service Cross tabulation

		Service					Total	
		1	2	3	4	5		
Nationality	a	Count	3	2	11	9	15	40
		% within nationality	7.50%	5.00%	27.50%	22.50%	37.50%	100.00%
	b	Count	3	4	17	29	44	97
		% within nationality	3.10%	4.10%	17.50%	29.90%	45.40%	100.00%
	c	Count	0	4	2	6	5	17
		% within nationality	0.00%	23.50%	11.80%	35.30%	29.40%	100.00%
	d	Count	2	0	3	7	8	20
		% within nationality	10.00%	0.00%	15.00%	35.00%	40.00%	100.00%
e	Count	1	1	0	0	1	3	
	% within nationality	33.30%	33.30%	0.00%	0.00%	33.30%	100.00%	
f	Count	0	3	6	0	6	15	
	% within nationality	0.00%	20.00%	40.00%	0.00%	40.00%	100.00%	
g	Count	0	0	0	1	1	2	
	% within nationality	0.00%	0.00%	0.00%	50.00%	50.00%	100.00%	
h	Count	0	0	1	0	2	3	
	% within nationality	0.00%	0.00%	33.30%	0.00%	66.70%	100.00%	
Total	Count	9	14	40	52	82	197	
	% within nationality	4.60%	7.10%	20.30%	26.40%	41.60%	100.00%	

Work experience * Advertisement Cross tabulation

		Advertisement					Total
		1	2	3	4	5	
Work experience	Count	8	29	40	36	39	152
	a % within work experience	5.30%	19.10%	26.30%	23.70%	25.70%	100.00%
	Count	0	2	4	6	9	21
	b % within work experience	0.00%	9.50%	19.00%	28.60%	42.90%	100.00%
	Count	0	0	4	7	13	24
	c % within work experience	0.00%	0.00%	16.70%	29.20%	54.20%	100.00%
Total	Count	8	31	48	49	61	197
	% within work experience	4.10%	15.70%	24.40%	24.90%	31.00%	100.00%

		Advertisement					Total
		1	2	3	4	5	
Occupation	Count	6	14	22	31	21	94
	a % within occupation	6.40%	14.90%	23.40%	33.00%	22.30%	100.00%
	Count	0	3	5	7	8	23
	b % within occupation	0.00%	13.00%	21.70%	30.40%	34.80%	100.00%
	Count	4	0	2	9	4	19
	c % within occupation	21.10%	0.00%	10.50%	47.40%	21.10%	100.00%
	Count	1	6	18	16	20	61
	d % within occupation	1.60%	9.80%	29.50%	26.20%	32.80%	100.00%
Total	Count	11	23	47	63	53	197
	% within occupation	5.60%	11.70%	23.90%	32.00%	26.90%	100.00%

Nationality * Bias Cross tabulation

		Bias					Total	
		1	2	3	4	5		
Nationality	a	Count	0	7	8	7	18	40
		% within nationality	0.00%	17.50%	20.00%	17.50%	45.00%	100.00%
	b	Count	3	6	15	31	42	97
		% within nationality	3.10%	6.20%	15.50%	32.00%	43.30%	100.00%
	c	Count	0	3	3	5	6	17
		% within nationality	0.00%	17.60%	17.60%	29.40%	35.30%	100.00%
	d	Count	0	1	11	4	4	20
		% within nationality	0.00%	5.00%	55.00%	20.00%	20.00%	100.00%
	e	Count	0	0	0	3	0	3
	% within nationality	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	
f	Count	0	0	6	2	7	15	
	% within nationality	0.00%	0.00%	40.00%	13.30%	46.70%	100.00%	
g	Count	0	0	0	1	1	2	
	% within nationality	0.00%	0.00%	0.00%	50.00%	50.00%	100.00%	
h	Count	0	1	0	1	1	3	
	% within nationality	0.00%	33.30%	0.00%	33.30%	33.30%	100.00%	
Total	Count	3	18	43	54	79	197	
	% within nationality	1.50%	9.10%	21.80%	27.40%	40.10%	100.00%	

Family size * Bias Cross tabulation

		Bias					Total
		1	2	3	4	5	
Family size	a	Count 0	2	1	3	12	18
		% within family size 0.00%	11.10%	5.60%	16.70%	66.70%	100.00%
	b	Count 0	4	5	4	13	26
		% within family size 0.00%	15.40%	19.20%	15.40%	50.00%	100.00%
	c	Count 1	4	12	20	24	61
		% within family size 1.60%	6.60%	19.70%	32.80%	39.30%	100.00%
d	Count 0	4	11	16	23	54	
	% within family size 0.00%	7.40%	20.40%	29.60%	42.60%	100.00%	
e	Count 2	3	8	6	1	20	
	% within family size 10.00%	15.00%	40.00%	30.00%	5.00%	100.00%	
f	Count 0	1	6	5	6	18	
	% within family size 0.00%	5.60%	33.30%	27.80%	33.30%	100.00%	
Total	Count 3	18	43	54	79	197	
	% within family size 1.50%	9.10%	21.80%	27.40%	40.10%	100.00%	