

**T.C.  
ISTANBUL AYDIN UNIVERSITY  
INSTITUTE OF SOCIAL SCIENCES**



**MOBILE SHOPPING ADOPTION BY FOUNDATION UNIVERSITY  
STUDENTS IN TURKEY: AN APPLICATION OF THE TECHNOLOGY  
ACCEPTANCE MODEL (TAM)**

**THESIS**

**Mohamad Alla NASSIF**

**Department of Business  
Business Administration Program**

**Thesis Advisor: Assist. Prof. Dr. Farid HUSEYNOV**

**January, .2019**

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T.C.  
İSTANBUL AYDIN ÜNİVERSİTESİ  
SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜ



YÜKSEK LİSANS TEZ ONAY FORMU

Enstitümüz İşletme Anabilim Dalı İşletme Yönetimi Tezli Yüksek Lisans Programı Y1512.130002 numaralı öğrencisi MOHAMAD ALLA NASSIF'ın "MOBILE SHOPPING ADOPTION BY FOUNDATION UNIVERSITY STUDENTS IN TURKEY: AN APPLICATION OF TECHNOLOGY ACCEPTANCE MODEL (TAM)" adlı tez çalışması Enstitümüz Yönetim Kurulunun 26.12.2018 tarih ve 2018/32 sayılı kararıyla oluşturulan jüri tarafından oybirliği/oyçokluğu ile Tezli Yüksek Lisans tezi 09.01.2019 tarihinde kabul edilmiştir.

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## **YEMİN METNİ**

Yüksek Lisans Tezi olarak sunduğum “Mobile Shopping Adoption By Foundation University Students İn Turkey: An Application Of The Technology Acceptance Model (Tam)” adlı çalışmanın, proje safhasından sonuçlanmasına kadarki bütün süreçlerde bilimsel ahlak ve geleneklere aykırı düşecek bir yardıma başvurulmaksızın yazıldığını ve yararlandığım eserlerin Bibliyografya’da gösterilenlerden oluştuğunu, bunlara atıf yapılarak yararlanılmış olduğunu belirtir ve onurumla beyan ederim. (...../...../2019)

**Mohamad Alla NASSİF**

*To My Family, Thesis Supervisor, and Friends...*

## **FOREWORD**

First of all, I want to thank Almighty God to give the chance and energy to finish my MBA program especially my thesis investigations. I would think my hero father (Mohamad Ayman NASSIF) that he is always supporting me with his golden advice and ideas since my childhood till now, My brothers and my lovely mother and sisters that they honestly encouraged me in this period of my education life. Now, time to thank the honorable person that who always supported, encouraged, helped, and directed me in the right direction to write my thesis and doing my researches, my thesis supervisor Assist. Prof. Dr. Farid Huseynov. Finally, time to thanks from everyone that they have a role as a response that they filled my questionaries, and my dear friends for their cooperation as well.

**January. 2019**

**Mohamad Alla NASSIF**

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## **ABBREVIATIONS**

<b>AU</b>	: Attitude Toward Using
<b>B</b>	: Behavioral Intention of Using Online Channels
<b>B2B</b>	: Business to Business
<b>B2C</b>	: Business to Consumer.
<b>C2B</b>	: Consumer to Business
<b>C2C</b>	: Consumer to Consumer.
<b>CBUQ</b>	: Component-Based Usability Questionnaire
<b>CFA</b>	: Confirmatory Factor Analysis
<b>EDI</b>	: Electronic Data Interchange
<b>PEOU</b>	: Perceived Ease of Use
<b>PU</b>	: Perceived Usefulness
<b>R</b>	: Risk
<b>SPSS</b>	: Statistical Package for the Social Sciences
<b>TAM</b>	: Technology Acceptance Model.

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**MOBILE SHOPPING ADOPTION BY FOUNDATION UNIVERSITY  
STUDENTS IN TURKEY: AN APPLICATION OF THE TECHNOLOGY  
ACCEPTANCE MODEL (TAM)**

**ABSTRACT**

Mobile Shopping as Online channels is the most commonly used way of informing the customers about brands and products of a company. Facebook, Instagram, and a lot of smartphone programs are the most traditional ways for creating an image of brands that also help in generating sales revenue. In current times, with technological advancements, new technology mediums have emerged such as the Internet, social media and online marketing. There are various factors linked with the online Mobile shopping technology such as interactivity of the smart telephone which supporting programs and social mediums, which let the brands and traditional physical businesses attend to adapt to the new way of promoting and target their costumers through focusing on selling their products through the mobile online shopping trust level built by online mobile shopping , entertainment of online mobile shopping , offers of online mobile shopping and accessibility of online online mobile shopping. All these factors formed the basis of this research where the impact of these factors was evaluated on the (buying behavior) of a student in foundation Universities in turkey adapted to the mobile shopping style. In order to do so, data was collected from the respondents of age group 21 – 45 yrs from five foundation universities in turkey and to test the relationship among independent and dependent variables, confirmatory factor analysis (CFA) used exploratory factor analysis, confirmatory factor analysis and item analysis (item-total correlation and Cronbach Alpha) were performed within the scope of reliability and validity studies of the scales. AMOS 22 were used for confirmatory factor analysis and path analysis and SPSS 21 for substance analysis, comparison, and relationships tests.

The study used a quantitative research method and data was collected on a questionnaire which was formulated as a result of a comprehensive literature review on the subject matter.

This study there are significant relationship between risk of mobile shopping and attitude toward using of using mobile shopping (independent variables) This means that when perceived risk of using mobile shopping increases, mobile shopping usage intention decreases. Whereas a positive relationship is among perceived ease of use, perceived Usefulness, Attitude toward using and the behavioral intention of using mobile shopping.

**Key words:** *Mobile shopping, Perceived ease of use, Perceived Usefulness, Risk, Attitude toward using and, the Behavioral intention of using mobile shopping.*

# TÜRKİYE’DE DEVLET ÜNİVERSİTESİ ÖĞRENCİLERİNDE MOBİL ALIŞVERİŞİ KABUL ETMESİ: TEKNOLOJİ KABUL MODELİ UYGULAMASI (TAM)

## ÖZET

Çevrimiçi kanal olarak Mobil Alışveriş, müşterileri bir şirketin markaları ve ürünleri hakkında bilgilendirmenin en yaygın kullanılan yoludur. Facebook, Instagram ve akıllı telefon programlarının birçoğu, satış geliri elde etmede yardımcı olan markaların imajını oluşturmanın en geleneksel yoludur. Günümüzde teknolojik gelişmelerle birlikte Internet, sosyal medya ve online pazarlama gibi yeni teknoloji ortamları ortaya çıkmıştır. Akıllı telefonun, programları ve sosyal medya araçlarını destekleyen etkileşimli olması gibi, çevrimiçi Mobil alışveriş teknolojisi ile bağlantılı çeşitli faktörler vardır; bu, markaların ve traditinal fiziksel işletmelerin satışa odaklanarak müşterilerini tanıtmının ve hedef almanın yeni yolunu benimsemeye izin verir. Online mobil alışveriş, online mobil alışveriş eğlence, online mobil shooping ve online çevrimiçi mobil alışveriş erişilebilirlik tarafından inşa edilen mobil online alışveriş güven düzeyini thier ürünleri. Tüm bu faktörler, araştırmanın temelini oluşturmuş ve bu faktörlerin etkisinin, türkiye’de faoundation Üniversiteleri’nde mobil alış-veriş tarzına kabul edilen öğrencinin (satın alma davranışı) üzerindeki etkisinin değerlendirilmesi amaçlanmıştır. Türkiye’deki beş vakıf üniversitesinden 21- 45 yaş arası, bağımsız ve bağımlı değişkenler arasındaki ilişkiyi test etmek, doğrulayıcı faktör analizi (CFA) kullanmış, açıklayıcı faktör analizi, doğrulayıcı faktör analizi ve madde analizi (madde toplam korelasyonu ve Cronbach Alpha) Ölçeklerin geçerlik ve geçerlilik çalışmaları kapsamında. Doğrulayıcı faktör analizi ve yol analizi için AMOS 22 ve madde analizi, karşılaştırma ve ilişki testleri için SPSS 21 kullanılmıştır.

Araştırmada nicel araştırma yöntemi kullanılmış ve konuyla ilgili kapsamlı bir literatür taraması sonucunda formüle edilmiş olan ankette veriler toplanmıştır.

Bu çalışma, mobil alışveriş riski ile mobil alışveriş kullanımının kullanılmasına yönelik tutum arasında önemli bir ilişki olduğunu ortaya koymaktadır (bağımsız değişkenler). Bu durum, mobil alışveriş kullanımının algılanan riski arttığında mobil alışveriş kullanım amacının azaldığı anlamına gelmektedir. Olumlu bir ilişki ise algılanan kolaylık arasındadır. Kullanım, algılanan Yararlılık, Kullanmaya yönelik tutum ve mobil alışveriş kullanımının davranışsal niyeti.

**Anahtar Kelimeler:** : *Mobil alışveriş, Algılanan kullanım kolaylığı, Algılanan Yararlılık, Risk, Kullanmaya yönelik tutum ve Mobil alışverişin davranışsal niyetleri.*

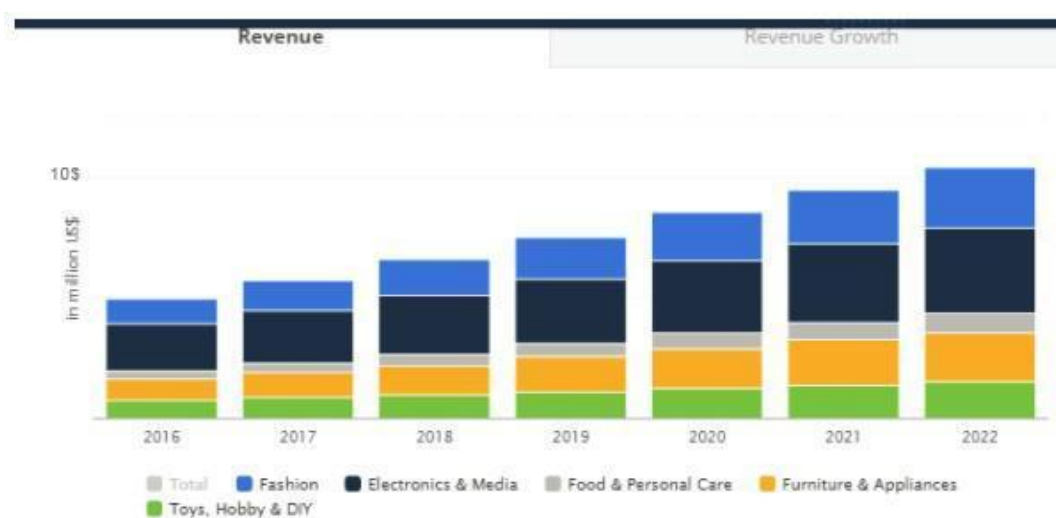
## 1. INTRODUCTION

### 1.1 Problem Statement

Turkey's Internet penetration rate is about 51%, according to figures released by the Turkish Statistical Institute in December 2016, a much lower rate than most countries with similar rates of income and technological progress. According to the same statistics, four out of every ten Internet users in Turkey often use the smartphone to access the Internet. While the results of a survey conducted by the Turkish Statistical Institute itself in March 2017, 24.8% of all users of the Internet are buying goods and services online. Those who bought online are aged between 16 and 74 years old.

Revenue in the Turkish "mobile Shopping" market place to be as 6,605 milyon USD in 2018, were the annual revenue expected to appear with CAGR 2018 - 2022 for 12% result in a market volume of 10,400 milyon USD in year 2022.

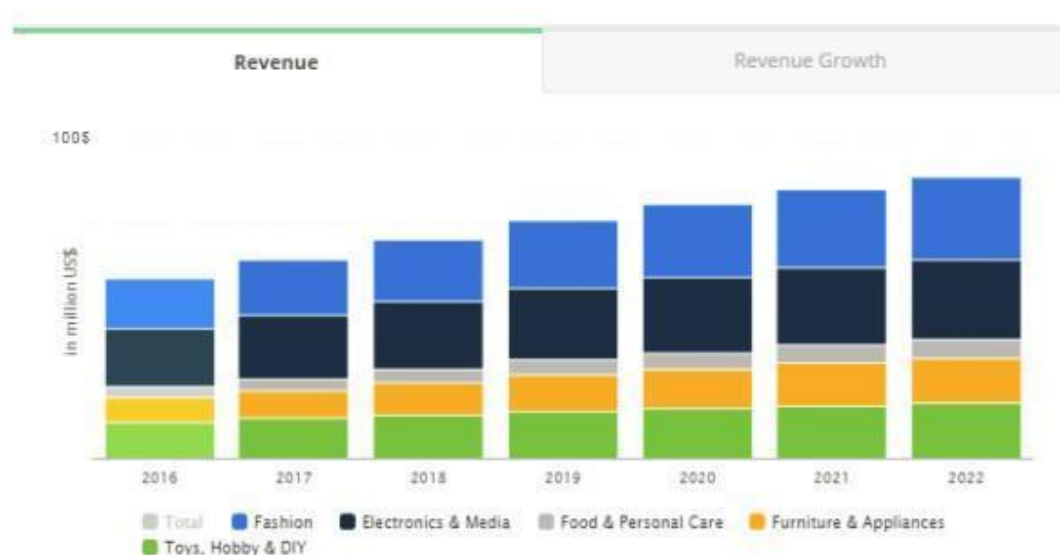
Most largest segment in the electronics and media get a market volume of 2,428 milyon USD in 2018, The average revenue per user currently achieve amount of 196.40 USD.



**Figure 1.1:** Average revenue per user (ARPU)

But compared to other countries, these rates and figures are very low. The researcher chose to compare Turkey with Germany to show the differences and gaps between them in this regard.

The monthly active Internet users shares in estimated to be 82.61 % form over the whole population. and this increase planed to be raise over 3 % from 79.53% in 2015. in real numbers this would approximately means 65 million of users by 2021 and growth in number ro 2,1 millions users. the presented data was collected in May 2016 were the collection account all users that use any kind of Internet device. Depend on statistics 42.80 % of Germans surfing Internet via a mobile phone and smartspnone in 2016. Thus in the same year found out that 78% of the German population used the Internet on thier Daily life.



**Figure 1.2:** The average revenue per user (ARPU)

In 2018 the revenue from using mobile shopping reach to 69,775 million USD, Were this revenue expected to reach 89,684 million USD in the time if 2018-2022 with a growth of 6.5% in the Marketplace. in addition of the largest segment were the electronics and media getting market volume of 21,356 million USD in 2018, also the average revenue per user currently get amount of 1,356 USD.

Faced with this large gap in numbers and ratios between the two countries, the researcher decided to study the factors that stand in the way of Turkish users in front of more trust in mobile shopping.

The researcher identified several factors that will focus his study on them:

- Perceived Ease of use
- Perceived Usefulness
- Perceived Risk

## **1.2 Importance of the Research**

This study aims to investigate the behavior of students studying in Foundations universities in Istanbul. The researcher tries to understand the factors that drive these students to use or not to use mobile shopping in their purchasing operations.

The researcher will try to provide logical reasons to explain the behavior of students purchasing, which will be a good reference for companies that offer online sales, and through this study, these companies will review their financial and sales policies to suit the whims of students, which will increase the volume of sales to companies through the Internet, It will also increase student use of mobile shopping in their shopping.

Depand on this study the new research model that found based on TAM which will discuss below contain the perceived ease of use, Usefulness and behavioral intention toward use the outside factors attitued to use actual system, also because the TAM model gerented from the positive quantitative research as (Davis, 1989) said that generally quantitative methodology will be adopted in the research procets that apply TAM model (Wu, 2009).

In reality Researhers by adopting TAM model to a choosing segment the researches objecting to have a full screenshot in order to monitore to current situation and focus on changes after conducting the model throw a quantitative design in a specific questionnaire survey.(Yin ,1994).

## **1.3 Research Question**

In regarding with the goal of this study a research question identified as follow:

Q1: what factors influence customers adoption of mobile shopping in Turkey?



#### **1.4 Research Objectives**

- Identify how students at foundations universities in Istanbul are aware of the expected benefit of using the mobile shopping system.
- Examine the relationship between the key variables in the original model, the perceived ease of using, usefulness and risk with the attitude to gain customer behavior intention for using mobile shopping.
- Study the possibility of applying this model to students of foundations universities in Istanbul and study the obstacles that prevent it.

## **2. LITERATURE**

### **2.1 Introduction**

The tremendous progress in several parts of our life from technological angle and the booming of globalization that changed the whole World to be small village and after the entry of "informative technologies ", which tried to facilitate and helped in spreading so-called e-commerce as a computer-based and a lot of means of technology to implementation and run of the businesses.

And with the beginning with this large technological booming that helped the e-commerce to appear, spread and help the recent business to buy goods and services needed from the place they sit in without having any extra cost and efforts as well as the businesses promoting their products and services without carrying any cost.

E-commerce is designed by a bank of technical high standards by a complicated infrastructure communication that used to link the users with the world-wide Internet channels and give the chance and opportunity to open for the Internet surfer a virtual environment of a million places just in a few seconds through the e-commerce channels, the perfect development of the e-commerce channels that enter all areas amazingly – the value of the e-commerce estimated at more than 15.6 trillion dollars \_ In India in 2016, for example, the volume of applications for network connectivity is estimated at over 35 million.

### **2.2 A Brief History E-Commerce**

The concept of e-commerce began after the use of private networks by American companies in the twentieth century, specifically in the nineties, but some researchers have another opinion of the date of origin, it was said that it emerged in the seventies of the last century through the Electronic Data Interchange between industrial companies (EDI) Has expanded the scope of e-commerce from mere financial transactions to more expansive transactions.

E-commerce business has passed between economic sectors of the business tell the arriving and dealing with three fundamental stages began with the using of computer technology in the new companies and economic establishments. (Rosenberg 1976)

In the essential stage maintaining the connection between the primary companies and network stores and their parents companies to the branches that supply to.

- At the first linking the main companies and supply chain with their parent companies and branches that follow them.
- Secondly set electronic Exchange media between the main companies and many suppliers using the value added network.
- Thirdly do all transactions and Exchange documents via Internet and considered the current stage of dealing.

In this stage the Exchange dealing information system has began between companies and economic institutions, the advantage of this Internet business transaction system helps in reducing the cost of the companies in this case product supplies can reduce the product price and get more competitive advantage among their competitors in way allow companies for faster turnover and growth in profit cycling because of reducing cost and time consumed to reach new potential customer.

In addition of giving the chance for companies to keep the existing electronic store and open and attract new customers through transfer to new ideas that help both companies getting wide range in the market place. Thus the advantage of the EDI enhancing possibility to initiate integration economic clusters which reduce fix and variable cost such as stationery, postage and Exchange correspondence.

Internet medium allowed companies shorting their advertisement cost because of the electronic print views that done through Internet channels to aware customer and new users for the new product or services. EDI also improved the companies cash flow and reduction of cost eliminate errors, ensuring and confirming transaction between them.

The best advantage of EDI is improving the image of an enterprise and increasing competitiveness as well as increasing the volume of Exchange between companies (Shapiro & Varian, 1999).

### 2.3 Define the E-Commerce

Points that define e-commerce in proper way:

- Electronic commerce for businesses as an idea for usage and management of business exercises identified with products and enterprises by exchanging over data over the web or similar specialized technological system. (Turban & others 2002)
- Electronic commerce (online business) is the advertising, purchasing and moving of stock or administrations over the Website or Internet programs. It includes the selling whole extent of online item and administration deals from beginning to end. E-commerce business mediums instruments incorporate with PC, applications, arrangements, servers, and different programming designs by e-commerce specialist companies and acquired by traders to increase online deals.
- Electronic commerce (EC): "Is a developing idea that depicts the way toward purchasing, services or trading items, administrations, and exchange data by means of PC systems such as Internet (Turban & Others, 2002).
- Electronic commerce: The capacity to purchase anything from anyplace whenever the time is it, which implies the utilization of Online business strategies and systems in the direct of business exchanges.
- Electronic commerce: It is the procedure of trade something of values for example, products, services, or data exchange through electronic means, generally the Internet. Or on the other hand: Its Sharing business data, keeping business up to date via network connections, and directing business exchanges by methods for media transaction systems (Gupta, 2000).

In conclusion all the World definitions stated that the e-commerce technology is a virtual door that opens a great wide virtual market place that helps companies open new competitive advantages to reach millions of customers and attract new.

## **2.4 Importance Of Electronic Commerce**

Through the previous definitions of the concept of electronic commerce, the importance of electronic commerce, including:

- It is an unprecedented way to reach markets in an easy and simple way.
- Provide timely and appropriate information for use in commercial, technical and other transactions.
- Availability of time and effort to obtain goods, services, information, and transactions.
- open a chance to get 24 in 7 days a week opened store without operation cost which is making Exchange transaction during all the day and night.

## **2.5 Characteristics Of The Electronic Commerce**

Electronic commerce a new concept in the commercial arena. It has the following characteristics and advantages:

- The accessibility of date because of the spread of the Internet in all nations of the World with the industrialized nations and through the developing nations.
- Simple to interface: The presence of a PC and a phone line in each of the two sites to secure correspondence and in achieved a goods trade.
- Eliminate the costs of exchange: It is sure that web based business will decrease financial separation, which isolates makers from shoppers who can straightforwardly buy without turning to traditional market.
- Speed of usage, is the speed of execution of business forms quicker than the customary techniques method helps the electronic commerce businesses achieve faster services provide by this companies .

## **2.6 The Fundamentals Of E-Commerce**

E-commerce, as seen from its concept, represents the result of scientific achievements in many fields and integrated with each other and the proliferation and continuation of the dependence in addition to the above on various other

essential segments and the most vital basics of development (the sort of exchange that we can call the economy New:

- Foundation or framework: All together for electronic trade to develop and accomplish its ideal goals, it must be bolstered and upheld by a proficient mechanical area in the field of the PC business and in addition the computer industry information sources that go into this field. The economy should have some related enterprises, This exchange does not rely upon the PC alone, but rather on the phone also (a modern communications base), which in turn requires many industries to feed the largest possible number of subscribers and all this requires support of scientific research and continuous development to innovate everything that is new to lead to good exploitation Elements List and increase its effectiveness as well as the current economy that can helping and developed the electronic commerce to spread.
- Certainty and security: Exchanges in the system of electronic commerce differ in numerous regards from physical shop trade, from the electronic correspondence procedure to the delivety of specific products and enterprises and the related payment settlement of electronic meansTherefore, their growth is based on mutual trust among the internal parties, especially in light of the lack of legislation governing such a new type of activity. Therefore, the concerned countries, especially the developed countries, enter into bilateral joint agreements or collective agreements and issue joint declarations focusing on the importance of trade And they are protected.
- Legitimate regulation: One of the fundamental components for instulling certainty and security in electronic business merchants is the existence of a fitting and suitable legals and regulations that sets the principles administering different viewpoints at all phases at the national level as well as at the international level. Indeed, this sort of new economy requires numerous corrections to Existing law aspect, exchange and financial payment and in addition the diffrent related areas in such electronic commerce path such as digital signiture electronic payment by different electronic means and the development of agreements and legally binding assurances for such exchange.

- Improving and diversification of economy structure electronic commerce does not arise from a vacuum, but operates in an economy and reflects what is going on in it and push it towards progress towards mutual interaction, but this requires the mobilization of different economy aspects, materials and services and enroll all the all the information technology in the production ,selling and distrubting and other related services, Therefore, the health outlook of this trade is a fundamental corner of the economy is linked to other influential and influential. Moreover, there are some different elements that assistance Online business in the spread of fitting financial policy, preparing, and education with training, and also a framework decent oversight to guarantee installment through the system.

## **2.7 Types Of E-Commerce Models**

The practical experience of e-commerce policies has resulted from many types of uses by the government sector or the private sector, ranging from the uses of the corporate sector, the government sector and consumers, as well as the emergence of other ways of applying them other than the usual ways in which they originated (using the computer and the Internet) International).

But the important thing is to know the user used in any area can benefit more in this type of trade, where there are categories that suit the applications of e-commerce more than others, the commercial market under it includes different types of the deal and different parties to the customers. Which showed patterns of e-commerce of the most important species and the weight and sound in the total trade and then the types of less involved and counted, namely:

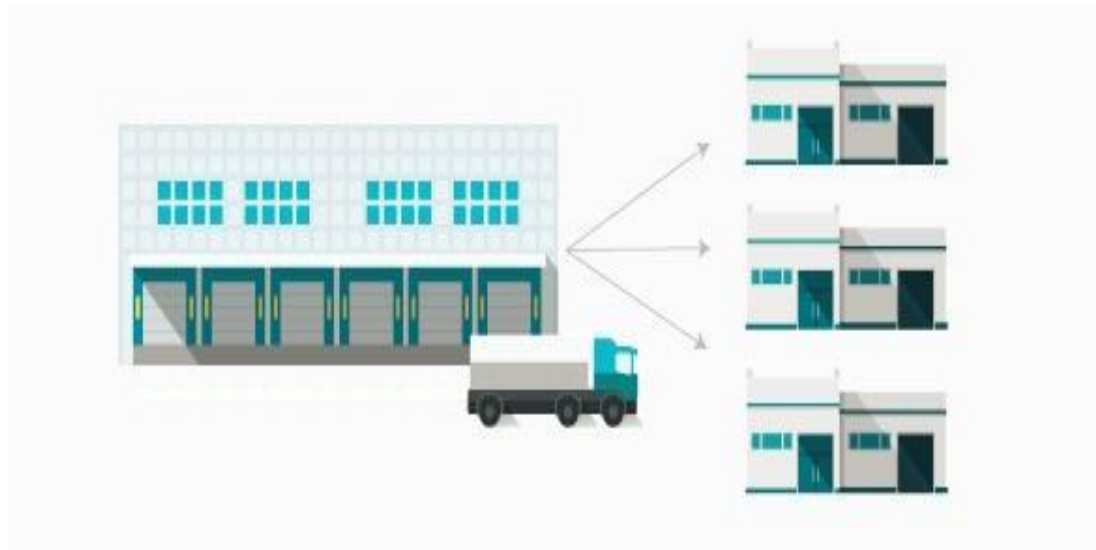
- Busniess, to busiess (B TO B)
- Busniess, to Costumer (B TO C)
- Costumer, to costumer (C TO C)
- Costumer, to business (C TO B)

### **2.7.1 B TO B type**

A B2B demonstrate focus around giving items starting with one business then onto the others in the same level. While a number of Internet business organizations in this specialty are services provider organizations, you'll

discover software organizations, office furniture and supply organizations, archive facilitating organizations, and various other web based business plans of action under this heading. Models you might be acquainted with incorporate the ExxonMobil Partnership and the Chevron Enterprise, Boeing, and Toxophilite Daniel Midlands.

Examples you might be acquainted with incorporate the ExxonMobil Organization and the Chevron Company, Boeing, and Bowman Daniel Midlands. These organizations have a custom, venture Internet business stages that work specifically with different organizations in a close enviornment. A B2B web based business commonly requires more startup money.



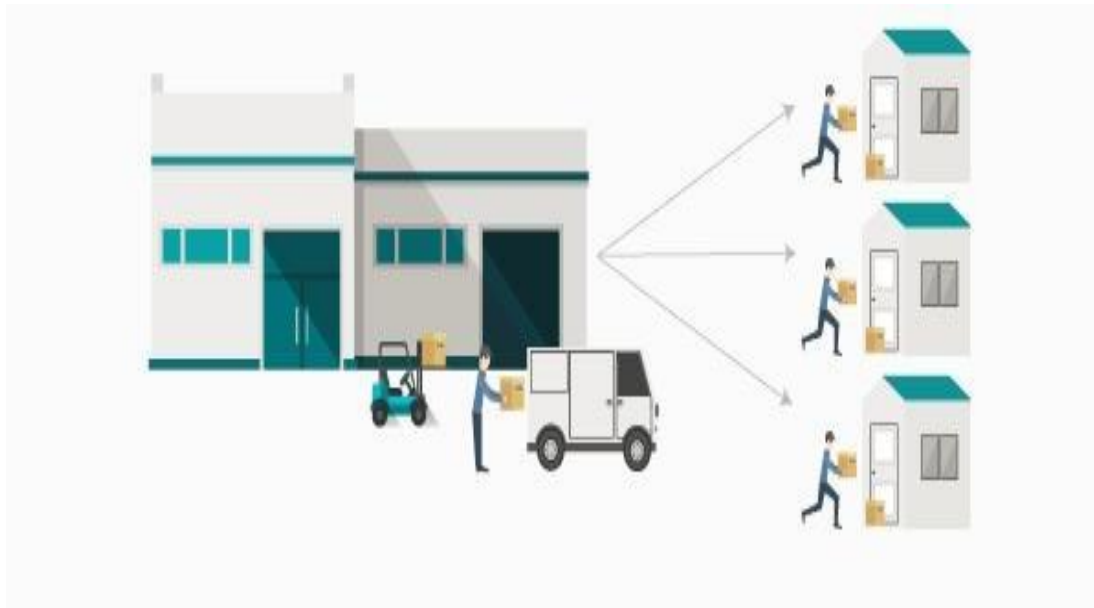
**Figure 2.1: B2B Model**

### **2.7.2 B2C – Business to consumer**

The business to consumer online commerce is the familiar type that comes to the consumer's mind when buying products or services directly from an online Internet-based store, as opposed to going to a traditional store. Here, the payment and all the services proceed through the online means.

For instances of B2C organizations are all over. Solely online retailers incorporate Newegg.com, Overstock.com, Wish, and ModCloth, and other major B2C Internet business organizations incorporate names like Staples, Wal-Store, Target, REI, and Home





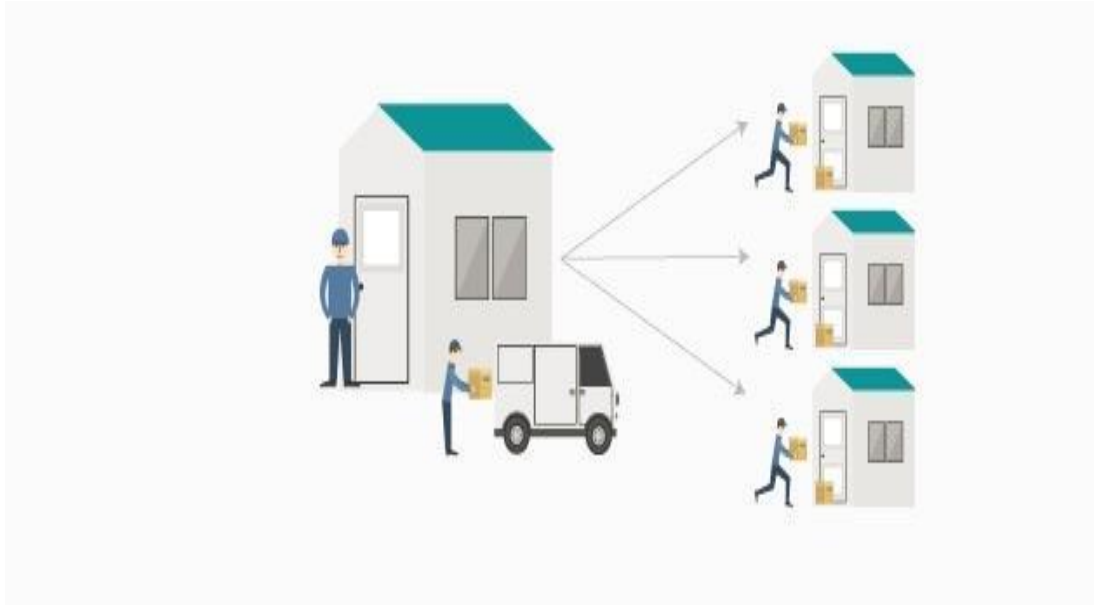
**Figure 2.2:** Business to Consumer (B TO C)

### 2.7.3 C2C – Consumer to consumer

The normal types of the e-commerce that all people know in either business in selling goods to customer through online means or business to another business such as the suppliers and other wholesale sellers so how it will be a trade customer to customer?

This type of trade opens an online Internet place where customers can buy or sell products or services to another customer or exchange data by using those websites and after doing this trade, customers pay a commission fee to those e-commerce sites. This type of trade found up after growing the customer confidence.

Regardless of the good achievement of stages like eBay and Craigslist, various other closeout and ordered destinations (the fundamental fields for C2C) have opened and immediately shutdown because of unsustainable models.

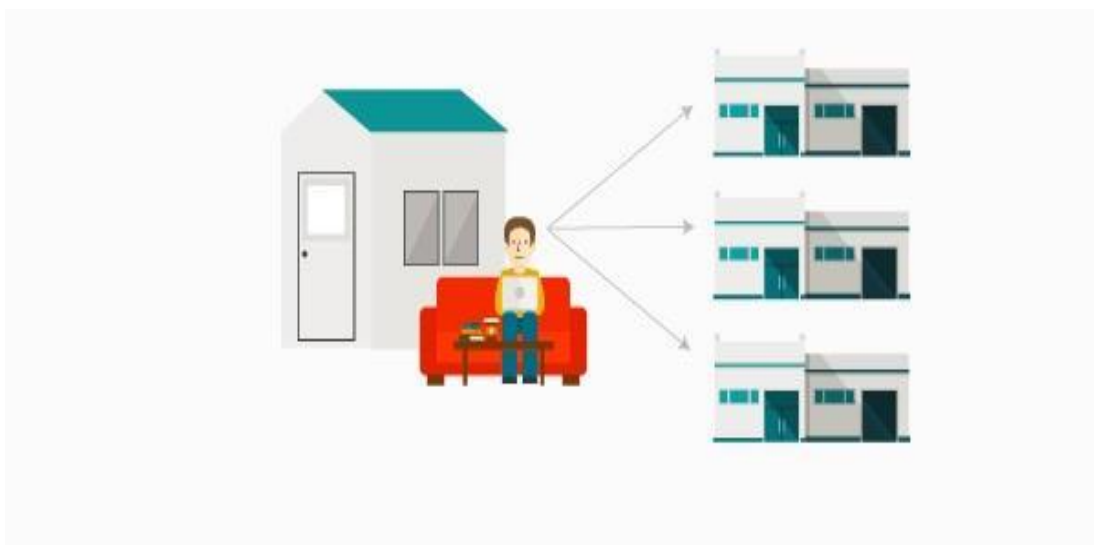


**Figure 2.3:** Consumer to Consumer (c to c)

#### 2.7.4 C2B – Consumer to business

Consumer to business trade almost not thinkable of people in this stage of time. this type is tending to sale product or service to businesses directly it could be solo partnership were as people help business in a way or another or equivalent services.

Revers auctions, servise provider sites such as like up work, and a few regular blog adaptation procedures like subsidiary showcasing or Google AdSense additionally fall under this heading.



**Figure 2.4:** Consumer to Business (c to b)

### **2.7.5 Other E-commerce types**

The models recorded above are the essential e-commerce business retail structures, however they aren't the main ones. Another model incorporates B2G, for organizations whose sole customers are governments. One model is Synergetics Inc , Collins, Colorado, which gives temporary workers and administrations to government offices.

Two parts that are shut for business visionary proprietors however are developing incorporate G2B for government deals to private organizations, and G2C, for government deals to the overall population.

### **2.8 Advantages of E-Commerce**

The advantages of e-commerce can be identified in the following points:

- Electronic commerce to provide service to consumers and companies on all products and products available on a global level as a whole, and the prices of these goods and services and the conditions they have.”
- Abandonment of presence in a foreign country by providing online marketing services to suppliers, thereby eliminating the opening of a shop or the use of an agent.
- Online contact points and virtual shops facilitate communications and thus eliminate the causes of delays in the flow of supplies. The availability of these supplies quickly and in a secure manner enables industries, wholesalers, and retailers to reduce their inventory. This is a great help for companies, especially SMEs. To reduce expenditures.
- The compatibility of trade patterns with the features and behavior of this information age, so we have new ways of managing the business, such as selling and e-commerce between business sectors.
- Institutions that considered themselves isolated in a local market now considered themselves as a global institution with customers worldwide, achieving higher returns than traditional activities.
- Customers receive all information about the products they want to buy online 24 hours a day, and to meet their options easily and easily.

- Provide brochures, product information brochures, and price information without any human contact.
- Limit the use of paper transactions, For example, the method of electronic publishing has been widely accepted as it is smaller than the Encyclopedia paper, in libraries have been replaced by a large paper encyclopedia of modern electronic means, which can be stored on a cylinder.
- Provide new sources of income for businesses, because electronic commerce simplifies the ability of these institutions to market, and gives them new ways to reach them through networks available to all.
- Electronic commerce through the Internet simplifies dealing with these modern means of a contract or other transactions, which send the data related to the product in a format with a specific electronic connection to allow the start of transactions and completion through accounting systems.
- Access to the global market easily as all Internet users can view objective information about the product or service, allowing the opportunity to market the product or service in the local and external market.
- A greater opportunity for media contacts.
- Developing business and service performance. For example, companies specializing in dealing with companies have surplus online inventory through online auctions, with FourSearch Research predicting that these auctions will generate sales of over US \$ 7.3 billion.
- Developing the work of banks and converting it from the traditional system to the electronic system, though:
  - Access to the account in an appropriate manner, where banks provide all services including current accounts and savings accounts, credit cards and personal loans, in addition to other investment options, which is a competitive service compared to what the banks.

- Low cost
- Higher interest rates. "This is when banks are engaged across the line to offer a faster rate of response to the consumer. Interest on the deposit account becomes less, while interest on loans can increase, thus saving the client's account information. The account is available to customers in an updated manner. "
- Payment of benefits electronically.
- Transfer funds easily.
- Provide a database on the past and present situation.
- Ability to conduct a performance survey to choose a new product or service.
- Risks Of E-Commerce:

Risks appear by using e-commerce

- Uncertainty, especially in this type of trade, between parties that are not known to each other and which do not have sufficient commercial reputation.
- The popups hacker that can be getting place hididnly in alot of websites and e-commerce programs which Works as stealing the costumer and users creadit card number and passwords and try to damege users information to use it in bad way.
- The presence of international espionage by some governments and large companies and multinationals on the business and trade of some companies and individuals under the pretext of security reasons are obtained secrets of business deals and pass them to competitors.
- The process of fraud and fraud, which is practiced under the names of known and with the intention of blackmail and get money in the shortest way.
- The absence of laws and regulations binding all countries in the world, and if found in some countries, they differ in their legislation between them, and therefore only valid in the country legislator. This type of

trade goes beyond borders and geographical regions. Different international laws and regulations in accepting or not accepting transactions in electronic communication networks.

- Lack of the infrastructure required by the communication and information networks in all countries, making them exclusive and only for some countries in the world.
- Need the technical and technical staff that is managed by the management in addition to the specialized staff in the management, which carries additional burdens.
- You need a high level of risk, and the capital is known to be cowardly by nature. So, to this date did not capture the large capital. (Campbell & Goodstein, 2001)

## **2.9 E-Commerce Constraints**

The constraints that limit the spread of electronic commerce can be divided into two categories:

### **2.9.1 Technical constraints including**

- Problems of security, protection, quality, and reliability still require universally recognized standards.
- The speed of communication is still insufficient for the requirements of e-commerce applications.
- Electronic commerce software development tools are still in their early stages.
- The high cost of e-commerce projects that small businesses can not afford.
- Problems with the application process that requires high efficiency cannot be done without automated or computerized stores.

### **2.9.2 Environmental and regulatory constraints, including**

- Attention to security, protection, and privacy are among the most important obstacles to the use of electronic commerce, where there are many cases through which fraud, deception, and fraud.
- Lack of confidence in electronic commerce operations because the seller and the buyer do not deal with each other directly, but through the network.
- Not solving many issues related to legal and public policies such as taxes and others.
- Lack of clear methodologies for assessing and measuring the benefits of electronic commerce.

### **2.10 Mobile Shopping**

Mobile devices such as smartphones and tablets have dramatically changed the user experience of e-commerce, leading to a new approach that enables retailers to offer their customers more effectively. This has led to the emergence of a new term called "mobile shopping" as an extension of e-commerce where business activities are carried out in a wireless environment using mobile devices (Zhang et al., 2012).

While online commerce has grown exponentially and has accounted for more than a third of global e-commerce transactions (eMarketer, 2016), many industry reports highlight their importance as a contribution to other channels (for example, Omni-channel shopping).

When comparing phone interfaces to traditional web-based interfaces, mobile shopping has a much lower conversion rate (Bhalla, 2016).

Some digital marketing professionals suggest that this may be due to the nature of mobile shopping, which works in the early stages of the purchase cycle (Ghose et al., 2012), where consumers look for products and assess their suitability to purchase. Companies are associated with high levels of investment in creating and redirecting online shopping offers through mobile shopping apps that are compatible with mobile device signals and allow features that can

enhance customer convenience (for example, integrating payment with in-device payment methods such as Apple Pay). However, a wide range of literature points out that due to privacy and safety issues, consumers are less committed to completing purchases through their mobile devices, and therefore tend to complete the shopping trip on a medium with more reliable features (Luo et al., 2010).

In studying mobile adoption in different contexts, many studies have not focused on the specific context that mobile applications aim to address (Kim, G., Shin, B., Lee, H.G., 2009). These searches in mobile shopping on shopping applications should provide a comprehensive understanding of the various factors affecting their adoption and use. In view of the above, one of the comprehensive models for evaluating the factors that influence the adoption and use of mobile shopping applications and how cultural setting can affect their use is important because it can inform researchers and practitioners to understand consumer behavior among shoppers.

Mobile shopping (M-Shopping) allows consumers to request goods and services using all types of mobile devices without being bound by time, geographic location, or even the size or shape of the products (H.P. Lo and Yu Jin Su, 2009). Although studies and research on mobile shopping are still in its infancy, most are talking about different technologies and how to drive users to adopt them (S. Yang et al., 2012). Or the role of perceived value as an intermediary in determining the behavioral intent to adopt online shopping for fashion tracking, for example. Some studies have found that the demographics of consumers such as age, experience, past experiences and relationships with mobile devices are used to be the main factor in mobile shopping decision. A US study of American consumers and their performance expectations, social impact, and soft conditions have been found to be major drivers of intent for mobile shopping (S. Yang et al., 2012). The study confirmed the role of perceived interest (PU), perceived ease of use (PEOU) and self-criteria (SN) on mobile shopping intent.

Mobile shopping apps are apps created primarily for playback on mobile devices such as smartphones and tablets, sharing the same interface features as the host operating system. In two of the largest application repositories: iTunes (for iOS) and Google Play (on Android), there are many apps that offer mobile



shopping such as discount, daily deal apps, price comparison apps, digital wallets, payment applications and branded apps in the context of our search. The research has so far focused on the adoption and use of different types of mobile applications, but little attention has been paid to mobile shopping applications and these factors affect their acceptance of them. Taylor and Levin (2014) report that application design elements affect users' interests as well as intent to purchase them. Zhao and Balagué (2015) suggest that customization and customization are necessary to sell products in e-commerce applications. Previous studies of mobile phone interfaces have mostly focused on improving mobile application and visibility (Biel et al., 2010; Tarasewich, 2003) and assessing the impact of demographic, psychological and behavioral factors on mobile application adoption (CS Lee et al., 2010; Verkasalo et al., 2010) as well as the impact of user reviews on their performance and acceptance (Huang & Korfiatis, 2015).

## **2.11 Mobile Shopping in Turkey**

According to data obtained from the ICTA, with the move to 4.5G in April 2016, the number of 3G subscribers fell to 15 million, while the number of subscribers reached 4.5G to 56 million subscribers again in March 2017. By March 2017 in Turkey, the number of mobile broadband subscriptions that access Internet services through both laptops and mobile devices reached about 53 million (ICTA Market Data, 2017).

In addition, according to ICTA data, the number of Internet subscriptions over broadband reached 12.5 million in Istanbul, 2016 (ICTA Annual Statistics, 2017). According to other statistical data, the number of smartphone users in Turkey is about 28 million and is expected to reach 40 million by 2018 (eMarketer, 2014).

When the "Advanced Payments Report in Turkey" published by the Interbank Card Center (BKM) is analyzed in 2016, it is understood that the share of online payments within the total number is equal to TRY 68 billion (the total amount is TRY 587 billion). Mobile in all online retail payments from 20% to 30% in Turkey, 2016 (BKM, 2016). The above-mentioned number of mobile broadband

subscriptions and data on mobile marketing activities indicate that mobile shopping is evolving as a thriving market in Turkey.

## **2.12 Technology Acceptance Model**

### **2.12.1 Introduction**

As a result of the tremendous growth on the Internet, and with the advancement of web technologies, the use of electronic applications such as e-learning, e-business, and e-governance across many different disciplines has been used very widely and unprecedentedly. Moreover, the increasing availability of non-retinal and wireless technologies of all types, mobile, and non-mobile, makes these types of Internet-based electronic applications more widespread and user-friendly.

Although these technologies create possibilities for new ways to participate and call for new and diverse ways, digital transformation is required for people in different disciplines in terms of attitudes and ability to adapt to this technology (Yuena and Ma, 2008).

Of course, since Internet use is increasing in various disciplines, the importance that has been highlighted shows that technology adoption has increased similarly (Fusilier, Durlabhji and Cucchi, 2008).

It is important to note that the real benefits of these techniques in deciding whether to use or not to use are subject to constant change. This concern is based in part at least on the use and acceptance of relevant technologies by intended users.

The model of acceptance or adoption of technology has received considerable attention in the last 10 years. Researchers and organizations, therefore, try to find factors that affect an individual's acceptance of technology, which eventually enhances his use. Several theoretical models have been proposed to explain the behavior of user acceptance. Among them, the application of the TAM model, which is currently the dominant predictive tool for testing user acceptance of new technologies, proposed by Davis (1989) is widely applied and tested experimentally.

In addition, researchers have contributed hundreds of studies to survey and experimental research conducted on TAM since its inception. Compared with competing models, TAM is thought to be more horrific and predictable (Venkatesh & Davis, 2000).

Acceptance of technology can be interpreted as the perceived desire to use information technology while working on the tasks to be accomplished. However, it is known that not all individuals who wish to use technology in their daily lives really use technology. Therefore, the study of the basic factors that push people to accept technology, in other words, the reasons that affect people in the adoption process, is a big phenomenon. In order to detect these factors affecting adaptation, many researchers have undertaken studies to increase acceptability (Fusilier, Durlabhji and Cucchi, 2008).

Certainly, the factors associated with the pattern of acceptance of technology, and the factors affecting it are many and very wide. It is also certain that the interpretation of this level of acceptance can be better explained by looking more broadly at all these factors and causes, for a better outcome that can describe reality more closely. (Chuttur, 2009; Dillon, 2001; Dillon & Morris, 1996; Turner et al., 2010).

The TAM model seems to be one of the most widely used models because of its understanding and simplicity (Legris, Ingham and Collerette, 2003). TAM suggests that perceived ease of use and perceived usefulness are foreseen in the acceptance of information technology.

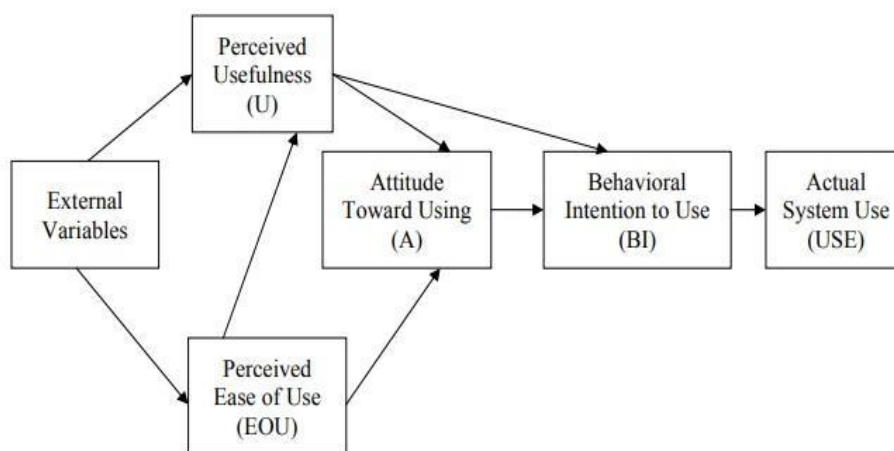
It is widely used since its development and has been tested using a variety of applications and studies have been carried out to confirm this. However, there has been a long debate about its basic characteristics and its usefulness for research. The review of the "Acceptance of Technology" research should reveal the most effective variables and provide a deeper insight into the behaviors that predict the use of technology proposed by Davis in 1989. In addition, the disclosure of key variables that the model expects will guide future researchers Need to study.

### 2.12.2 Technology acceptance model

This model targets the acceptance of technology model (Davis 1986 & Davis et, al 1989) directing user behavior towards acceptance of modern information systems (IS). This model consist of factors as belifes, attitude, intentions and behavioral factors. TAM "aims, particularly, for describe behavior of users during their use of computers or similar technologies through huge rengo of end users compute techniques and the user groups" (Davis, et al 1989)

Of course, tecnology acceptance model is the most used model that explain the attitude and intention behavior of use new electronical tecnology (venkatsh 2000) more from twinty years. TAMs have been considered as an agreed as model that can discover and study the acceptability for new entry of e-commerce tecnology in workplaces and universities (chau ,1996 & davis et al ,1986 & Johanson and hignite ,2000 & kim and bonk,2006 & venakatesh and davis,2000 & yi and hwang 2003).

For knowing more deeper about the users accpteing types based on information systmes IS in the workplace, (Davis, 1986). Mentained the behavioral relationship with respect to the Telecommunications Regulatory Authority and proposed the TAM model. The TAM model provides several explanations and linking with in 2 main factors the percevied use of ease (U) and the percevied usefulness (EOU) , and the attitde of the e-commerce users toward intention of use and the use of computer tecnology (Davis,1986 & Davis et al 1989).



Technology Acceptance Model (TAM)

**Figure 2.5:** TAM technology acceptance model

TAM proposes assumptions about user behavior and intent towards determining the basic behavioral intent of using the actual system published by the TRA. However, a group of scientists, Matheson (1991), (Taylor & Todd 1995 c) discussed that the perceived of usefulness and Ease of use can be tested slightly within overlaps with a group of beliefs (standard and controlled beliefs). (Davis, 1989) identified the perceived ease of use and usefulness in the following table

**Table 2.1:** Definition Of perceived usefulness and perceived ease of use (Davis, 1989)

	Definition
Perceived Usefulness	The degree to which a person believes that using a particular system would enhance his or her job performance.
Perceived Ease of Use	The degree to which a person believes that using a particular system would be free of effort.

In the same context, Davis and others also concluded that there are many variables extrnaly that can Show individual deffrences, conditions and constrains that can able to controlled by management to be very important factors of the perceived ease of use and usefulness and the users an deven there behavioral intention to use . In his study of the model, Zhao (1996) emphasized that external variables can be characteristic features of the technological system, training, documentation and user support. For all this, the model must undergo future actions to implement the scope of what external variables propose (Davis, et al., 1989).

The TAM model was implemented from the very first time that Davies introduced and developed the system in 1986, and the model was conducted in a lot of places and on information technology systems. Synthesis of several research centers, led by (Kozar & larsen 2003) shows that TAM has been conducting in lot of places like general busniess, communicstion, Office systme areas and Professional busniess systems. In reviewing these analyzes, it was necessary to convey some of the comments that contributed to critique the model to try to develop it better, including:

First of all the previous studies depend on self-reports used like a measure for an actual use of such system, but researchers interpreted this by saying that this type of self-reporting may be a causation of normal relationship between (TAM) dimensions. (Agarwal & Karahanna 2000, Y. Lee et al 2003, Podsakoff & Organ 1986).

Secondly all previous study and researches have tested the TAM in a specific period of time or short time in terms of exposure of the technological systems. However the beliefs and feeling of people change from time to time in terms of their intentions and in certain time with respect to the environment effects (Davis 1986 & Y. Lee et al, 2003).

Thus, results of the old studies have shown less interpretations for TAM, particularly studies which did not get the external factors in their consideration while applying TAM structures. In general, most of the researchers found that the perceived usefulness factors is the most important element in determining the willingness of use of the e-commerce technology, where as the perceived ease of use has also a huge effect on the usefulness to intend to use the online system (Venkatesh & Davis, 2000).

## **2.13 Application on Technology Acceptance Model**

### **2.13.1 The perceived resources and TAM model (PRATAM)**

PRATAM model based on the basic consist of the TAM model and its application in the online education systems.

In this part TAM reviewed modifications and extension rely on the old previous studies on e-commerce online systems.

This part also maintained the previous TAM applications, and studies done by (Davis 1986, 1989 & Davis et al 1989) thus studies related to al-Qaeda's Internet-based systems or previously conducted in large universities in South-East Asia over the past time

Davis applied the first study in about 1986 through applying TAM model on 40 master student in 2 business graphic system.

The result come up with gaining benefit has strong effect on attitude of users and on behavior toward intention of use for the actual system, thus perceived ease of use in circulation has slightly effect the attitude toward use of the system with moderate influence on perceived usefulness. Toward system attitude has just moderate effect on using online system (Davis. 1986).

Not having enough time to conduct the intention factors on the study because of the study design the intent factors were deleted from the study (Davis 1986 & Davis et.al 1989) were applied his study on 107 full time Master student Word process program.

Results confirmed the validity of links suggested the predictability of the computer through the intentions of the users. Perceived usefulness the main factor determining the intention of the user to use. Were as the perceived ease of use still have important impact on intention of users. Both studies applied by (Davis,1986) the study were applied on 152 student the researchers founds that total of using 4 computer with 2 application for each student was significantly has good correlated with expected perceived ease of use and usefulness toward use online technology.

### **2.13.2 Technology Accepting model 2 TAM 2**

In order to maintain Davies' (1993) points regarding the external factors that effect the perceived usefulness and ease of use, (Finch & Davis 2000) proposed a theoretical extension for TAM model to a TAM 2 with cover two extra categories which is first social influence and cognitive instrumental processes there definitions will be mentioned in the table below:

**Table 2.2:** Definitions of Social influence processes and cognitive Instrumental processes factors (Chismar and Wiley-Patton, 2002.Venkatesh & Davis ,2000)

	<b>Definition</b>
<b>Social Influence Processes</b>	
Subjective Norm	An individual s perception that people who are impoetant to he or she think he or she should or should not use the tecnology.
Voluntariness	The degree to which one perceives the use of the technology as a mean of enhancing one s status within a social group.
Image	The extent to which one perceives the adoption decision as non-mandatory
<b>Cognitive instrumental processes</b>	
Job relevance	An individual’s perception of the degree to which the technology is applicable to his or her job.
Output Quality	An individual’s perception of how well a system performs tasks necessary to his or her job.
Result Demonstrability	The tangibility of the results of using the technology.

Many factors affect the decision of users to accept or reject new systems, including social factors and the merits of individual individuals. In a joint study, (Venakatesh & Davis 2000) has said that subjective, voluntary and image criteria those three factors said that interrelated factors belong to this stander of category. Together with perceived ease of use, the two worlds suggest the importance of the functionality of the new innovative technology and the quality of its output, as well as the ability to demonstrate results as factors for useful processes in cognitive perception. In addition, experience factors also suggested reducing the effects of subjective criteria to the perceived benefit and intention of their use.

These models and theories are aimed at several main objectives, foremost of which is explaining and clarifying the way to clarify the acceptance of users of



technology and the adopting of modern innovation. It is also necessary to maintain a theoretical understand why technology is developing always, introducing disseminated and accepted. For those reasons many models and theory designed and developed throw dissemination, adopting and acceoting for the innovation. Part of them besid on social and physicological contexts and focusing on innovations. On the contrary, were others focus on the factors of innovation and what will lead to. Becouse of the diverse testing, they tested by using multiple application and ways in many studies and has became the most used theroys to studing the users acceptance for such new online technology notice the use and the goals.

### **3. METHOD**

#### **3.1 Research Methodology**

The researcher will depend on the scientific method in the preparation of this study, using descriptive and analytical approaches, which will describe and assess the reality of. Descriptive and analytical approaches tend to compare and evaluate the phenomena in order to access the meaningful generalizations to increase the amount of knowledge on the subject, and then extract conclusions, evaluate and test hypotheses in order to reach a clear and practical recommendation.

Researcher uses a questionnaire for the purpose of gathering information and trying extrapolated in an attempt to get out of the logical outcome of the case study discussed.

#### **3.2 Population And Size Of The Sample**

The research will choose sample number of 200 from 5 foundation universities in Istanbul. The Sampling adopted by a non-random sampling mechanism which is used in a limited range of studies.

The response rate to the survey was 160 students rate of 80%, and this is good rate for the analysis.

#### **3.3 Convenience Sampling**

The researcher adopted a non-random sampling mechanism called "Convenience Sampling", which is used in a limited range. This method has many advantages besides some disadvantages. Through this mechanism, it is possible to save a lot of time and effort in identifying the communities and trends of the study, and the scope of work, and its relevance to the subject of the study, and to build a clear understanding of the reactions of the elements of society towards the subject of the study, at the same time is not considered a precise mechanism by

which the results of big scientific studies, so you can not make big decisions based on them.

In order to reach the target group accurately, the researcher distributed online surveys through social media with a total of 200 surveys and asked them to complete it in July 2018. The researcher obtained a total of 160 response, with a response rate of 80%. After parsing the initial data, the data checking method was used and in total 15 of the returned replies were invalid due to incomplete values and 25 of them they didn't answer. Finally, only 160 of the answers were acceptable and identified as one valid for further analysis of statistical data.

### **3.4 Development Tools And The Design**

The designed questioner were adopted to measure the study factors perceived ease of use (EOS), usefulness (U), Risk (R), Attitude (AU) and the behavioral intention toward use, the questioner consist of 4 parts as follow:

Professional and personal traits: in this section will be collecting the personal and private information such as gender, age, income level, and the education level.

- Perceived Usefulness (PU): To measure this item the the researchers were adopted a specific measurment that designed fort his purpose, which developed by Jen-Ching Wang-July 2004.
- Perceived Ease of Use: To measure it, the researcher treated the study using the approuch of component based usability questionnaire CBUQ this measurment can test the perceived ease of use in a specific part in an interactive online system

(Venkatesh and Davis 2000 & Jen-Ching Wang-July 2000).

- Attitude Toward Using: The "Attitude Toward Using" factors measures the degree to which customers accept the new technology used for shopping through mobile phones Taylor & Todd, 1995.
- Behavioral Intention of Using Online Channels: Emphasizes the rule of intent before performing the behavior but addresses situations where the individual does not control all the variables which influence the current

performance of a certain behavior in conclusion new theory emphasizes that actual behavior changable besid on the level of the control exercised by individual over his behavior and the strength of the persons intentions that couse his behavior.In Effin's 1985 article, self-efficacy is assumed to be important for determining the power in which an individual intends to achieve a behavior.

**Table 3.1:** Questions Sources

<b>code</b>	<b>Each factor Source Questions</b>	<b>Source</b>
(PU)	Perceived Usefulness	*Jen-Ching Wang-July 2004.
(PEOU)	Perceived ease of use	Venakatesh & Davis 2000 *Jen-Ching Wang-July 2004.
(R)	Risk	*Jen-Ching Wang-July 2004.
(AU)	Attitude Toward Using	*Taylor & Todd, 1995
(B)	Behavioral Intention of Using Online Channels	*Sung Youl Park.2009 *Venkatesh and Davis 2000 * W. Boonsiritomachai, K. Pitchayadejanant-2017

### 3.5 Instrumentation

In this research likert type will be used were as a scale type from 1 to 5 were 1 not agree and 5 extremly agree

This study analyzed results of previously published literature in order to explore the relationship between the research factors and the behavioral intention of using mobile shopping in turkey. These items were divided into five factors:

- Perceived ease of use
- Percived usefulness
- Risk
- Attitude toward use

- Behavioral intention toward use (Venkatesh and Bala, 2008)

The first item, PEOU, concerned the understanding and ease of dealing with mobile shopping systems. (Lai, 2016).

The second factor related to the extent of perceived benefit (PU) was related to the contribution of technology to improve performance and increase the pace of mobile shopping. (Ajzen & Fishbein, 1980; Sheppard, Hartwick, and Warshaw, 1988)

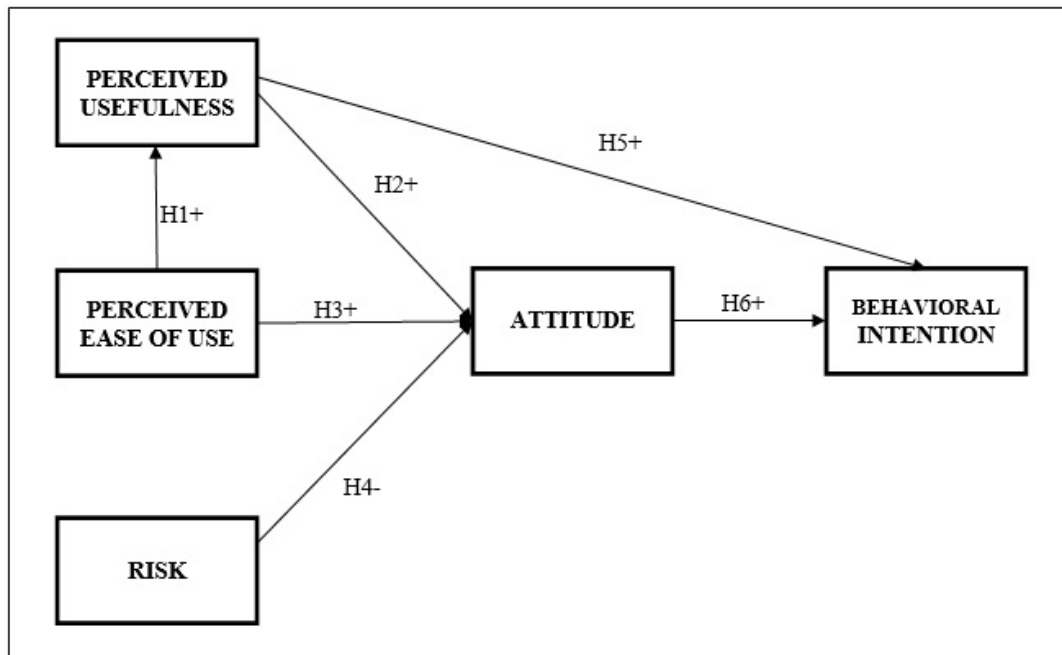
The third factor is the perceived risk of use, which aims to investigate users' concerns about the use of technology in their mobile shopping operations.

The fourth factor relates to the behavioral intentions of using the mobile phone for shopping in the future. Were their experiences sufficient to give them confidence in the mobile shopping process, and do the users intend to continue or not?

While the fifth factor tried to measure the behavior of users to use the phone in the mobile shopping.

## 4. HYPOTHESIS

### 4.1 Main Hypothesis Model:



**Figure 4.1:** Mobile shopping adoption by the Technology Acceptance Model (TAM) model

### 4.2 Main Hypothesis

#### 4.2.1 The ease and usefulness of using mobile shopping

Mobile shopping is a virtual world through which customers exchange goods and products through their mobile phones in many ways. Davis (1989) identified the perceived ease of use as the level and degree of a person to think that using online specific system as buying medium believes that will not be ease to use as the real market store " People will use a particular online store to get shopping through their mobile phone if they find it easy to understand they will continue there shopping and decide to buy from it. Thus, the simple and easy to use application will attract more users than another competitor. The Perceived usefulness simply defined as the degree and the belief of using a particular

system or program will enhance his or her performance and can be explained in points:

- Building the perceived ease of use is a theoretical alternative to the concept of comparative advantage developed by the adoption theory (Chen et al., 2002)
- Where comparative advantage can be understood as the extent to which technology is seen as a distinct advantage and may involve economic gain, social status or other benefits from its adoption (Rogers, 1983)
- Thus, when any applications are proving sales through the mobile phone as useful and easy, they will be used more. Customers generally use an e-commerce application to find information about the product or services or use the site to purchase the same product.

Here are some studies on the relationship between the perceived ease of use and usefulness.

Researchers mentioned the experience of respondents. Dealing with technology will increase their perceptions of the ease of the new shopping system through mobile phones. STOEL & LEE (2003) found a different result from this study but in a different geographical area. Where they concluded that the experience of technology users positively affected their understanding of their ease of use. The time factor may play a role in this difference because the previous study was conducted in 2003, while the present study was conducted in 2018. Technology has largely developed the lives of young people and has become a lifestyle although their daily activities of life were the online offers and other social program entered all aspect of the student life and push them to learn more and get experience in going mobile shopping. The studies prove that how much the mobile shopping clear and well designed the more ease to use and been useful to users that want to discover new technology.

H<sub>1</sub>: There is a positive relationship between the Perceived ease of use and perceived usefulness of mobile shopping.

#### **4.2.2 Usefulness and attitude toward using**

Based on theory of understanding attitudes and predicting social behavior by Fishbein and Ajzen (1980), external variables influence the attitude toward use,

which in turn shapes attitudes towards the adoption of new technology. The attitude, itself is influenced by the perceived usefulness, and ultimately affects the behavior of the users tending to use mobile shopping technology.

As described in the theory of rational procedure (TRA), (Lovelock, 2001; Lai, 2007), these relationships will be predictive of behavior when behavioral and doctrinal factors are determined in a manner consistent with behavior that should be interpreted on many grounds, including relationships related to the objective adoption of shopping technology through mobile phones. Within IT literature, TAM has been widely applied to understanding one's attitude to the use new technology in shopping through mobile devices, which is used to predict the adoption and to use new technology. Building attitudes in TAM represent the attitude towards the behavior using mobile shopping and new entry technology. Previous studies used variables to determine the actual use of the information system. ( Ajzen, I., & Fishbein, M .,1980)

The researches says that the attitude of the individual is an important factor affecting one's behavior in accepting or rejecting new technology. Davis (1986) emphasized that the role of social influences in the acceptance and use of information technology is an important area for a better understanding of TAM applications in the real world. The search for the role of social impact processes in the accepting of technology and behavior of users is also relevant to understanding the instability of belief structures in certain contexts of technology acceptance.

The attitude towards in-person use includes provisions for the reaction and the degree of perceived usefulness, whether positive or negative, and whether the customer is in favor or against its implementation (Leonard et al., 2004). All this, in fact, has a direct impact on the intention of use and the final attitude towards use of mobile shopping.

TAM theory suggests that the public feelings or public attitudes towards the use of a technology-based system are key determinants of whether or not to ultimately use the system, Davis (1993). The TRA and the TPB also assume that the individual's adoption of a new behavioral intention-driven by accepting information system, (Davis et al,1989).



With understanding for component of consumer behavior it can have strong, direct and positive influence on the user attitude toward using mobile shopping.

H<sub>2</sub>: there is a positive relationship between the usefulness and the attitude toward using the mobile shopping.

#### **4.2.3 Ease of use and the attitude toward using mobile shopping**

Authors prove in the third hypothesis the positive relationship between two factors and they showed that the more the mobile shopping program ease to use and clear to end users to surf the more likely to have more strongly attitude from the customer and end users to shift their attitude toward use of mobile shopping system and finalize their buying decision through online channels. (PEOU) as a separate variable on the attitude towards the use of mobile phone in shopping (ATT) as a dependent variable. (Koufaris, 2002) has concluded that the factor of advantage outweighs the ease of use of a such technology. A study (Tselios, 2001, Papadopoulou & Daskalakis), which examined the attitudes of university students in Greece towards harmonious learning from use TAM model through an application of pre-test and post-test the results found out that perceived ease of use and usefulness has a positive impact in changing of attitude toward use of mobile shopping, This is actual use of the system is due to a key determinant of its usefulness to users.

According to Vipin and Eisen (1975, p. 232), the attitude toward actual use is determined by predicting how easily the user thinks he can use mobile applications.

TAM assumes that PEOU has a direct positive impact on the attitude towards the use of applications dedicated to mobile phones. The complexity of a particular system will become one of the barriers to the adoption of this innovation (Rogers, 1995). Current studies indicate that the perceived ease of use is important key in determine attitude towards mobile shopping. The perceived ease of using specific applications and making purchases through mobile phones should provide an attractive experience individual willing to have ease shopping via mobile shopping system.

H<sub>3</sub>.there is a positive relationship between the perceived ease of use and attitude toward use of mobile shopping.

#### **4.2.4 Risk and the attitude toward using mobile shopping**

Many previous researches on behavior show that the trust is so important factor in online mobile shopping by processing the payment through Internet via debit card or credit card and those plays an important role in driving the attitude of users to change the way they think and the intention toward using the mobile shopping (Shankar, Urban, & Sultan, 2002).

Many researchers and authors seen that perceived risk factor (R) has a negative relationship on attitude toward using of mobile shopping were the more increasing the risk in using mobile shopping programs and sites the less likely that users of this technology is decreasing fasterly, because when it came to Money and private information all costumer users afreid to be losen and damege the securd private information. Which can be solved by using a system away of a the high risk factor and find new high trustable tecnology and strong firewall which resist any risk that damege the interface of mobile shopping , Against all those factors the Researchers has shown that there is a different perception of risk and how interplay of the risk value which might be high or low values of the mobile shopping characteristics depends on the previous factors were the performance risk and financial risk which mostly will occur form technological reasons but the security risk perception driven from the real individual interfering effected the mobile shopping users.( Bensauy & venakatman 1996 : Featherman & pavlou 2003 : pavlou 2003). The followed risk containing by following three factors which consist mainly of first the financial risk refers to the money lost during using the mobile shopping the second in performance risk regarding the system down the might occur during using the mobile shopping system and when does not work and it might cause losing money and time , the third one in security risk caused from sharing the mobile shopping users their private information which might be causing a really big problem especially banking information.(Grob 2016 ,Holak & Lehmann 1990 ,lee 2009) .

H<sub>4</sub>: there is a nigtive relationship between risk and attitude toward use of mobile shopping.

#### **4.2.5 The usefulness and behavioral intention of mobile shopping**

By applying the TAM theory on a segment of customer Authors again found a positive impact of usefulness of a such mobile shopping system on the behavioral intention of users adoption toward more use of mobile online systems, on another hand, The use of an individual's physical system is determined by a behavioral structure, which is jointly predicted by the expected benefit and expected usefulness. Venkatesh (2000) assumes that for any emerging innovation, perceived usefulness is a key important deciding the intention of users to accept a new technology such as mobile shopping system and response users behavior accordingly. Thus, even if the system is supposed to be useful by the individual itself, if the system is very difficult to use users normally tend to get bored and go away, the usefulness of improved performance that can be derived from the system outweigh the reduces efforts required to use them. Several studies have stated that the perceived usefulness has directly and significantly affects the behavioral intention to use a particular system. When this belief is increased, surely will be increasing in intention of consumers to use shopping through mobile phones. In the analysis of customer behavior, the expected benefit of a specific consumer intent to use applications on mobile phones was tested in their shopping processes.

Ease navigation, useful access and display of goods leads customers to convince themselves that shopping through mobile phones is useful for them than traditional shopping and gives them similar results without loss of quality, time and have better price. This, in turn, will affect their feedback and behavioral intent towards this technology and thus more use of this technology.

For many years, research has provided ample evidence that current usefulness have got an important effect on attitude toward use of mobile shopping, technology, whether direct or indirect within its effects on perceived usefulness. (Agarwal & Prasad 1999, Davis et al 1989, Venkatesh 1999).

Research has shown that there is a significant impact of the usefulness on users in any system on the intention toward use the system (Venkatesh et al., 2000). Usefulness was found to be the second most important determinant of users' behavioral intentions towards the system. The main reason people use mobile

shopping and banking money transfer services is that they find it useful and faster than normal shopping ways. (Luarn and Li, 2004).

In the pre-implementation phase, users found that the ease of use of the system in some studies does not have important influence on their behavioral intention to use mobile shopping but instead affected their intentions only through the perceived usefulness of the system (Szajna 1996).

The data also show that the (ATT) as a dependent variable was also confirmed the acceptance of the fifth assumption Which provides for the perceived usefulness of the system positively linked to trends.

This finding is in line with the findings of Stoel & Lee (2003) that consumer perceptions of usefulness and use of mobile shopping technology have positively influenced the trend towards technology. Positive because of the usefulness of the shopping system used and the feeling of benefiting from it in the work of spreading the method.

H<sub>5</sub>: there is positive relationship between the perceived usefulness and the behavioral intention to use mobile shopping.

#### **4.2.6 Attitude and the behavioral intention of using mobile shopping**

The researchers study the impact of the attitude of the mobile shopping users and the positive influence on one's behavioral intention that leads to use a new technology the TAM model was found by (Davis,1986), to explain mobile shopping users behavior among a wide segment of users and clients using computing technology, but at the same time, it was not theoretically imagined but theoretically justified. TAM was developed by the TRA that focuses on clarifying positions on the intention to use a specific technology or service.

TAM suggests that the attitude and behavior of the individual towards the use of technology that we target in this model are determined by shopping through mobile phones, and the relationship to the behavioral intention of using mobile phones in shopping through its widespread applications. This position affects their intention to use technology were the attitude of a certain user and the lived environment effecting in a way or another users attitude which will drive his behavior intentions in order toward use of mobile shopping.

The united theory of acceptance and Utilization of technology (UTAUT) (vankatesh and his colleagues ,2003) offers an integrated view of user acceptance and the use of new technology systems, the model also reviews and compiled the eight models of the Commission, TPB, TAM, TAM2, IDT, incentive model, computer usage model

(MPCU) and social cognitive theory (SCT) in one model, UTAUT. The UTAUT model has four basic determinants of intention and uses expected performance, expected effort, social impact, and facilitative conditions, as well as four observers for four key factors such as gender, age, income, and the Internet experience (Venkatesh et al., 2003).

Other models illustrating the adoption of user behavior include model for implementation of new online information technology by (Cooper & Zmud 1990) and the success model of information systems by De Lone, Mclean (1992) and Motivational Model, a model that combines the PC/, 2012).

Literature with facts shows that the attitude toward using mobile shopping (ATT) as a dependent variable was statistically affected by the behavioral intention of using mobile shopping. Perceived are positively related to trends. Which means that whenever the attitude toward the mobile shopping system is easy, the more positive intention of use mobile shopping. This finding contradicts the findings of GOA (2005) that the ease factor did not statistically affect user trends

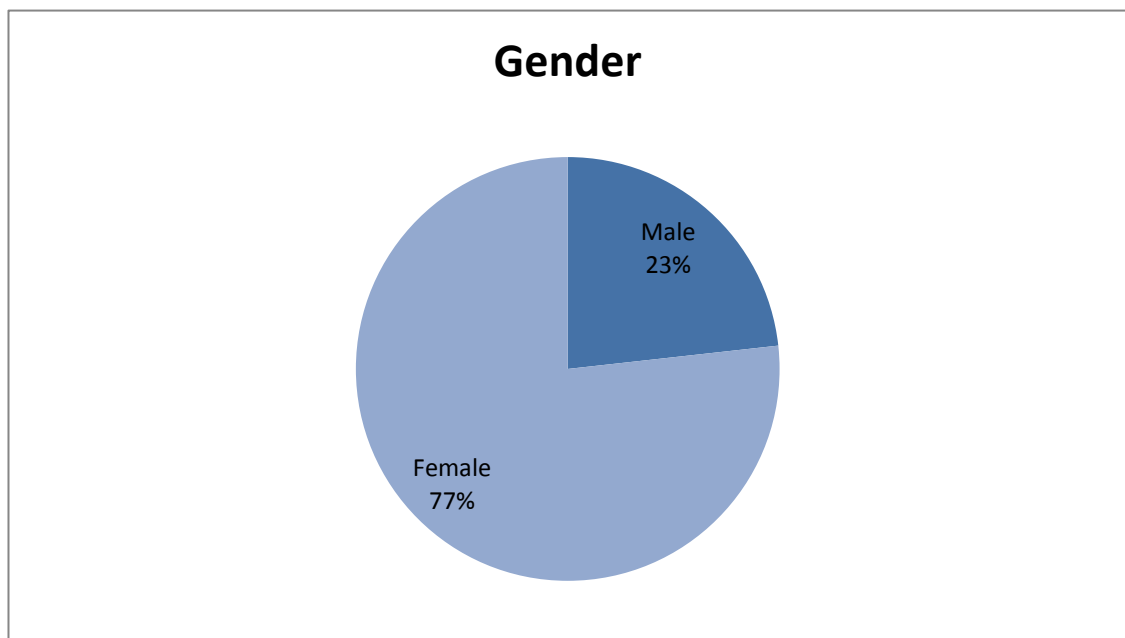
H<sub>6</sub>: there is a positive relationship between the attituded of use and the behavioral intention of using mobile shopping.

## 5. DATA ANALYSIS, DISCUSSIONS

### 5.1 Descriptive Statistics

#### 5.1.1 Gender

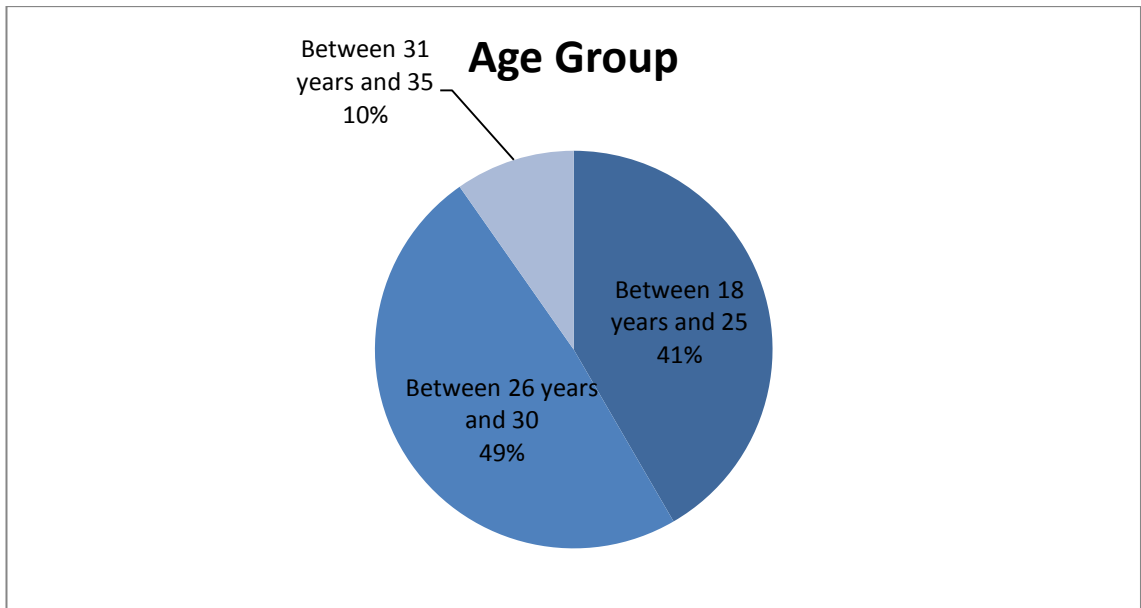
In this study and after distributing the questioner amount the student and the data has been collected the percentage respect to gander as 23% as Male and 77% as female out of the accepted sample tested of 160 students.



**Figure 5.1:** Gender

#### 5.1.2 Age group

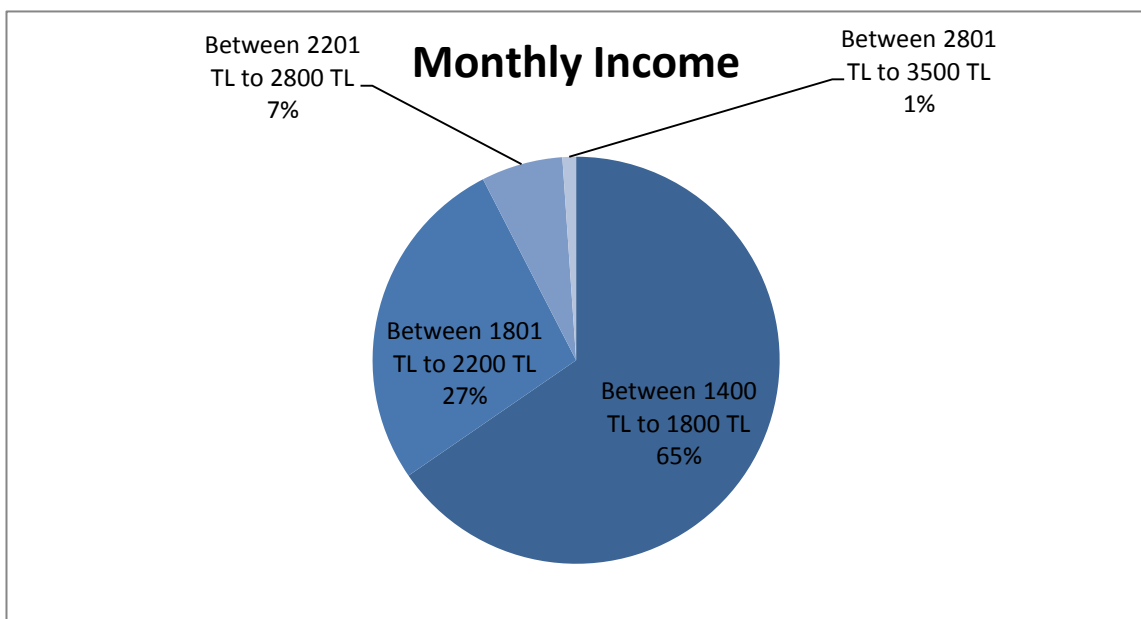
In this study and after distributing the questioner amount the student and the data has been collected the percentage respect to age group were resulted as 41% student between 18 years and 25 and 49% Between 26 years and 30 years then 10% between 31 years and 35 years.



**Figure 5.2:** Age Group

### 5.1.3 Monthly income

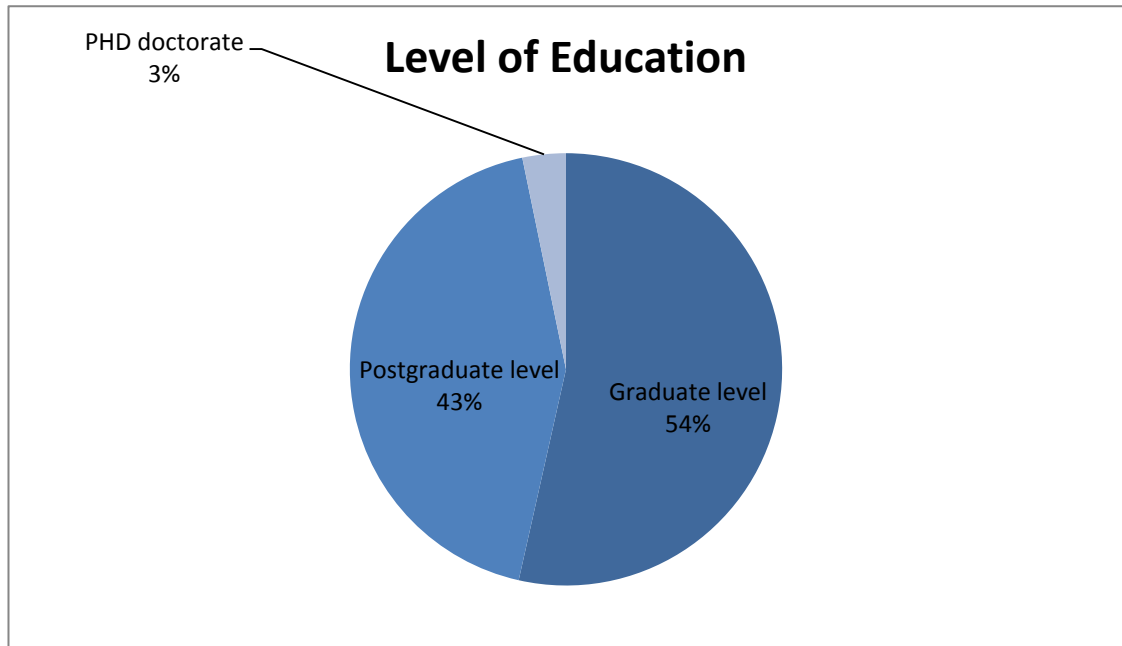
In this study and after distributing the questioner amount the student and the data has been collected the percentage respect to Monthly income were shown as 65% income from 1400 tl to 1800 tl, and 27% of student having income range form 1801 tl to 2200 tl and 7% of student from 2201 to 2800 tl and 1% from student getting from 2801 tl to 3500 tl monthly.



**Figure 5.3:** Monthly Income

#### 5.1.4 Level of education

In this study and after distributing the questioner amount the student and the data has been collected the percentage respect Level of education the results show that 54% of student in graduate level and 43% postgraduate level and 3% only were studing PHD doctorate.

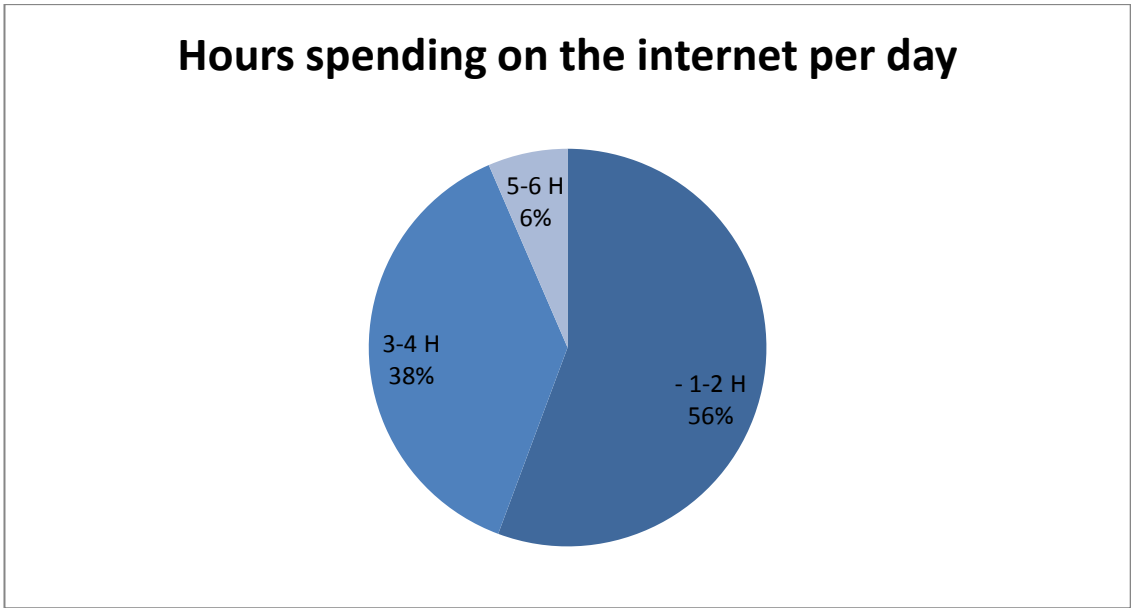


**Figure 5.4:** Level of education

#### 5.1.5 Hours spending on Internet

In this study and after distributing the questioner amount the student and the data has been collected the percentage respect the hours student spent on Internet daily the results were very important were shown how often student are surfing Internet and how its effecting their daily behavior the results as 56% spending from 1 to 2 hours daily usage and 38% from 3 to 4 hours daily and 6% from 4 to 6 hour as the chart below showing.

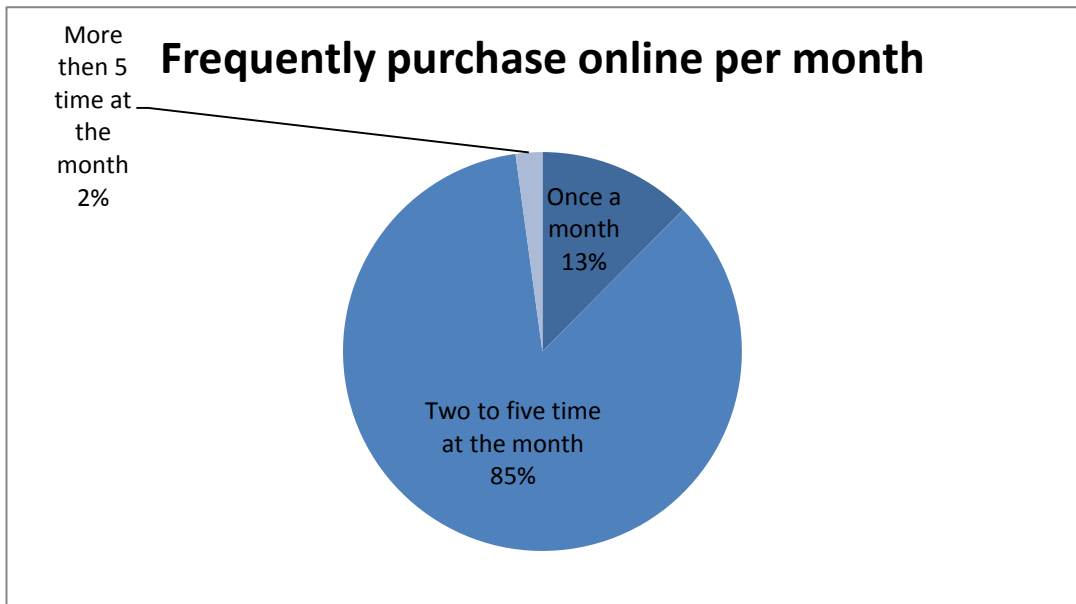




**Figure 5.5:** Hours spend on Internet Daily

#### 5.1.6 Frequent purchase online per month

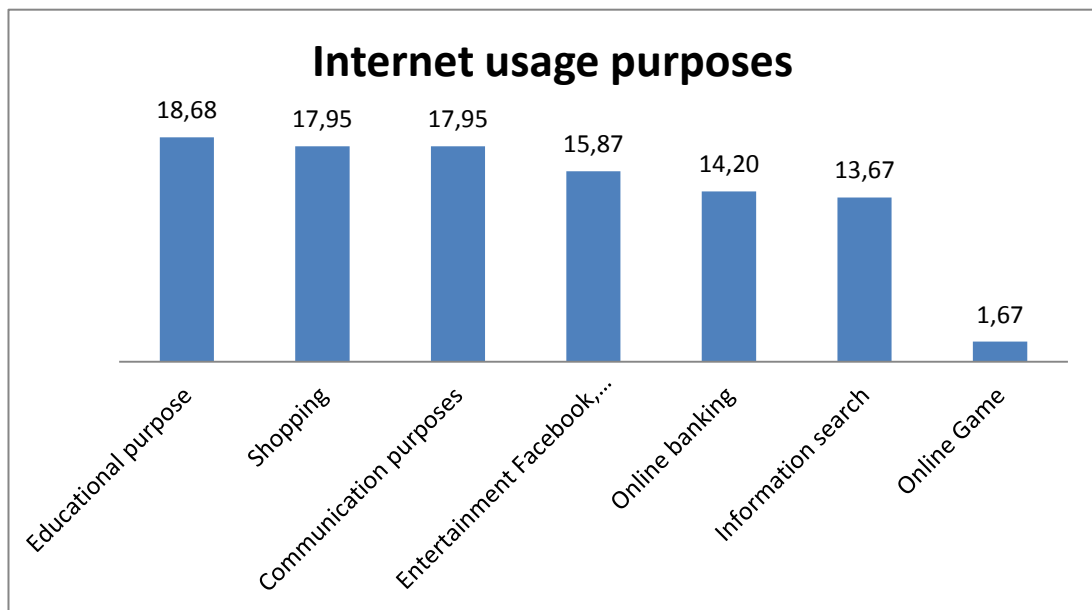
In this study and after distributing the questioner amount the student and the data has been collected the percentage respect the frequent purchases online per month were percentages show that 85% percent buy 2 to 5 times monthly and 13% of student bought once a time monthly and 2% more the five-time monthly.



**Figure 5.6:** Frequent purchase online monthly

### 5.1.7 Internet usage purposes

In this study and after distributing the questioner amount the student and the data has been collected the percentage respect Internet usage purposes result reflected in below chart as follow 18.68% student use for education purpose then 17.95 use for online shopping and communication purposes and 15.87 for entertainment and social media 14.20 using to accomplish banking procedure and 13.67 for information researches and 1.67 for online games .



**Figure 5.7:** Internet usage purposes

### 5.1.8 Reasons preferring online shopping

In this study and after distributing the questioner amount the student and the data has been collected the percentage respect to the reasons student prefer using online shopping were the result shown below as follow 25.25% student found it fun doing online shopping rather going to traditional market and 18.40% said that because security reason and 17.83% flexibility in prices and 17.69% were found it wide range of choices 17.55% saving time shopping online and the last 3.28% convenient and flexible .



**Figure 5.8:** reasons prefer online shopping

## 5.2 Inferential Statistics

In order to test proposed conceptual model of this study one of the multivariate statistical analysis techniques, namely, Structural equation modeling (SEM) was utilized in this study. SEM is the combination of factor analysis and multiple regression analysis, and it is used to analyze the structural relationship between measured variables and latent constructs.

- Normality Assessment

One of the assumption of SEM is that the data is multivariate normal. In this research normality assessment was carried out through kurtosis statistics. Rescaled standardized kurtosis index for each individual scale items was obtained in AMOS and given in the table below. Recommended threshold for rescaled kurtosis values is  $\pm 2$ . Below given normality table shows that all items except PEOU1 and PEOU3 have rescaled kurtosis values significantly less than 3. These two exceptions were not considered to be major problem for normality assumption. By considering the rescaled kurtosis data given below it can be concluded that data does not indicate violation of normality.

**Table 5.1:** Assessment of normality

Variable	min	max	skew	c.r.	kurtosis	c.r.
PU5	1.000	5.000	-.994	-5.085	1.102	2.819
INT4	1.000	5.000	-1.168	-5.974	1.854	4.743
INT3	1.000	5.000	-1.113	-5.695	1.330	3.402
INT2	1.000	5.000	-1.138	-5.822	1.578	4.036
INT1	1.000	5.000	-1.122	-5.740	.807	2.065
ATT3	1.000	5.000	-1.084	-5.545	.707	1.808
ATT2	1.000	5.000	-1.301	-6.655	2.471	6.320
ATT1	1.000	5.000	-1.019	-5.212	1.155	2.955
RISK4	1.000	5.000	.521	2.666	-.476	-1.217
RISK3	1.000	5.000	.640	3.274	-.186	-.475
RISK2	1.000	5.000	.500	2.557	-.336	-.860
RISK1	1.000	5.000	.344	1.761	-.389	-.995
PEOU4	1.000	5.000	-1.278	-6.535	1.841	4.709
PEOU3	1.000	5.000	-1.586	-8.113	3.391	8.674
PEOU2	1.000	5.000	-1.252	-6.404	2.252	5.760
PEOU1	1.000	5.000	-1.542	-7.887	3.704	9.474
PU4	1.000	5.000	-1.132	-5.792	1.160	2.966
PU3	1.000	5.000	-1.032	-5.281	.826	2.113
PU2	1.000	5.000	-1.185	-6.059	1.626	4.160
PU1	1.000	5.000	-1.022	-5.229	.503	1.285

- Multicollinearity Assessment

Multicollinearity is a state of very high intercorrelations among the independent variables of the proposed model. Multicollinearity can be assumed to cause serious problems if simple correlation between independent (i.e., predictor or regressor) variables exceeds 0.8 or 0.9 (Judge et al., 1982; Katz, 2006). Correlation between model factors are given in Table 2. Independent variables (i.e., predictors) of this study are perceived ease of use and perceived risk. Correlation between these two variables is well below the recommended threshold of 0.8. Therefore, multicollinearity is not considered to be a concern in this study.

**Table 5.2:** Correlations between factors

			Estimate
PU	<-->	PEOU	.562
PU	<-->	RISK	-.248
PU	<-->	ATTITUDE	.733
PU	<-->	INT	.738
PEOU	<-->	RISK	-.043
PEOU	<-->	ATTITUDE	.590
PEOU	<-->	INT	.581
RISK	<-->	ATTITUDE	-.299
RISK	<-->	INT	-.307
ATTITUDE	<-->	INT	.828

- Validity and Reliability Assessment

When doing CFA it is necessary to establish convergent validity, discriminant validity and reliability. Convergent validity and discriminant validity is a subtype of construct validity. Convergent validity refers to the degree to which two measures of constructs that theoretically should be related, are in fact related. To ensure the convergent validity, it is necessary to show that measures that should be related are actually related. To establish discriminant validity (also known as divergent validity), it is necessary to show that measurement that are not supposed to be related are in fact unrelated. There are a few measures that are useful for establishing validity and reliability in CFA analysis. These measures are namely, Composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Variance (MSV), and Average Shared Variance (ASV). Suggested threshold values for these measure were identified and suggested. In order to establish reliability CR value must be greater 0.7. For convergent validity AVE measure must be greater than 0.5 and finally for discriminant validity to hold MSV measure must be less than AVE (Hair, et al. 2010; Malhotra and Dash, 2011). Reliability and validity assessment (table 3) given below shows that CR values for all factors are above the suggested threshold of 0.7 and AVE values are also above the minimum acceptable point of 0.5. When it comes to discriminant validity MSV values of PU, PEOU and RISK are well below from AVE values of these factors. However MSV values of ATTITUDE and INTENTION is slightly higher than AVE values of these factors. Since this discrepancies are very small they are not considered to be a major problem for further analysis. By considering the measures of reliability

and validity it can be concluded that the constructs of the study model are reliably and valid.

**Table 5.3:** Reliability and validity assessment

CONSTRUCTS	CR	AVE	MSV
ATTITUDE	0.848	0.652	0.686
PU	0.922	0.703	0.545
PEOU	0.881	0.650	0.348
RISK	0.910	0.717	0.094
INT	0.876	0.642	0.686

- Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) is a multivariate statistical procedure which is used to test how well the measured variables represent the number of constructs. That is, this tool is used to test the factor structure of the dataset. CFA helps to confirm or reject the measurement theory. In this study Confirmatory Factor Analysis (CFA) was conducted in SPSS AMOS version 22.

The hypothesized model is given in Figure 1. This model was obtained after several re-specifications and re-estimations based on modification indices provided by SPSS AMOS version. The main objective of confirmatory factor analysis (CFA) is to assess the extent to which the observed variables are connected to their respective underlying latent factors. For that purpose, the strength of regression paths (i.e., factor loadings) from latent factors to their respective observed variables were analyzed. Regression weights given in Table 4 shows that all factor loading are highly significant with  $p < 0.001$ .

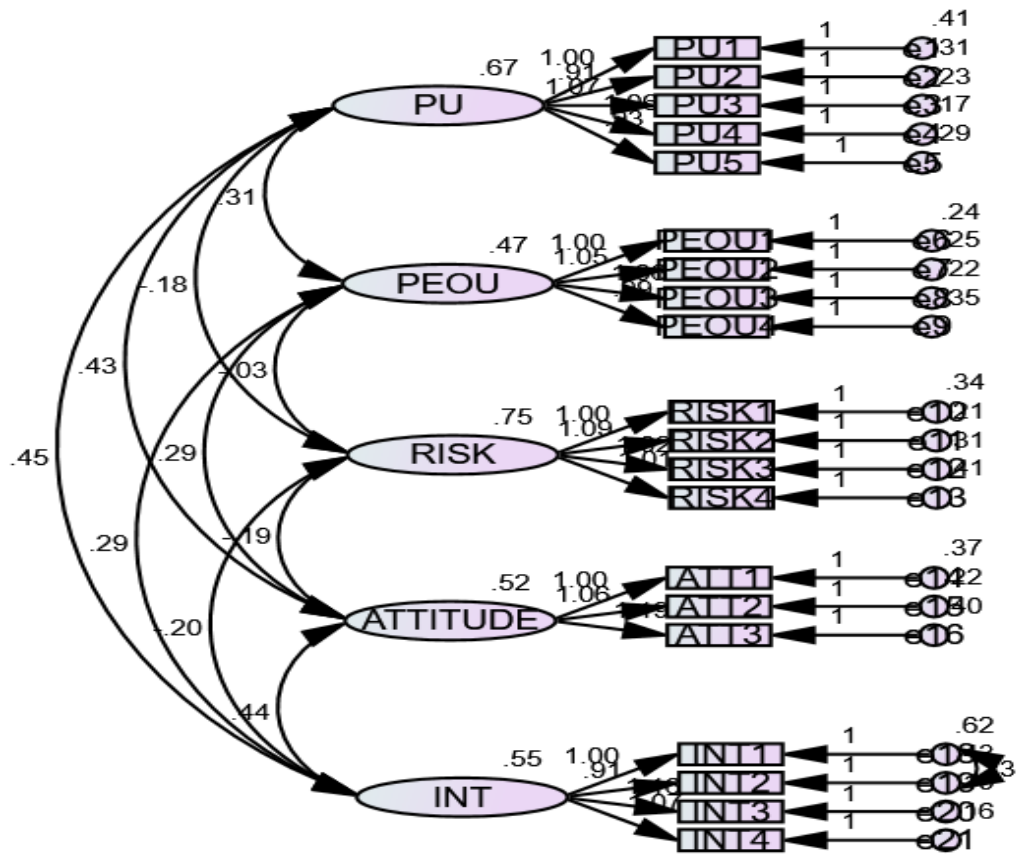


Figure 5.9: CFA Model

Table 5.4: CFA - Unstandardized Regression Weights

			Estimate	S.E.	C.R.	P
PU1	←-	PU	1.000			
PU2	←-	PU	.909	.083	11.006	***
PU3	←-	PU	1.074	.086	12.500	***
PU4	←-	PU	1.058	.082	12.906	***
PEOU1	←-	PEOU	1.000			
PEOU2	←-	PEOU	1.054	.093	11.285	***
PEOU3	←-	PEOU	1.060	.092	11.504	***
PEOU4	←-	PEOU	.989	.098	10.064	***
RISK1	←-	RISK	1.000			
RISK2	←-	RISK	1.089	.080	13.671	***
RISK3	←-	RISK	1.024	.081	12.570	***
RISK4	←-	RISK	1.014	.086	11.730	***
ATT1	←-	ATTITUDE	1.000			
ATT2	←-	ATTITUDE	1.061	.099	10.759	***
ATT3	←-	ATTITUDE	1.193	.118	10.124	***
INT1	←-	INT	1.000			
INT2	←-	INT	.909	.082	11.065	***
INT3	←-	INT	1.156	.116	9.939	***
INT4	←-	INT	1.075	.108	9.926	***
PU5	←-	PU	.928	.082	11.343	***

\*\*\*p<0.001

Standardized regression weights (i.e., coefficients) are given in Table 5 below. These coefficients are the estimates that have been standardized so that the variances of dependent and independent variables are 1. These standardized coefficients shows how many standard deviations a dependent variable will change, per standard deviation increase in the predictor variable.

**Table 5.5:** CFA - Standardized Regression Weights

			Estimate
PU1	<---	PU	.787
PU2	<---	PU	.799
PU3	<---	PU	.880
PU4	<---	PU	.902
PEOU1	<---	PEOU	.812
PEOU2	<---	PEOU	.823
PEOU3	<---	PEOU	.836
PEOU4	<---	PEOU	.751
RISK1	<---	RISK	.829
RISK2	<---	RISK	.901
RISK3	<---	RISK	.846
RISK4	<---	RISK	.807
ATT1	<---	ATTITUDE	.763
ATT2	<---	ATTITUDE	.853
ATT3	<---	ATTITUDE	.803
INT1	<---	INT	.685
INT2	<---	INT	.715
INT3	<---	INT	.892
INT4	<---	INT	.891
PU5	<---	PU	.818

There are several model fit metrics that can be used to determine goodness-of-fit proposed study model. Suggested threshold for these metrics (Hu and Bentler, 1999; Hair et al. 2010) and goodness-of-fit statistics of the proposed model is given in the table 6 below. By considering the metrics of cmin/df, CFI and RMSEA it can be concluded that proposed model is a well-fitting model.



**Table 5.6:** Model of fit metrics for CFA model

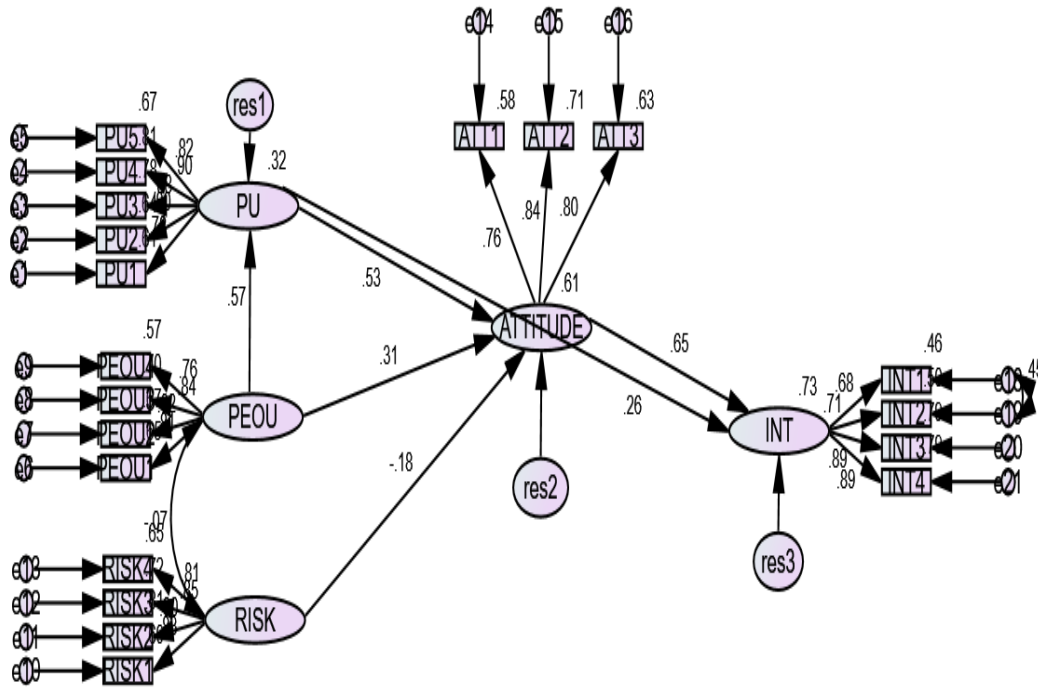
Measure	Threshold	Proposed Model	Remarks
cmin/df	<3 good; <5 permissible	1.813	good
CFI	>0.95 great; 0.90 traditional; >.80 permissible	0.944	great
GFI	>0.95	0.835	
AGFI	>0.80	0.782	close to threshold
RMSEA	<0.05 good; 0.05-0.10 moderate; >0.10 bad	0.072	moderate

- Structural Model (Path Analysis)

While measurement model (i.e., CFA) examines relationship between the latent variables and their measures. The structural model (i.e., path analysis) is the relationship between the latent variables of proposed model.

Structural model of the study is given in Figure 2. In this research standardized regression weights (i.e., beta coefficients) were utilized to discuss the results. These standardized coefficients are given on the arrows in the below given figure. Standardized coefficients refer to how many standard deviations a dependent variable will change, per standard deviation increase in the predictor variable.

Squared multiple correlation (i.e., coefficient of determination) for dependent variables Perceived Usefulness (PU), Attitude (ATT) and Intention (INT) are 0.321, 0.610 and 0.731 respectively. Squared multiple correlation is the proportion of the variance in the dependent variable that is predictable from the independent variables. For the proposed model squared multiple correlations implies that 32.1 percent of variation in PU, 61.0 percent variation in ATT and 73.1 percent variation in INT are explained by its predictor variables.



**Figure 5.10:** Structural Model

Model fit metrics for structural model is given in Table 7. By considering the metrics of cmin/df, CFI and RMSEA it can be concluded that proposed structural model is a well-fitting model.

**Table 5.7:** Model of fit metrics for Structural model

Measure	Threshold	Proposed Model	Remarks
cmin/df	<3 good; <5 permissible	1.853	good
CFI	>0.95 great; 0.90 traditional; >.80 permissible	0.940	Close to great
GFI	>0.95	0.830	
AGFI	>0.80	0.779	Close to threshold
RMSEA	<0.05 good; 0.05-0.10 moderate; >0.10 bad	0.074	moderate

Regression weights of structural model which is given in Table 8 highlights the following conclusion.

Perceived ease of use (PEOU) ( $\beta_{PEOU}=0.681$  SE=0.108,  $p<0.001$ ) of mobile shopping was found to have positive significant relationship with Perceived usefulness (PU) of mobile shopping

While perceived usefulness (PU) ( $\beta_{PU}=0.464$ ,  $SE=0.082$ ,  $p<0.001$ ) of mobile shopping and perceived ease of use (PEOU) ( $\beta_{PEOU}=0.320$ ,  $SE=0.091$ ,  $p<0.001$ ) of mobile shopping were found to have positive significant relationship with attitude (ATT) toward using mobile shopping, perceived risk (RISK) ( $\beta_{RISK}=-0.147$ ,  $SE=0.054$ ,  $p=0.006$ ) of online shopping were found to have negative significant relationship with attitude (ATT) toward using mobile shopping.

On the other side, perceived usefulness (PU) ( $\beta_{PU}=0.235$ ,  $SE=0.086$ ,  $p=0.006$ ) of mobile shopping and attitude (ATT) ( $\beta_{ATT}=0.670$ ,  $SE=0.122$ ,  $p<0.001$ ) toward mobile shopping were found to have positive significant relationship with behavioral intention (INT) of using mobile shopping.

**Table 5.8:** Structural model regression weights

			Estimate	S.E.	C.R.	P
PU	<---	PEOU	.681	.108	6.295	***
ATTITUDE	<---	PU	.464	.082	5.633	***
ATTITUDE	<---	PEOU	.320	.091	3.527	***
ATTITUDE	<---	RISK	-.147	.054	-2.736	.006
INT	<---	ATTITUDE	.670	.122	5.476	***
INT	<---	PU	.235	.086	2.739	.006

\*\*\*p<0.001

Summary of hypotheses testing results are given in the table 9 below. Table below shows hypothesis number, hypothesis description and remarks about its acceptance. SPSS AMOS 22 path analysis results showed that all six proposed study hypotheses were statistically significantly supported.

**Table 5.9:** Summary of hypotheses testing

Hypothesis	Description	Remarks
H1	There is a positive relationship between the ease of use of mobile shopping and the usefulness of mobile shopping	Supported
H2	There is a positive relationship between the usefulness of mobile shopping and the attitude toward using mobile shopping.	Supported
H3	There is a positive relationship between the ease of use of mobile shopping and the attitude toward using mobile shopping.	Supported
H4	There is a negative relationship between the risk of mobile shopping and the attitude toward using of using mobile shopping.	Supported
H5	There is a positive relationship between the perceived usefulness of mobile shopping and the behavioral intention of using mobile shopping.	Supported
H6	There is a positive relationship between the attitude toward using mobile shopping and the behavioral intention of using mobile shopping.	Supported

## **6. CONCLUSION AND RECOMMENDATION**

### **6.1 Conclusions and Discussions**

In this research it is found that when mobile shopping apps is ease to use then users will perceive it as useful. Therefore mobile shopping application developers should develop such mobile shopping interfaces which are ease to use from end user point of view. Findings of this research also showed that ease of use of mobile application directly and positively influence its perceived usefulness. By designing easy to use systems developers can form positive perceptions in the mind of consumers about usefulness of mobile shopping.

In this study it is also found that usefulness as one of the main factors that have strong positive impact on attitude toward using mobile shopping. Therefore, if mobile shopping providers make their system usefull they can form positive perceptions and attitudes in the mind of consumers toward using mobile shopping platform. Furthermore, usefulness of mobile shopping is founded to get direct and positive effect toward use of mobile shopping. Therefore, by offering useful mobile shopping platforms it is possible to establish positive attitudes in the mind of consumers toward such systems and at the same time it is possible to directly influence the adoption intention of consumers toward such platforms. Another important factor that founded to get a direct influence on behavior intention and attituded. This resulted in when consumers have favorable attitude toward mobile shopping platforms they will prefer to adopt and use it. This research showed that percieved risk of mobile shopping have significant negative impact on attitude toward using such platforms. This means that when consumers percieve such platforms risky they will form negative perceptions toward such system in their mind. Therefore mobile shopping providers should take into consideration critical factors that might negatively influence the attitudes of mobile shopping users and provide necessary solutions.

As demonstrated in the previous sections that the Mobile shopping is the most commonly used way that easily and simply informing the client and the outside audience the new coming product or services.

Regarding the Study, the researchers have presenting the mobile shopping as a most commonly used by costumers were the huge usage of the smart phone helps the companies generating high sales revenues. The new technology which is in our hand in this present time the smartphone and those technological items, online channels such as the social media , digital market ,Instagram and facebook all these channels that is part of the people Daily life which helps positively the Businesses in improving there sales revenues and presenting there brands effectively and in easier way influencing the behavior of the consumer and motivate the behavior intention of the costumes to attend more using the e-channels which let the mobile shopping in present time the effective and efficient way to improve businesses and gain a huge market share.

Many research studies have presented positive relationship between those variables perceived ease of use, usefulness and attitued the behavioral intention of the costumer tending to buy via Mobile shopping modulle, the study generlly is a quite comprehansive and adds to understanding the varios underlayling factors ,limited financial budget for wide sampling somewhat limits its generalizability .

The present research study was aimed to investigate the role of Mobile Shopping Adoption by foundation university students in Turkey , the major objective of this study were analize the behavior of the segment of the younge student located in some foundation university in İstanbul turkey and focus of the role of buying through mobile shopping and the effect on the costumer behavioral intention the other objective were analyze the reasons of usefulness and the ease of use and the risk that affect the behavioral intention and how its playing major role in buying decision through mobile shopping and go online rather go to physcail market. thus reseaecher aimed to compared the market in turkey with some conturies in the same area such as German market and with others showing that turkey is developing in very fast way tecnologiclly and in using smartphone to make money faster and for lomg time.

To test the relationship between those variables in addition to test the study hypothesis, CFA and SEM analysis were carried out using SPSS AMOS.

At the same time, in the scientific literature today there are not enough comprehensive studies devoted to the influence of mobile shopping on costumers behavior of student costumers, which is relevant both for sellers and consumers. In this regard, the study is important, and the topic chosen is relevant. According to the results of this study there are significant relationship between risk of and attitued toward using of the mobile shopping (independent variables) This means that when perceived risk of using mobile shopping increases, mobile shopping usage intention will be decreased.and positive relationship between perceiced ease of use and percevied usefullness with attitude toward behavioral intention of using mobile shopping (independent variables) to effect the student generation consumer's in foundation students buying behavior.

A positive aspect of mobile shopping that the turkish enviornment is a very good place to promote the use of mobile shopping because of the huge number of population in turkey most of this population from youngs and those people following and intresting in fashion and desire to change everyday there clothes and trendy watch and so on , the intention of traffic and less free time which increase the idea of buying online ,the salaries which inspire student and younge generation to search for a cheaper places to have lower price cheaper and high quality product and funny which they are found throug mobile shopping channels let the bussniesses switch to go online and sale there product with a good promotion without the need to have a store and inventory to save stoks in mobile shopping strategy were product gose from producers for end users in safe ,low price and funny packing .

## **6.2 Recommendations**

Set some strategies to improve the mobile shopping include the development and increase promoting for the advantage going online and buy from mobile shopping in turkey, improving the platform to have easier mobile shopping program let the users go easier to surf online and use mobile shopping , This process consists of several stages and these are the definition of the purposes

mobile shopping and, the more promotion for the E-commerce and the presenting the advantage of the mobile shopping the more gaining of users buying from the mobile shopping channels, as the high technology that arrived in present time mobile shopping strategy should achieve a high range of trusting marketshare and give the businesses a surprising opportunity to have a perfect revenue sales in low cost as the online channels linking the customers in every time anywhere and in low advertising cost to achieve a large number of customer especially the young student in universities because of the smartphone which get a place in our Daily life.

Apply Solution of the issues of forming or enhancing the image of mobile shopping branding goals, Attraction of new clients; the formation of customer loyalty programs, etc., this is, a long-term presence strategy is planned and perhaps the tasks of a local nature and realize a certain product by creating perfect ease to use platform program and medias.

The researchers shows the important of developing the mobile shopping system in way reduce the risk and secure the private information and banking account because when ever the risk increases the more dropping down in the intention toward more usage of mobile shopping and customer been afraid researches advice to pay more intention and invest money on developing all the technological side to achieve a high secured system that allow mobile shopping users to have safe surfing and relaxing shopping.

Set a proper budget to get sampling from all over the universities in turkey and get direct interview which might collect more accurate data that help researchers to study the market place very well and help businesses maximize their profit and gain more marketshare in addition to that extent the research area to cover all the cities and customer segments in Turkey in order to achieve more valuable information to develop the mobile shopping process in Turkey.



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## **APPENDICES**

APPENDIX A: Questionnaire (Turkish form)

### **ANA ARAŞTIRMA MADDELERİ**

#### **Demografik Sorular**

##### **Q1. Cinsiyet**

1. Erkek
2. Kadın

##### **Q2. Yaş**

1. 18 yaş ve 25 arasında
2. 25 ila 30 yaş arası
3. 30 yaş ve 35 arasında
4. 35 ve 40 yaşları arasında
5. 40 yaş ve üstü arasında

##### **Q3. Gelir Düzeyi**

1. 1400 TL'den 1800 TL'ye
2. 1800 TL'den 2200 TL'ye
3. 2200 TL'den 2800 TL'ye
4. 2800 TL'den 3500 TL'ye
5. 3500 TL ve yukarıya

##### **Q4. Eğitim Seviyesi**

1. Lisans üniversite okuyorum
2. Lisansüstü okuyorum
3. Doktora okuyorum

##### **S5-İnternette günde kaç saat geçiriyorsunuz?**

1. 1-2 Saat
2. 3-4 saat
3. 5-6 saat
- 4,6 saatten fazla
- 5,1 saatten az

##### **S6- Ne sıklıkla İnternette online şeyler satın alıyorsunuz?**

1. Ayda bir kez
2. Ayda iki kez veya beş kez
3. Bir ayda 5'ten fazla kez
4. Hiçbir zaman

**S7-İnterneti ne için kullanıyorsunuz? (fazla Uygun olanı seçin)**

- A. Eğlence Facebook, sosyal medya est.
- B. Eğitim amacı
- C. Alışveriş
- D. Bilgi araması
- E. İletişim amaçları
- F. Çevrimiçi bankacılık
- G. Online Oyun

**S8-Neden online alışverişi tercih edersiniz?**

- A. Zaman kazandırır
- B. Rahat ve esnek
- C. İnternette alışveriş yaparken eğlenceli
- D. Geniş seçenek yelpazesi
- E. Fiyatların esnekliği
- F. Güvenlik

**ANA ARAŞTIRMA MADDELERİ**

Çalışma faktörlerimiz için ana anket formu

Tüm anketti (Kesinlikle Katılmıyorum) ve (Kesinlikle Katılıyorum) arasında olacaktır.

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**Perceived Usefulness (PU)**

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**Q9. SORU**

**Kesinlikle  
katılmıyorum**  
**Katılmıyorum**  
**Kararsızım**  
**Katılıyorum**  
**Kesinlikle  
katılıyorum**

- 1- Mobil alışverişi kullanmak, çevrimiçi işlemlerde performansımı geliştirir
  - 2-Mobil alışverişi kullanmak online işlemlerde verimliliğimi artıracaktır.
  - 3- mobil alışveriş, çevrimiçi işlemlerde etkinliğimi artıracak
  - 4- Mobil alışverişi kullanımı, çevrimiçi işlemlere katılmamı kolaylaştırıyor
  - 5-Mobil alışverişi kullanmanın online işlemler gerçekleştirmemde çok faydalı olduğunu düşünüyorum.
-

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**Perceived Ease of Use (PEOU)**

**Q10. SORU**

**Kesinlikle  
katılmıyorum**  
**Katılmıyorum**  
**Kararsızım**  
**Katılıyorum**  
**Kesinlikle  
katılıyorum**

- 
- 1-Mobil alışverişi kullanmayı öğrenmek çok kolay.  
2-Mobil alışveriş ile istediğimi bulabiliyorum.  
3-Mobil alışverişi kullanmanın kolay olduğunu düşünüyorum.  
4- Mobil alışveriş ile etkileşim açıktır ve anlaşılabilir

**Risk (RISK)**

**Q11. SORU**

**Kesinlikle  
katılmıyorum**  
**Katılmıyorum**  
**Kararsızım**  
**Katılıyorum**  
**Kesinlikle  
katılıyorum**

- 1- Parasal işlemlerde mobil alışverişi kullanmanın potansiyel risk olduğunu düşünüyorum  
2- Ürün alışverişlerinde Mobil alışverişi kullanmanın potansiyel risk olduğunu düşünüyorum  
3- Mobil hizmetlerin mobil hizmetlerde kullanılmasının potansiyel riskler olduğunu düşünüyorum  
4- Mobil alışverişi kullanmanın gizliliğimi riske attığını düşünüyorum
-



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## Attitude Toward Using (AU)

### Q12. SORU

Kesinlikle katılmıyorum  
(Çok az)  
Katılmıyorum  
(Az)  
Kararsızım  
Katılıyorum  
(Fazla)  
Kesinlikle katılıyorum  
(Çok az)

- 1-Online alışverişlerde ne sıklıkla mobil alışverişi kullanıyorsunuz?
- 2-Mobil alışveriş iyi bir fikirdir
- 3-Mobil alışveriş, akıllıca bir fikirdir
- 4- Online mobil alışveriş günümüzde önemli olduğunu düşünüyorum

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## Behavioral Intention of Using Online Channels (B)

### Q13. SORU

Kesinlikle katılmıyorum  
Katılmıyorum  
Kararsızım  
Katılıyorum  
Kesinlikle katılıyorum

- 1- bir mobil alışveriş sistemi kullanıcısı olmayı düşünüyorum.
  - 2-Mobil alışveriş sistemini kısa bir süre tekrar ziyaret etmeyi düşünüyorum.
  - 3-Gelecekte mobil alışveriş uygulamasını kullanacağımı düşünüyorum
  - 4-Mobil alışveriş uygulamasını gelecekte kullanmayı planlıyorum
-

## MAIN SURVEY ITEMS

### Questioner Reference and Sources

Code	Each factor Source Questions	Source
(PU)	Perceived Usefulness	*Jen-Ching Wang- July 2004.
(PEOU)	Perceived Ease of Use	* venkatesh and Davis 2000 *Jen-Ching Wang- July 2004.
(RISK)	Risk	*Jen-Ching Wang- July 2004.
(AU)	Attitude Toward Using	*Taylor & Todd, 1995
(B)	Behavioral Intention of Using Online Channels	*Sung Youl Park.2009 *venkatesh and Davis 2000 * W. Boonsiritomachai, K. Pitchayadejanant- 2017

## Appendix B

Evrak Tarih ve Sayısı: 28/06/2018-3631



T.C.  
İSTANBUL AYDIN ÜNİVERSİTESİ REKTÖRLÜĞÜ  
Sosyal Bilimler Enstitüsü Müdürlüğü

Sayı : 88083623-044-3631  
Konu : MOHAMAD ALLA NASSIF'ın Etik  
Onay Hk.

28/06/2018

Sayın MOHAMAD ALLA NASSIF

Enstitümüz Y1512.130002 numaralı İşletme (İngilizce) Anabilim Dalı İşletme Yönetimi (İngilizce) tezli yüksek lisans programı öğrencilerinden MOHAMAD ALLA NASSIF'ın "MOBILE SHOPPING ADOPTION BY FOUNDATION UNIVERSITY STUDENTS IN TURKEY: AN APPLICATION OF TECHNOLOGY ACCEPTANCE MODAL TAM" adlı tez çalışması gereği ekte yer alan anketleri 07.06.2018 tarihli ve 2018/15 sayılı İstanbul Aydın Üniversitesi Etik Komisyon Kararı ile etik olarak uygun olduğuna karar verilmiştir.

Bilgilerinizi rica ederim.

Prof. Dr. Özet KANBURÇLU



Evrakı Doğrulamak İçin : <https://evrakdogrula.aydin.edu.tr/enVision.Dogrula/BelgeDogrulama.aspx?V=BE49P6JZ>

Adres:Beşyol Mah. İnönü Cad. No:38 Sefaköy , 34295 Küçükçekmece / İSTANBUL  
Telefon:444 1 428  
Elektronik Ağ:<http://www.aydin.edu.tr/>

Bilgi için: NESLİHAN KUBAL  
Unvanı: Enstitü Sekreteri



## RESUME

### **Mohamad Alla Nassif**

Istanbul. Turkey

32 years old

allaa.nassif@gmail.com



### **Personal Information**

Place and Date of Birth: Saudi Arabia 1986

Gender: Male

Marital Status: Single

Hobbies professional in squash and riding bicycle.

### **Practical Experiences**

- **Privet Work place-** Privet Company for real estate and the official owner for the company works in construction and general trade (Istanbul) from 2014- Tell now am working in my privet company that has made very good sales and convince investors to invest their money in Turkey.
- **Real estate Company (Istanbul turkey) 2014-2015**

Also one and half year marketer and sales consultant for international client

- **Ağaoğlu Şirket group (Istanbul turkey) 2013-2014**

One of the largest companies in construction and real estate in Istanbul For one year as international sales consultant and marketer

- **Syria International Islamic Bank (Syria Damascus )2010 -2012**
- Am working in Syria International Islamic Bank in Head office building in Electronic services center,
- (VISA Card, ATM cards and all its cycle with coordinate with CSC Lebanon Company for one year.
- ATM machines controller unit supervisor, Guide branches and coordinate with CSC-ATM Lebanon and IT department.

- Also, I did attend 170 hours of banking science course in the bank; I had till now Two years banking experience.
- Previously work in ALGEREWAITE GROUP / LG Company in Research and Development Department. Good Way in Convincing Customer, Experience in solving problems and analytical thinking and ability to build good Relations with customers.

### **Academic Education**

- Studying Master of business administration from ISTANBUL AYDIN UNIVERSITY to be graduate at approximately in 12-2018 in English
- B.A, Business Administration degree, Specialized in Management from Arab International University (privet), Syria, Damascus, with Grade 2.60 AGPA also in English.
- (PMP) certificate Project Management professional.
- CFIS: Certified in Financial Banking Sciences from (Syria International Islamic Bank)

### **Professional Certificates**

- Flexible, Details oriented, Team Player, Accurate, Risk Controller, Quality management skills, ISO, Organized and Good listener,
- High-Quality performer, Customer relationship management skills and public relation skills.
- High capabilities in convincing customers and implement CSR to conduct corporate social responsibility well presenter.

### **Languages**

- Arabic: Mother Language
- English: very good reading, writing, and conversation
- Turkish very good reading, writing, and conversation

### **Computer Skills**

- Qualified in Microsoft Office (Word, Excel, Access, PowerPoint)
- Internet + Outlook
- Programs related statistics SPSS
- Project management program

- Feasibility analysis program.
- IMAL: Integrated Banking Investment System
- A 2 A: middleware (E-channels program)
- Proview 4 ATM monitor program and management system.