

**T.C. KOCAELİ ÜNİVERSİTESİ  
SOSYAL BİLİMLER ENSTİTÜSÜ  
İŞLETME ANABİLİM DALI  
ÜRETİM YÖNETİMİ VE PAZARLAMA BİLİM DALI**

**FACTORS AFFECTING INTENTIONS AND ATTITUDES OF  
AFGHAN AND TURKISH CONSUMERS TOWARDS MOBILE  
MARKETING APPLICATIONS**

**YÜKSEK LİSANS TEZİ**

**MOHAMMAD KARIM AZIMI**

**KOCAELİ 2021**

**T.C. KOCAELİ ÜNİVERSİTESİ  
SOSYAL BİLİMLER ENSTİTÜSÜ  
İŞLETME ANABİLİM DALI  
ÜRETİM YÖNETİMİ VE PAZARLAMA BİLİM DALI**

**FACTORS AFFECTING INTENTIONS AND ATTITUDES OF  
AFGHAN AND TURKISH CONSUMERS TOWARDS MOBILE  
MARKETING APPLICATIONS**

**YÜKSEK LİSANS TEZİ**

**MOHAMMAD KARIM AZIMI**

**Prof. Dr. Ümit ALNIAÇIK**

**Tezin Kabul Edildiği Enstitü Yönetim Kurulu Karar ve No:  
23.06.2021/15**

**KOCAELİ 2021**

## **ACKNOWLEDGENTS**

In this part; I would like to express my gratitude and appreciation to my supervisor "Prof. Dr. Ümit ALNIAÇIK" who helped me a lot in preparing and completing this dissertation with his sincere and constant efforts. I wish him success and eternal immortality from the court of God.

Many thanks to the esteemed presidency of the YTB, Faculty of Business Administration, Kocaeli University and our honorable and distinguished professors who accompanied us during the study period with the utmost effort to learn knowledge.

Finally, I would like to express my gratitude to my dear and kind family, particularly to my kind father "Dr. Mohammad Naeem AZIMI" who accompanied me patiently in all stages of my education and made a lot of efforts. Because they were the ones who showed me the way to complete servitude and the clear way of knowledge, and they were my greatest encouragement and support to step forward and progress in this way.

## CONTENTS

ACKNOWLEDGENTS.....	I
CONTENTS.....	II
ÖZET.....	VI
ABSTRACT.....	VII
ABBREVIATION(S).....	VIII
LIST OF TABLES.....	X
FIGURE(S).....	XI
INTRODUCTION.....	1

### CHAPTER 1

1. MOBILE MARKETING.....	3
1.1. THE EVOLUTION OF MOBILE MARKETING.....	3
1.2. DEFINITION OF MOBILE MARKETING.....	5
1.3. MOBILE MARKETING SPECIFICATIONS.....	6
1.4. DIFFERENCES BETWEEN MOBILE MARKETING AND TRADITIONAL MARKETING .....	9
1.5. THE ENVIRONMENT OF MOBILE MARKETING .....	10
1.6. CLASSIFICATION OF MOBILE MARKETING .....	11
1.7. MOBILE MARKETING STRATEGIES.....	14
1.8. MOBILE MARKETING OBJECTIVES.....	16
1.9. THE ADVANTAGES AND DISADVANTAGES OF MOBILE MARKETING .....	18
1.10. THE IMPORTANCE OF MOBILE MARKETING .....	21
1.11. ETHICAL AND LEGAL REGULATIONS IN MOBILE MARKETING .....	22
1.12. THE FUTURE OF MOBILE MARKETING.....	24

### CHAPTER 2

2. MOBILE APPLICATIONS.....	26
-----------------------------	----

<b>2.1. MOBILE MARKETING APPLICATIONS .....</b>	<b>26</b>
<b>2.1.1. Mobile Commerce.....</b>	<b>27</b>
<b>2.1.2. Mobile Internet.....</b>	<b>29</b>
<b>2.1.3. Mobile Banking.....</b>	<b>29</b>
<b>2.1.4. Mobile Shopping.....</b>	<b>30</b>
<b>2.1.4.1. Mobile Shopping Lifecycle.....</b>	<b>31</b>
<b>2.1.5. Mobile Payments.....</b>	<b>32</b>
<b>2.1.6. QR Code (Quick Response Codes) .....</b>	<b>33</b>
<b>2.1.7. Mobile Coupon.....</b>	<b>35</b>
<b>2.1.8. Mobile Entertainment.....</b>	<b>36</b>
<b>2.1.9. Location-Based Mobile Services.....</b>	<b>37</b>
<b>2.2. HOW MOBILE MARKETING IS USED.....</b>	<b>38</b>
<b>2.2.1. GSM (Global System for Mobile Communication) .....</b>	<b>38</b>
<b>2.2.2. SMS (Short Message Service) .....</b>	<b>39</b>
<b>2.2.3. MMS (Multimedia Messaging Service) .....</b>	<b>41</b>
<b>2.2.4. WAP (Wireless Application Protocol) .....</b>	<b>42</b>
<b>2.2.5. Bluetooth.....</b>	<b>43</b>
<b>2.2.6. GPS (Global Positioning System) .....</b>	<b>45</b>
<b>2.2.7. GPRS (General Packet Radio Service).....</b>	<b>45</b>
<b>2.2.8. RFID (Radio Frequency Identification) .....</b>	<b>46</b>
<b>2.2.9. WCDMA (Wideband Code Division Multiple Access).....</b>	<b>46</b>
<b>2.2.10. UMTS (Universal Mobile Telecommunications System).....</b>	<b>47</b>
<b>CHAPTER 3</b>	
<b>3. MOBILE MARKETING ACCEPTANCE MODELS.....</b>	<b>48</b>
<b>3.1. THEORY OF REASONED ACTION (TRA).....</b>	<b>48</b>
<b>3.2. THEORY OF PLANNED BEHAVIOR (TPB).....</b>	<b>51</b>
<b>3.3. TECHNOLOGY READINESS INDEX (TRI).....</b>	<b>54</b>

<b>3.4. TECHNOLOGY ACCEPTANCE MODEL (TAM).....</b>	<b>56</b>
<b>3.4.1. Extension of the Technology Acceptance Model.....</b>	<b>58</b>
<b>3.4.2. Integrated Model of Technology Acceptance (TAM3) .....</b>	<b>59</b>
<b>3.5. UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT).....</b>	<b>61</b>

#### **CHAPTER 4**

<b>4. CULTURAL DIFFERENCES AND MOBILE MARKETING.....</b>	<b>63</b>
<b>4.1. DEFINITION OF CULTURE .....</b>	<b>63</b>
<b>4.2. HOFSTEDE’S CULTURAL DIMENTIONS.....</b>	<b>64</b>
<b>4.2.1. Power Distance.....</b>	<b>66</b>
<b>4.2.2. Uncertainty Avoidance.....</b>	<b>66</b>
<b>4.2.3. Individualism and Collectivism.....</b>	<b>66</b>
<b>4.2.4. Long-Term Orientation.....</b>	<b>67</b>
<b>4.2.5. Masculinity.....</b>	<b>67</b>
<b>4.3. HOFSTEDE’S COUNTRY COMPARISONS.....</b>	<b>67</b>

#### **CHAPTER 5**

<b>5. RESEARCH METHODS.....</b>	<b>71</b>
<b>5.1. RESEARCH BACKGROUND.....</b>	<b>71</b>
<b>5.2. RESEARCH OBJECTIVES.....</b>	<b>73</b>
<b>5.3. STATEMENT OF THE PROBLEM AND SIGNIFICANCE OF THE STUDY.....</b>	<b>74</b>
<b>5.4. DELIMITATIONS OF THE RESEARCH.....</b>	<b>75</b>
<b>5.5. RESEARCH POPULATION AND SAMPLING.....</b>	<b>75</b>
<b>5.6. QUESTIONNAIRE DEVELOPMENT AND SCALES.....</b>	<b>76</b>
<b>5.7. METHODOLOGY OF THE RESEARCH .....</b>	<b>80</b>
<b>5.7.1. Research Scale Items.....</b>	<b>80</b>
<b>5.7.2. Data Collection Process.....</b>	<b>81</b>

<b>5.7.3. Procedure and Analytic Plan.....</b>	<b>81</b>
<b>5.7.4. Proposed Research Model.....</b>	<b>82</b>
<b>5.7.5. Research Hypotheses.....</b>	<b>82</b>

## **CHAPTER 6**

<b>6. DATA ANALYSES AND FINDINGS.....</b>	<b>86</b>
<b>6.1. RESPONDENT DEMOGRAPHICS.....</b>	<b>86</b>
<b>6.2. VALIDITY AND RELIABILITY OF THE SCALES.....</b>	<b>86</b>
<b>6.2.1. Confirmatory Factor Analysis (CFA).....</b>	<b>88</b>
<b>6.2.2. Model Fit.....</b>	<b>91</b>
<b>6.2.3. Estimation of Reliability and Validity.....</b>	<b>92</b>
<b>6.3. DESCRIPTIVE STATISTICS.....</b>	<b>94</b>
<b>6.4. FREQUENCY OF SHOPPING VIA SMARTPHONES .....</b>	<b>103</b>
<b>6.5. FREQUENCY OF MOBILE APPS IN SHOPPING.....</b>	<b>104</b>
<b>6.6. THE STRUCTURAL MODEL.....</b>	<b>105</b>
<b>6.7. HYPOTHESES TESTS.....</b>	<b>108</b>

## **CHAPTER 7**

<b>DISCUSSION AND CONCLUSION .....</b>	<b>111</b>
<b>IMPLICATIONS.....</b>	<b>115</b>
<b>LIMITATIONS AND FUTURE DIRECTIONS.....</b>	<b>116</b>
<b>REFERENCES.....</b>	<b>117</b>
<b>APPENDICES.....</b>	<b>126</b>
<b>APPENDIX A: QUESTIONNAIRE FORM.....</b>	<b>126</b>
<b>RESUME.....</b>	<b>131</b>

# AFGAN VE TÜRK TÜKETİCİLERİN MOBİL PAZARLAMA UYGULAMALARINA YÖNELİK KULLANMA NİYETLERİ VE TUTUMLARINI ETKİLEYEN FAKTÖRLER

## Özet

Bu çalışma, Afgan ve Türk tüketicilerin mobil pazarlama uygulamalarını kullanma niyet ve tutumlarını etkileyen faktörleri Teknoloji Kabul Modeli (TAM) çerçevesinde incelemek amacıyla gerçekleştirilmiştir. Algılanan Risk, Teknoloji Hazır Olma İndeksi (TRI) ve Kültürel Değerler (CVSCALE), dışsal değişkenler olarak modele dahil edilmiştir. Oluşturulan kavramsal model ve hipotezler, yaklaşık 300 Türk ve 400 Afgan tüketicinin katıldığı ve anket yönetiminin kullanıldığı nicel bir araştırma ile test edilmiştir. Bu çerçevede, belirlenen öncül değişkenler ile mobil pazarlama uygulamalarına yönelik niyet ve tutumları etkileyen faktörler arasındaki ilişkiler analiz edilmiştir. Verilerin analizinde AMOS yazılımı kullanılarak yapısal eşitlik modellemesi (SEM) uygulanmıştır. Buna ilaveten, çalışmada iki ülke arasındaki farklılıklar çoklu grup analizi kullanılarak incelenmiştir. Çoklu grup analizi sonucunda, iki ülke tüketicileri arasında teknoloji hazır olma indeksi ve mobil pazarlama teknolojilerini kullanmaya yönelik tutum ve niyetler arasında bazı önemli farklılıklar olduğu belirlenmiştir.

**Anahtar Kelimeler:** Mobil Pazarlama, Mobil Pazarlama Uygulamalar, Teknoloji Kabul Modeli, Teknoloji Hazırlık İndeksi, Kültürel Değerler.



# **FACTORS AFFECTING INTENTIONS AND ATTITUDES OF AFGHAN AND TURKISH CONSUMERS TOWARDS MOBILE MARKETING APPLICATIONS**

## **Abstract**

This study was conducted to investigate the factors that affect the intentions and attitudes of Afghan and Turkish consumers to use mobile marketing applications based on Technology Acceptance Model (TAM), Perceived Risk, Technology Readiness Index (TRI), and Cultural Values Scale (CVSCALE) considered as external variables to the TAM. The proposed model is tested on two different samples (300 Turkish and 400 Afghan). Data is collected by an online survey. Effects of the external variables on respondents' attitudes and intentions of adopting mobile marketing applications are examined within the framework of research hypotheses. Structural equation modeling (SEM), utilizing AMOS software was used to test research hypotheses. Moreover, this study investigates the differences between two countries, utilizing multi-group analysis. Multi-group path analysis revealed significant differences between Turkish and Afghan respondents regarding technology readiness, attitudes towards, and intentions to use mobile marketing applications.

**Key words:** Mobile Marketing, Mobile Marketing Applications, Technology Acceptance Model, Technology Readiness Index, Cultural Values.

## **ABBREVIATION(S)**

**AMA: American Marketing Association**

**AMOS: Analysis of moment structures**

**ATM: Automated Teller Machines**

**DMA: Direct Marketing Association**

**ECT: Expectation Confirmation Theory**

**EDGE: Enhanced Data rates for GSM Evolution**

**ETSI: European Telecommunications Standards Institute**

**E-marketing: Electronic marketing**

**E-commerce: Electronic commerce**

**GSM: Global System for Mobile Communications**

**GPS: Global Positioning System**

**GPRS: General Packet Radio Service**

**IP: Internet Protocol**

**LBS: Location Based (Mobile) Services**

**LTE: Long Term Evolution**

**MMS: Multimedia Messaging Service**

**M-Shopping: Mobile shopping**

**NFC: Near Field Communication**

**QR-Code: Quick Response**

**RFID: Radio Frequency Identification Tags**

**SPSS: Statistical Package for the Social Sciences**

**SMS: Short Messaging Service**

**TAM: Technology Acceptance Model**

**TRI: Technology Readiness Index**

**TRA: Theory of Reasoned Action**

**TPB: Theory of Planned Behavior**

**UMTS: Universal Mobile Telecommunications System**

**UTAUT: Unified Theory of Acceptance and use of Technology**

**WAP: Wireless Application Protocol**

**WCDMA: Wideband Code Division Multiple Access**



## LIST OF TABLES

<b>TABLE 5.1. Research Scales.....</b>	<b>76</b>
<b>TABLE 6.1. Demographic Features.....</b>	<b>86</b>
<b>TABLE 6.2. KMO and Bartlett's Test Results.....</b>	<b>88</b>
<b>TABLE 6.3. Factor Loading.....</b>	<b>89</b>
<b>TABLE 6.4. Model Fit Summary.....</b>	<b>92</b>
<b>TABLE 6.5. Quality of Validity &amp; Reliability.....</b>	<b>92</b>
<b>TABLE 6.6. Descriptive Statistics of Technology Readiness Index.....</b>	<b>95</b>
<b>TABLE 6.7. T-test Regarding Afghan-Turkish Samples for TRI Forming Constructs.....</b>	<b>96</b>
<b>TABLE 6.8. Descriptive Statistics of Perceived Risk.....</b>	<b>97</b>
<b>TABLE 6.9. Independent Samples T-Test for Perceives Risk.....</b>	<b>97</b>
<b>TABLE 6.10. Descriptive Statistics of Technology Acceptance Model.....</b>	<b>98</b>
<b>TABLE 6.11. Independent samples T-test for Technology Acceptance Model...99</b>	<b>99</b>
<b>TABLE 6.12. Descriptive Statistics of Culture Value Scales.....</b>	<b>100</b>
<b>TABLE 6.13. Independent samples T-Test for Culture Value Scales.....</b>	<b>101</b>
<b>TABLE 6.14. Frequency of Shopping Via Smartphones.....</b>	<b>103</b>
<b>TABLE 6.15. Frequency of Mobile Apps in Shopping.....</b>	<b>104</b>
<b>TABLE 6.16. Turkish-Afghan Samples Differences.....</b>	<b>107</b>
<b>TABLE 6.17. Summary of Hypotheses Testing Results.....</b>	<b>108</b>

**FIGURE(S)**

**FIGURE 1.1: Mobile Marketing Ecosystem.....11**

**FIGURE 1.2: Mobile Marketing Classification Criteria.....14**

**FIGURE 2.1: Mobile Shopping Lifecycle.....32**

**FIGURE 2.2: QR Code.....35**

**FIGURE 2.3: Location Based Marketing.....38**

**FIGURE 2.4: Bluetooth Wireless Proximity Based Marketing.....44**

**FIGURE 3.1: Theory of Reasoned Action (TRA) .....49**

**FIGURE 3.2: Theory of Planned Behavior.....51**

**FIGURE 3.3: Technology Readiness Index (TRI) .....55**

**FIGURE 3.4: Technology Acceptance Model.....57**

**FIGURE 3.5: Extension of the Technology Acceptance Model (TAM2) .....58**

**FIGURE 3.6: Integrated Model of Technology Acceptance (TAM3) .....60**

**FIGURE 3.7: Unified Theory of Acceptance and Use of Technology (UTAUT)...62**

**FIGURE 4.1: Turkish Culture 6-D Model.....68**

**FIGURE 4.2. Afghani Culture Model.....70**

**FIGURE 5.1. Research Model.....82**

**FIGURE 6.1. Turkish Sample Structural Model (1).....105**

**FIGURE 6.2. Afghanistan Sample Structural Model (1).....106**

**FIGURE 6.3. Turkish Sample Structural Model (2).....106**

**FIGURE 6.4. Afghanistan Sample Structural Model (2).....107**

## **INTRODUCTION**

The advent of technology and the conveniences of it have brought about a change in life that encompasses the whole global atmosphere of the whole world. Today, with the growth and diversity of technology in all areas of humanity, including information, communication, services, transportation, entertainment is transforming from its traditional form to its modern form.

Communication is the Most Important Issue in Today's World Everybody is trying to communicate and improve communication, which in turn has led to the growth and development of communication tools such as mobile phones. With the advent of smartphones and tablets, the ease of access for consumers and manufacturers has changed a lot of things and has driven consumers and sellers to make online transactions. The use of mobile communication technologies has led to the creation of a new channel called mobile marketing. Mobile marketing enables marketers to easily reach consumers' needs and to continue their marketing campaigns seamlessly, that this situation has created new business challenges (Öztaş, 2015).

Mobile marketing has made remarkable progress despite being a fledgling idea, as it has become an effective way for retailers and consumers to do business. Due to the sensitivity of the topic in this thesis, it examines the factors influencing the intentions and attitudes of Afghan and Turkish consumers towards mobile marketing applications.

The study consists of seven parts. The first chapter focus on the basic concept of mobile marketing such as evolution of mobile marketing, definition, specifications, classification, environment, strategies, objectives, importance of mobile shopping, future of mobile shopping, advantages and disadvantages of mobile marketing, differences between mobile marketing and traditional marketing and ethical and legal regulations in mobile marketing.

The second chapter provides a review of mobile marketing applications and how mobile applications are used, under the heading of mobile commerce, mobile internet, mobile banking, mobile shopping, mobile payments, QR code, mobile

coupon, mobile entertainment, location-based mobile services, GSM, SMS, MMS and etc.

The third chapter explains the theories behind mobile shopping such as the theory of reasoned action, the theory of Planned Behavior, technology Readiness Index, technology acceptance model.

The fourth chapter explains the culture, cultural differences that focused on Hofstede's cultural dimensions (Power distance, Uncertainty avoidance, Individualism and Collectivism, Long-term orientation, Masculinity).

The fifth chapter presents the methodology of the study and the empirical evaluation of the model.

The sixth chapter presents the findings of the research along with the validity and reliability of the data which is collected through the questionnaire, estimated and analyzed in this chapter.

The last chapter provides the conclusion and discussions of the findings, implications along with study limitations and future research directions.

## **CHAPTER 1**

### **1. MOBILE MARKETING**

The most recent illustration of innovative advancements is the utilization of mobile phones in marketing exercises. Mobile phones may these days be utilized as fundamental correspondence and marketing channels because of their turning into a portable entertainment tool, multimedia communication tool, marketing tool of retailers and producers, multimedia shopping tool, perform payments, ticket purchase and reservation, and a device to build up the versatile Internet association. Improvements in mobile communication technology have brought about upgraded elements of mobile phones, the fast development of mobile trade, influencing business activities of organizations, adding another measurement to the buying propensities for customers, and the mobile marketing idea has arisen. Mobile marketing is the most recent marketing apparatus that has surfaced after Internet marketing that plans to communicate with target customers through cell phones and perform promoting exercises, which can be considered inside the immediate promoting thought (Öztaş, 2015).

#### **1.1 THE EVOLUTION OF MOBILE MARKETING**

In simple terms, the history of the mobile can then be explained as, first of all, a course of individual business people pulling the technology; second, their success leading to a course of business management pull, which resulted in an adequate level of familiarity with the general public for a third period during which the consumer at large adopted the technology very rapidly; and fourth, this eventually resulted in the situation we have now where having a mobile phone is approximately a social necessity (Harper, 2003).

Mobile phones were originally introduced as a new form of interpersonal communication, allowing people continuous communication while they are on the move. Recent developments in the mobile technologies, both in the capabilities of handheld devices and in the underlying infrastructure, converted the mobile channel



into a complex business space in which business entities launch various kinds of marketing campaigns utilizing text messaging, multimedia services, and mobile Internet. Now mobile users do not only communicate with each other through the mobile medium, but they also engage in several of type's services provided by business entities. For example, they shop and entertain themselves (Varanlı, Toker, & Yılmaz, 2010, p. 2).

Consumers have progressively used mobile devices for communication, amusement, business and information aims. Mobile marketing has transformed staggeringly from the past or even a few years ago owing to the advent of modern technologies and progressed internet substructures enabling more comprehensive communications (Tunsakul , p. 188).

Forms of businesses using mobile marketing include online stores, mobile advertising, games, and location-based services. The changing shapes of mobile advertising contents are driven by technologies such as QR code and augmented reality. Game is also a significant part of a mobile device that can absorb a lot of target players worldwide. Online games are launched to expand relationships among online players as well as to generate revenues from selling special items to some addicted players. Mobile device users have found it more comfortable to shop online. Location-based services using GPS or Google Maps have aided businesses in creating consumers' interest, awareness, action and desire. Mobile marketing still has growth potential as technological expansion never stops (Tunsakul , p. 187).

Ways of doing business and marketing have also extremely transformed from the past. Business forms using mobile marketing include mobile advertising, online stores, games, and location-based services. Billions of mobile ads are delivered through SMS, mobile webs and free mobile applications in one day in all parts of the world (Tunsakul , p. 189).

The more the marketers can catch up with new technologies, gadgets and trends, the higher the chance to remain prior to other competitors in serving the markets. Mobile marketing is employed to support all other marketing tools and tactics like viral marketing (with the culture of online sharing), customer relationship management (by staying up-to-date with customers), corporate social responsibility

(by publicizing social marketing campaigns), online advertising (in varieties of content sponsorship and banners), and guerilla marketing (making use of low cost or free media to influence the target audience). In a very nutshell, the evolution of mobile marketing has resulted in new and trendy ways of marketing the businesses, cost reductions, increased profitability, and hi-tech image (Tunsakul , p. 192).

## **1.2. DEFINITION OF MOBILE MARKETING**

Mobile Marketing can be defined as any marketing advertising and sales promotion efforts communicated to customers using mobile channels. Mobile marketing uses wireless tools to create time and place awareness, provide products, services and personal information. Such marketing method can be referred to as the activities necessary to communicate with customers through the use of mobile devices to increase the sales, services and acquisition of information about the products/services (Karaca & Ateşoğlu, 2006, p. 38).

Mobile marketing is defined as “the use of the mobile medium as a communications and entertainment channel between a brand and an end-user. Mobile marketing is that the only personal channel enabling spontaneous, interactive, direct and/or targeted communications, any place, any time (McCorkle & et al, 2013, p. 91). Mobile marketing is the most personal medium available. People run their lives off of mobile. It’s business, it’s personal, it’s information gathering. It’s on 24/7. We call it the “brand in the hand” (McCorkle & et al, 2013, p. 81).

Mobile marketing is a multi-faceted discipline that continues to evolve (Goneos-Malka, Strasheim, & GroblerInternation, 2014, p. 907). Because the rate of individuals using smart phones and other mobile devices continues to expand, many marketers have begun utilizing these channels to deliver commercial information to focus on consumers, and this can be called mobile marketing. More specifically, mobile marketing is defined as ‘using a wireless medium to provide consumers personalized information and with time and-location-sensitive that promotes services, goods, concepts and thereby benefiting all stakeholders’, and this allows companies to deliver information on to potential customers without being constrained by time and geographical factors (Hsiao & Chang, 2014, p. 730).

There are many definitions of mobile marketing in the literature, that some of them are as follows:

- Mobile Marketing Association (2003), which defines mobile marketing as “any style of marketing, advertising or sales promotion activity aimed toward consumers and conducted over a mobile channel” (Salo, Sinisalo, & Karjaluoto, 2008, p. 498).
- Mobile marketing defined as ‘Using interactive wireless media to provide customers personalized information with time- and location-sensitive that promotes services, goods and ideas, thereby generating value for all stakeholders’ (Carroll & et al, 2007, p. 81).
- Mobile Marketing Association in 2006 defined mobile marketing as “the use of wireless media as an integrated content delivery and direct-response vehicle within a cross-media marketing communications program.” Mobile marketing includes three of the main promotion tools: advertising, direct marketing and sales promotion (Leppäniemi & Karjaluoto, 2008 , p. 51).
- Mobile marketing can be defined as a set of applications that enhance engagement and communication with audiences, interactively and relevant through the use of mobile networks or devices (Michael & Salter, 2006 , p. 79).
- Kaplan defined mobile marketing as any marketing activity conducted through a ubiquitous network to which consumers are constantly connected employing a personal mobile device (Kaplan, 2012, p. 130).
- Scharl, Dickinger, and Murphy defined mobile marketing as using a wireless vehicle to provide customers personalized information, with time and location sensitive, which promotes services, goods and ideas, therewith benefiting all stakeholders (Scharl , Dickinger , & Murphy, 2005, p. 165).

### **1.3. MOBILE MARKETING SPECIFICATIONS**

Mobile Marketing offers two main benefits for those interested in marketing, based on the capabilities of mobile devices. These; mobile devices are always on the user's side and always on. Mobile devices are designed to be always or often switched on by their characteristics. This gives marketers the ability to reach the target audience

at all times. In addition, these devices are appropriate for carrying personal and dimensions. The reality that the device is always kept by the owner is also an important advantage for marketers (Slabeva, 2003).

The key features of mobile marketing can be listed as follows: (Arslan & Arslan, 2012, pp. 29-31).

- Direct marketing; it is seen that mobile marketing is positioned as a subtitle of direct marketing, one of the marketing communication tools. Although mass transmissions are made, personalized messages can be created through software.
- The cost is low; the cost of communication through mobile marketing is very low compared to communication with mass media. When the content and application areas of mobile marketing campaigns are taken into consideration, they can be realized with much lower budgets compared to the other media. In addition to the low cost of the applications, they have the chance to reach the target audience directly with the right segmentation, is one of the most important features of mobile marketing.
- It's fast; in mobile marketing, all transactions take place on the consumer's mobile device. The consumer can access the message anytime and anywhere, to saving time. In this way, return information on marketing campaigns can be obtained quickly.
- Measurable; one of the most important features of mobile marketing is that it is measurable. All submissions, contributions, feedbacks can be reported in real time. In mobile marketing, metering gives companies a significant advantage when compared to traditional media.
- It provides a high level of awareness; research shows that mobile marketing activities are more effective on consumer brand awareness than traditional channels. Using location information provided by mobile devices, location based campaigns can be prepared. Messages are sent at the right time according to the location of consumers.
- It can be realized both unilaterally and interactively; not only from the enterprise to the consumer, but also campaigns that involve the participation of the consumer. When two-way applications are used, it is easier to achieve the

desired interaction between the enterprise and the consumer and the interactive environment created enables the target audience to take action to benefit from the campaign.

- Allows the customer to attract to the store; sales with mobile marketing tools is like bringing the salesperson to the customer or attracting the customer into the store; in particular, Short Message Services (SMS) are important for reaching both existing and potential customers. Not only for advertising purposes, but most importantly, in today's business where retaining an existing customer is an important business success, it creates an important value in establishing and maintaining a strong relationship with its customers.
- Allowed marketing method; marketing communication through traditional means is harassing; Does not get permission from the consumer, therefore, it may be uncomfortable for consumers and they do not want to be exposed to the message. However, in Mobile Marketing campaigns, it is necessary to get permission before reaching the consumer. This increases the success rate of the campaign.
- Enables personalization; one of the important features that differentiates mobile marketing from other marketing methods is the ability to offer consumer-specific messages and opportunities. Marketing experts and brand managers can send the appropriate message to the appropriate person at the appropriate time by using consumer information in the databases. In particular, the messages can be grouped according to the common characteristics of the people to be sent to these groups from a single point and can easily send bulk messages, makes the messaging process much more advantageous.
- Location and time benefit; mobile marketing allows communication with consumers anywhere and anytime. It is possible to connect to internet anywhere 24 hours a day via mobile communication tools. As a result, consumers save significant time through mobile marketing.
- Simultaneous; mobile marketing has the potential to be part of a widespread electronic presence system that senses not only who the customer is, but where and what they are doing. E-mail and / or short message services (SMS), which is an important element of direct marketing, are very important tools that should be used in a single or integrated manner.

#### **1.4. DIFFERENCES BETWEEN MOBILE MARKETING AND TRADITIONAL MARKETING**

Marketing is a story used to encourage and persuade humans to trade. Marketing has two fundamental methods which are traditional and modern. Traditional marketing used to discuss increasingly attracting customers to purchase their goods or services. Modern marketing is a new manner of attracting customers by using modern facilities and technologies. Electronic marketing is a term that refers to utilize the internet or Web and related information technologies to conduct marketing activities. Indeed, electronic marketing is using digital technology and electronic media specifically the internet for selling good and trading (Salehi & et al, 2012, p. 511).

Electronic marketing defines as“ Applying digital technologies which form online channels (Web, databases, e-mail, digital TV and plus mobile/wireless) to contribute to marketing activities aimed at achieving beneficial acquisition and maintenance of customers through improving our customer knowledge (of their profiles, value behavior and loyalty drivers), then delivering integrated targeted communications and online services that match their individual needs (Mirzaei & et al, 2012, p. 232).

Compared to the traditional media that tend to own limited information capacity, the web/internet enables consumers to access almost unlimited amounts of data at substantially reduced costs and efforts (Jee & Lee, 2002, p. 40).

One of the key differences between traditional marketing – apart from its mass-market orientation – and mobile marketing is that traditional marketing has historically been used for creating preference and driving demand. Mobile, on the opposite hand, takes everything to a new level and can be used to create preference, drive demand and complete the transaction.

Unlike print, radio, TV, and even the Internet, marketers have a chance to engage the consumer with their brand and drive to purchase in real-time – either in-store or online. This is a quantum shift from all types of marketing within the 20th century where the marketing campaign and therefore the final transaction were two very distinct and separate things.

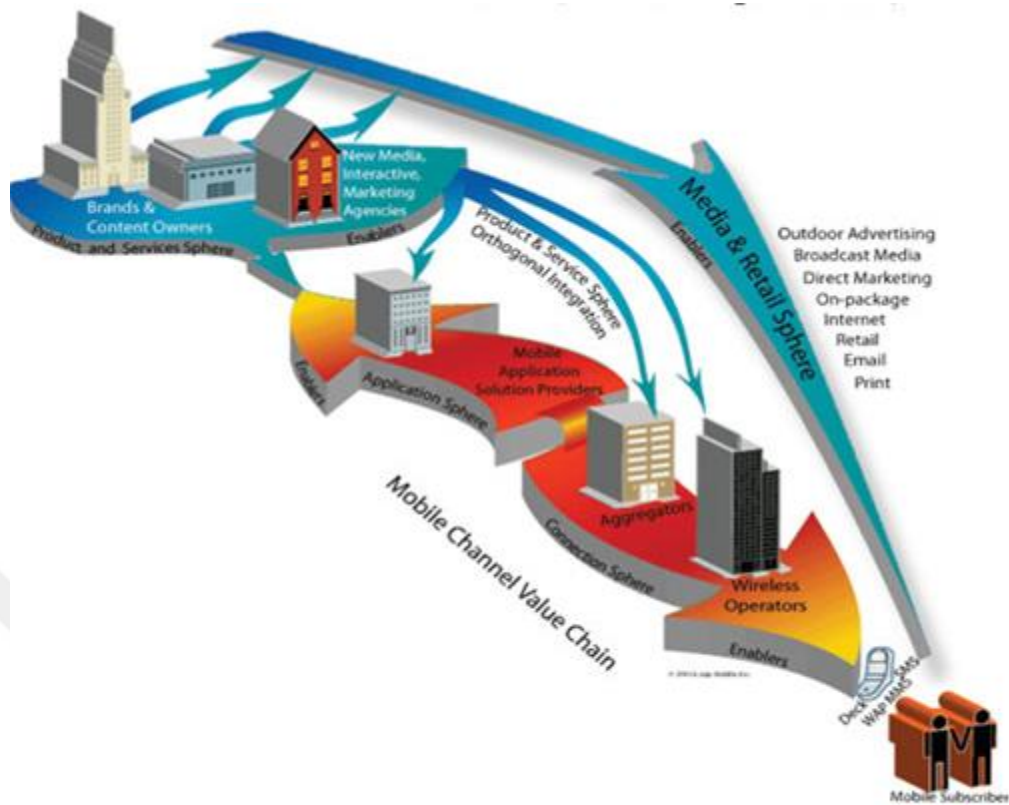
In addition, a mobile consumer is more probably to be ready to take action than a non-mobile consumer. According to recent research, 9 out of 10 mobile searches lead to action, which can include generating a call, generating a lead, driving in-store traffic, initiating a download, and even generating offline conversions (Stuart & Palmieri , 2017).

Comparing both types of marketing, mobile marketing is that the more economical and faster way to reach out to buyers directly and is the ideal way for business to advertise locally or internationally. As a result in case of comparison; both types of marketing can help traders and marketers to do business. Each has advantages and disadvantages. In traditional marketing, consumers can see and touch the real goods or service but the domain of effect is low, on the opposite hand using mobile marketing will exceed the boundaries and introduce services and goods to the demographic of internet users. Also using the net would be more chipper, faster and convenient for marketing. Approximately the benefits of mobile marketing are quite greater than the benefits of traditional marketing (Salehi & et al, 2012, p. 514).

## **1.5. THE ENVIRONMENT OF MOBILE MARKETING**

The Mobile Marketing Ecosystem is comprised of 4 interconnecting strategic spheres—Product & Services, Applications, Connection, and Media and Retail. Various enablers provide the foundation for every particular sphere. Players within these spheres work in harmony to deliver a rich experience to consumers. The Mobile Channel Value Chain is that the route by which the real mobile communication and interactivity take place between the Products & Services Sphere and mobile consumers (subscribers), however, consumer demand must first be established. To make this demand, products, services, events, and content programs are promoted through the Media and Retail Sphere's different traditional channels (Becker, 2005).

**Figure 1.1: Mobile Marketing Ecosystem**



**Source:** Becker M., iLoop Mobile Inc., 2005.

## **1.6. CLASSIFICATION OF MOBILE MARKETING**

When mobile marketing is integrated into the overall marketing strategy implemented in a business, we can talk about multichannel marketing. In order to attain this integration, the type of mobile marketing should be determined first. A generally accepted mobile marketing classification provides support and facilities for businesses to select the type of mobile marketing that suits them and their objectives and to make multiple marketing strategies. Mobile marketing activities can be classified into three different criteria: (Klein, 2014, pp. 278-281).

### **1.6.1. Technological Network Infrastructure Supporting Mobile Marketing**

We can group the Technological network infrastructure supporting mobile marketing, in three different groups (Klein, 2014, pp. 278-281):



- **Mobile carrier networks:** it is possible to reach the customer base anywhere and anytime by means of mobile carrier networks and this results in very advantageous results for marketing. Technologies such as GSM, GPRS and WAP belong to this group. GSM (Global System for Mobile Communications) is a mobile communication protocol. GSM is a European standard developed for cellular communication via base stations. GSM cellular data services are supported by GPRS because they cannot fully fulfill the requests of the users. GPRS (General Packet Radio Service) is a mobile communication service that allows data to be transmitted faster over existing GSM networks and provides uninterrupted Internet connection to mobile device users. WAP (Wireless Application Protocol) is a global standard that delivers Internet content and services to mobile phones and wireless devices.
- **Wireless networks:** wireless networks are a technology that uses a point-to-point or a network structure and uses air as a transmission medium. Within a wireless local area network (LAN - Local Area Network), a plurality of devices can be connected to each other wirelessly. Wireless local area networks use radio frequency or infrared technology instead of cable to communicate between computers and other devices within the network. The wireless local area network provides Internet connectivity to devices within the network wirelessly, depending on the network technologies available in the computer system.
- **Local frequency:** Local frequency connections are technologies that make connections between devices that see each other in a short distance. Devices connected by local frequency require either a mobile carrier network or a wireless local area network to establish an Internet connection. Bluetooth, RFID, NFC, square code technologies belong to this group. It is the name of short distance radio frequency (RF) technology that eliminates Bluetooth cable connection. Via Bluetooth technology, data transfer is made at short distances by means of radio waves between various vehicles. Via Bluetooth, data can only be sent between devices that have this feature turned on and users who allow communication. RFID (Radio Frequency Identification), NFC (Near Field Communication) and QR-Code (Quick Response) applications are based on the principle that mobile devices read the codes on the objects under mobile

labeling. With Bluetooth technology, data is sent directly to mobile devices, while mobile tagging technologies encrypt only the required information and wait for the user to read it.

### **1.6. 2. Software Technologies Used as Tools in Mobile Marketing**

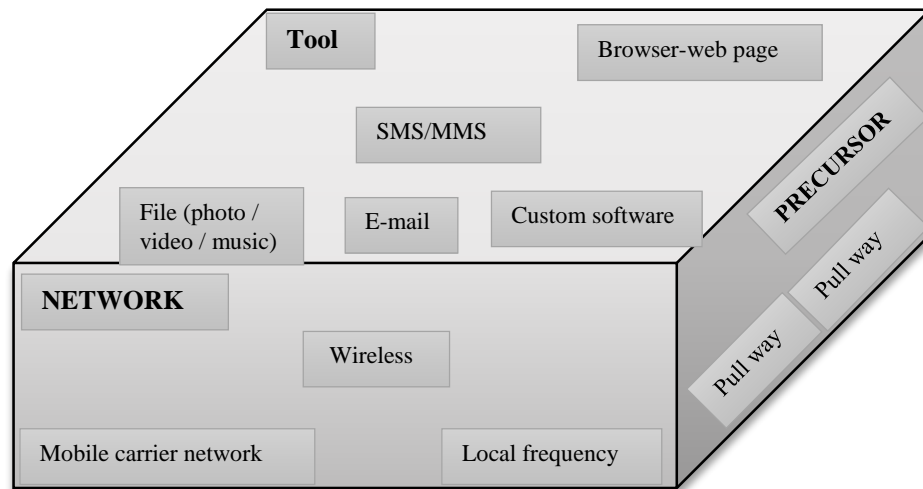
The software technologies used as a tool in mobile marketing can be summarized as follows (Klein, 2014, pp. 278-281):

- SMS / MMS: Text or multimedia messages sent over the mobile carrier network.
- E-mail
- File (photo / video / music)
- Web pages accessed via browser
- Special softwares: Special softwares used in mobile marketing are social media softwares such as Facebook, Twitter and Instagram.

### **1.6. 3. Leading Party in Launching Mobile Marketing**

Mobile marketing involves two-way, interactive marketing methods. According to which participant initiated this interaction, in other words, it leads the interaction, mobile marketing is carried out in a push and pull direction. Push-way mobile marketing is the delivery of marketing content to customers' devices without demand from them. This content can be sent as SMS, MMS, data file or e-mail. Pull-away mobile marketing is a marketing method based on the customer's request for mobile content at his own request. The customer requests information about products or services of interest. By connecting the customer with the mobile device to the Internet or wireless local area network, communication is required for both mobile marketing methods. Sending SMS ads to a customer's mobile phone is a push-away mobile marketing method, while the customer's search for a product on the Internet with his mobile phone enters pull-way mobile marketing (Klein, 2014, pp. 278-281).

**Figure 1.2: Mobile Marketing Classification Criteria**



**Source:** Klein, 2014, p. 279.

## 1.7. MOBILE MARKETING STRATEGIES

Regrettably, mobile marketing is frequently performed on ad hoc basis and the connection between companies marketing communications strategy and individual mobile marketing campaign is extremely weak or maybe even missing completely. Hence, to effectively demarcate the mobile marketing domain, it is crucial to establish how mobile marketing relates to a company's marketing communications strategy. However, it is first obligatory to emphasize that a marketing strategy is a cornerstone of the company's in all marketing activities (Leppäniemi & Karjaluo, 2008 , p. 51).

Strategies are broad statements about how the objectives are going to be achieved. There's a good range of strategic approaches that will be adopted within the development of selling communications. As an example, Patti and Frazer (1988) identified seven dissimilar creative strategy alternatives, and Aaker and Shansby (1982) suggested six different positioning strategies, whereas Ries and Trout (1982) have been strong advocates of competitive positioning as a fundamental strategy. Additionally, many models intended to assist to develop an appropriate communications strategy have been proposed (Leppäniemi & Karjaluo, 2008 , p. 53).

Quite often, however, marketers are choosing from two basic marketing communications strategies – push and pull strategies (Leppäniemi & Karjaluoto, 2008 , p. 53).

- Pull Strategy: while a pull strategy is aimed toward encouraging customers to drag products through the distribution channel, Push-based mobile marketing refers to any content sent by or on behalf of advertisers and marketers to a mobile device at a time apart from when the subscriber requests it. Push-based mobile marketing includes, as an example, short message service (SMS), audio, e-mail, multimedia messaging, picture messages, cell broadcast, surveys, or the other pushed advertising or content.
- Push Strategy: push strategy involves the presentation of data so as to influence other trade channel organizations. Pull-based mobile marketing is defined as any content sent to the mobile subscriber upon request in a short time thereafter on a one-time basis. As an example, when a consumer demands a mobile coupon or whenever the content of the respond, containing any related marketing communication, is pull-based mobile marketing.

In brief, in push type of marketing, the users receive messages due to existing relationship or the users have agreed to receive the marketing materials. In Pull types of advertisements, the marketing materials are being sent to mobile devices users on a one time basis. Pull strategy is getting used more often than push strategy (Sarabdeen , 2008, p. 281).

Implementation of a mobile marketing strategy correlated with the full marketing mix – offline and online it's a primary condition for achievement, because it's been shown that different marketing goals cannot succeed without an integrated approach (Cătoiu & Gârdan, 2010, p. 733). A mobile marketing strategy isn't most dissimilar from the other marketing strategy-it requires an understanding of the commerce objectives you're trying to achieve, determining which marketing tactics you'll use to achieve those objectives, and measuring those tactics to determine what tasks. A mobile marketing strategy obtains the benefit of the unprecedented opportunities mobile requires to proffer the channels it provides, additionally because

the in-the-moment, hyper-personalized experiences and interactions it enables. Three fundamentals for creating powerful mobile marketing strategies are: (Meritt, 2016)

- Understanding your audience: Base your mobile marketing strategy on an obligation to serve user needs
- Define how your mobile marketing strategies will assist you to meet your business objectives
- Explore your mobile marketing channel options

Firms to pursue a mobile marketing strategy, areas of mobile strategy strength and weakness, and the need to outsource mobile marketing planning and implementation can use a checklist to ascertain their readiness. This checklist includes the following: (Berman, 2016, p. 434)

- Being aware and responsive to the complexities of mobile marketing
- Evaluating mobile marketing website
- Balancing the need for ‘bells and whistles’ with the need for clean, mobile-optimized sites
- Periodically studying a firm's opt-in rate and the factors that influence it
- Using appropriate opt-in incentives
- Handling personal information in a confidential manner
- Portraying the use of personal and institutional trust
- Demonstrating that consumer trust will not be abused through constant offers
- Developing functional apps that add value to consumers
- Integrating mobile coupons into a mobile marketing campaign
- Constantly evaluating mobile marketing programs through use of multiple measures

## **1.8. MOBILE MARKETING OBJECTIVES**

Mobile marketing is that the newest marketing form that allows business entities to use mobile phones as an ultimate marketing vehicle, thus establishing a perpetual presence within the lifetime of their customers, anytime, anywhere. Over

having unprecedented opportunities in building and fostering customer relationships, the private nature of the mobile instruments suggest that there's a powerful compatibility between a customer's own values and a life-style involving mobile marketing services (Zegrean & Paraschiv , 2013, p. 72).

Mobile marketing is used for a number of purposes like prospecting customers, advertising announcement, brand building, products features and stuff (Ashraf & Kamal, 2010, p. 11).

The objective of mobile marketing campaigns is to augment brand awareness and revenue, improve consumer loyalty, generate opt-in databases and boost attendance at particular events (Salo, Sinisalo, & Karjaluoto, 2008, p. 498).

The objectives of mobile marketing vary depending on the usage method. Mobile marketing aims to create brand awareness, change brand image and increase brand loyalty. With the help of creating brand awareness and mobile marketing, it is aimed for the consumers to recognize and remember the brand in their purchase and consumption situations. With the mobile marketing applications, the brand image in the customers is changing. Customers feed positive or negative thoughts towards the company or brand with the information of goods and services received in mobile marketing applications. For example; the business is using mobile ads to provide information about their campaigns. If he gets permission in doing so, then the consumer will also have a positive image about the company. However, if there is a difference between the information conveyed by the company and its actual applications, then the customer will create a negative image against the company (Özgüven, 2013, pp. 46-47).

Other objectives of mobile marketing are listed below: (Karaca Ş. , 2010, p. 75)

- Creating brand awareness: Mobile marketing targets the ability to recognize and remember customers in situations of purchase and consumption, and is important in the delivery of new products and services.
- Changing the brand image: Mobile marketing aims to change the brand image of customers. Brand image; a set of brand-related associations that consumers

keep in their memories. The campaign aim, which is often mentioned in field studies and expert interviews, is sales promotion, which leads to faster or more purchases of the product or service.

- Increase brand loyalty: One of the goals of mobile marketing is to enable customers to buy the brand again and buy more. Of course, in order to do this, the customer database and customer profile must be present. The concept of profile is the customer activities and appearances of the same or similar values.

## **1.9. THE ADVANTAGES AND DISADVANTAGES OF MOBILE MARKETING**

In the rise of mobile marketing in marketing communication; the positive effect of developing and cheap smartphones is that they are more cost-effective, measurable, personalized and interactive than traditional media (Bozkurt & Ergen, 2012, p. 46).

From a marketer's perspective, the advantages of mobile marketing include a high rate of personalisation, interactivity, and a low cost of reaching large target audiences at the correct time and in the right place. Therefore, mobile marketing is a vital tool for all marketers, for the simple reason that the combined advantages of mobile marketing are simply not yet obtainable through the other medium. In numerous countries, mobile marketing is subject to government regulation, which dictates that prior permission from the consumer requires to be sought before a mobile marketing message can be sent. Additionally, mobile marketing also requires the customer to supply personal data to the marketer, so the total benefits of mobile marketing can be put into use. Such personal data may contain demographic and location information. The more companies can utilise various kinds of customer data, the more personalized, relevant and effective their mobile marketing is probably going to be (Jayawardhena & et al, 2008, p. 474).

Mobile marketing offers businesses two main benefits according to the characteristics of mobile devices. These; mobile vehicles are always active and these vehicles are always with the user is almost like a part of itself. This gives the opportunity to reach the desired audience at any time for the enterprises. In addition,

these vehicles are individual products and are able to carry dimensions (Armağan & Gider, 2014, p. 30).

The key advantages of mobile marketing for firms compared to traditional media stand out: (Bozkurt & Ergen, 2012, pp. 47-48)

- Success measures are more detailed, reliable and easy to follow.
- Allows live campaign measurement and tracking.
- SMS marketing is quite cost effective.
- It enables one-to-one marketing.
- It is interactive.
- Allows instant response to the consumer.
- Enables situational targeting (mobile ad can only be sent to participants at a specific location or to a specific event).
- Return rates are above 10%.
- Mobile ads remain in the device's memory.
- It allows the immediate spread of the marketing message, creating a strong viral effect.

A good mobile marketing campaign needs to capitalize on the advantages of mobile marketing. These advantages include: (Berman, 2016, p. 432)

- Mobile marketing is always on, always connected, and always with the consumer
  - ✓ Marketers can generate offers based on special weather conditions and natural disasters.
  - ✓ Marketers can quickly match a competitor's price offer or use short-term price reductions to reduce inventory levels.
  - ✓ Marketers can quickly assess the effectiveness of different campaigns.
- Mobile marketing is able to generate location-sensitive offers
  - ✓ Marketers can develop special offers to consumers within a given distance to both its own and competitors' retail locations.
  - ✓ Marketers can provide special product information to consumers within a specific aisle.



- Mobile marketing can send relevant personalized messages and offers
  - ✓ Marketers can tailor messages and offers can be tailored to each consumer based on their purchase history, social media usage, demographic data, and usage data.
  - ✓ Marketers can present different offers to current consumers, heavy users, lapsed users, relationship customers, and transactional customers.

Mobile marketing is the easiest and least cost-effective way to reach last users by using mobile (wireless) devices as marketing tools. These are marketing activities that can be applied to areas that are displaceable and constantly in motion. It provides an uninterrupted communication by eliminating the concept of time and space in communication (Armağan & Gider, 2014, p. 29).

Furthermore, mobile marketing often also needs the consumer to provide personal data to the marketer. In addition to the mobile device number, such personal data may contain demographic and location information. The more companies can utilise a variety of customer data, the more personalised, relevant and effective their mobile marketing messaging is probably going to be. However, in order to get personal data and also the customer's permission to use it, a degree of trust is required. Indeed, one of the main causes explaining the slow uptake of mobile marketing is that the perceived lack of customer trust. Companies are reluctant to adopt mobile marketing mostly because they fear that the consumers are reluctant to participate, as consumers are perceived to worry about the issues of e-mail spamming being repeated on their mobiles. Another concern from the customer perspective is how companies handle and utilise their personal information. Within the context of websites, nearly 63 percent of the purchasers who refuse to provide personal information to internet sites base this decision on lack of trust. a sense of lack of control over how companies use the personal data was the most reason behind this lack of trust, and it's conceivable that similar concerns may exist within the context of mobile marketing (Kautonen, 2007, p. 105).

Some of the disadvantages of mobile marketing are as follows; (Yamamoto, 2008)

- Detection issues
- the undeveloped use of internet from mobile
- Carriers and systems not developed as fast as mobile phones
- Mobile marketing service providers are underdeveloped
- Lack of full unity between mobile service providers
- Advertising and promotional companies that cannot be considered as insufficient in terms of mobile advertising

### **1.10. THE IMPORTANCE OF MOBILE MARKETING**

The reasons that make marketing important; With the possibility of bi-directional communication, the user knows from whom the message is received and provides integrated marketing communication. Businesses should provide information to their potential customers for the goods and services they offer. Since mobile marketing applications enable this communication to be realized in the most effective and efficient manner, with the increasing importance of mobile marketing, it has become the preferred applications for expanding the market and enabling the development of the best marketing practices (Özgüven, 2013, p. 44). Accordingly, the significance of mobile marketing can be laid out through the accompanying (Yousif , 2012):

- The significance of mobile marketing increments through the spread of cell phone use and its reception as the fundamental channel for the advancement of labor and products as a methods for direct contact with purchasers.
- The advertisers 'appropriation of mobile marketing has empowered them to feature their items to buyers and interest them in purchasing these items from retail locations.
- Price offers through mobile marketing offer interesting freedoms.
- The mobile phones has assisted organizations with expanding the adequacy of item dissemination and following merchandise during shipment and the capacity to convey from the closest truck or outlet, in this way assuming a functioning part in lessening stockpiling costs, just

as empowering shoppers to monitor the arranged item, its conveyance course and its date of conveyance.

- Incorporation of correspondence through cell phones with the conventional channels of correspondence builds up brand mindfulness.
- Mobile marketing has given the marketers intuitive correspondence, the classification and progression of the reaction, and the capacity to rapidly decide the degree of reaction to the sent messages.
- The pace of the objective's reaction to mobile marketing efforts is higher than that of customary techniques for advancement.

### **1.11. ETHICAL AND LEGAL REGULATIONS IN MOBILE MARKETING**

The use of the web/internet can affect the privacy rights an individual has in his or her identity or personal data. Internet use and transactions generate an oversized amount of private information that provides insights into your personality and interests. Mobile marketers are generally forced to obey the laws and standards for both computer- and email-based marketing, as well as phone-based telemarketing restrictions. Laws that control marketing and messaging on the traditional Internet also apply to the mobile phone device (Kumar & Rajput, 2014, p. 251). The issue of privacy may be a major challenge for the companies which attempt to maximize the employment of mobile environment for their benefit. The mobile technology facilitate store, transfer, and manipulate an unlimited amount of data. These data could be accustomed describe, build and define an individual digitally. Just like the Internet the use of the mobile technology generates digital footprints about a user and allows the interested parties to locate a specific user. Right to privacy not only allows the control of physical spaces but also allows controlling the private information. The traceable, callable and reachable nature of mobile devices provided plenty of chances for violation of users' rights to privacy. The mobile communication is direct to the owner, immediate and really near the people's daily lives. These features let the companies to personalize their marketing content and build easy interaction and eventually cause intrusion into one's right to privacy (Sarabdeen , 2008, p. 281).

Some ethical articles in mobile marketing according to DMA: (Direct Marketing Association , 2014).

- Article 54; Marketers should obtain prior express written consent from existing and prospective customers before using automated dialing equipment to send mobile marketing to a wireless device.
- Article 55; Marketers that send or intend to send mobile messages should publish an easily accessible notice of their information practices (which includes but isn't limited to a notice in their respective privacy policies) with considerations to mobile marketing.
- Article 56; Every mobile marketing message sent must include an easy and easy-to-use mechanism through which the individual can opt out of receiving future mobile marketing messages. Where possible, the opt-out procedure provided should permit the recipient to opt out via responding text message.

Future regulations of electronic marketing (M-Marketing) should focus on the following principles: (Kiškis, 2010, pp. 367-368).

- Non-discriminatory regulation for all forms of electronic marketing.
- Non-discriminatory regulation for national marketers compared to marketers acting in other Common Market Countries.
- Regulation of electronic marketing according to the combination of opt-out and opt-in principles. The former (opt-out) shall be applicable for less privacy intruding forms of electronic marketing, while the latter (opt-in) shall be applicable to intrusive forms of electronic marketing. It should be mentioned that marketing by SMS messages or pop-up marketing is identified as extremely invasive and unacceptable, while direct electronic marketing by e-mail messages (in cases when a customer has expressed her/his wish to receive them) is more acceptable to customers.
- Self-regulation and codes of ethics are means of non-state social regulation, which may be successfully applied to electronic marketing. Self-regulation would provide businesses with a possibility to determine acceptable and reasonable rules. It would be desirable that such rules and not state regulation define the undesirable electronic marketing, presumptions on violations, ascribe certain privacy quality seals for electronic marketers, which comply with the codes of ethics.

- Sanctions against the abuse of electronic marketing should be significantly increased. Sanctions should cover not only senders of unlawful electronic marketers, but also the sellers of marketed goods and services.

### **1.12. THE FUTURE OF MOBILE MARKETING**

Different countries and regions exist in the different eras of mobile marketing simultaneously, hence the expression "future of mobile marketing" does not imply the same meaning for everyone globally. Many mobile applications that will be offered as novelties in some markets are already in use in some others, such as mobile TV, video streaming, and applications that require broadband connection speeds. Nevertheless, globally speaking, and mobile marketing revenues are increasing at a rapid pace, most of the mobile marketing practices have not even reached their full potential yet (Varanlı, Toker, & Yılmaz, 2010, p. 97).

Over the course of the past few years, use of mobile Internet evolved from an occasional activity to become a daily part of people's lives. This highlights the mounting importance of the mobile medium as consumers become more reliant on their mobile handsets to access time-sensitive and utilitarian information (Varanlı, Toker, & Yılmaz, 2010, p. 98).

Today's new trend, mobile marketing will become more widespread with the development of mobile tools in the coming years. Businesses allocate more to mobile marketing each year than their marketing budgets. Because; According to traditional marketing practices, it is understood that mobile marketing is more effective and less costly. Mobile marketing will be the marketing application of the future. Performance features such as technological advances and location-based applications show that mobile marketing will be a new means of advertising communication. Mobile marketing is a concept that increases interest and importance. Marketers around the world are spending more money on marketing in mobile media. This is because; Companies are looking for ways to create better value for their marketing investments by rapidly changing their marketing communications environment (Özgüven, 2013, pp. 79-80).

Mobile marketing made a humble start, but its future is bright. Seeing the opportunity, firms have started to allocate more and more budget for mobile marketing, which has made the mobile marketing value chain flourish (Varanlı, Toker, & Yılmaz, 2010, p. 103).



## **CHAPTER 2**

### **2. MOBILE APPLICATIONS**

In the cutting edge period of Information and correspondence framework, individuals are adjusted to utilize PCs and PC applications. In any case, Mobile Application uses and advancement is another and quickly developing area. Utilizing mobile applications created nations are turning out to be work with and society of developing nations are updating themselves and making another kind of IT framework. Mobile applications are running on a little handheld cell phone that is moveable, simple to utilize, and accessible from anyplace and wherever. Inside the most recent couple of years, cell phone and mobile application utilizes development rate is so high. So the smartpone and mobile application additionally decidedly affects marketing. There are various spaces of marketing where mobile applications play a significant role. In the following chapter we have attempted to examine some issue about the marketing result of mobile applications (Islam, Islam, & Mazumder, 2010).

#### **2.1. MOBILE MARKETING APPLICATIONS**

Mobile technology represents one of the fastest-growing marketing communication platforms, and a variety of mobile phone devices are in widespread use around the world. Because of this convergence of wireless and mobile device technology, consumers are now freed or untethered from their homes, offices, and desktops, with the power to communicate, share and access information within their social networks, play games, and purchase products via location-based applications (Rohm & et al, 2012, p. 486). Mobile apps become independent from desktop computing or other softwares, initial hosting is approximately always done through mobile application distribution platform to then be downloaded to mobile phones. A mobile application is a computer designed program to run on smartphones, tablet computers, and any other mobile (Musa & et al, 2016, p. 447).

Mobile phones aren't any longer devices for one-to-one communication through text messaging and voice services. This phenomenon has increased the attention of the new dynamic market environment which caused many business entities or firms to constantly searching for methods and means of expanding and retaining

their market share. Many marketing experts noticed that the mobile device is a very promising marketing tool to overcome the major challenges of getting time and therefore the attention of consumers (Musa & et al, 2016, p. 447).

Systems and devices based on mobile technologies are now commonplace in daily life. Such devices and systems include cellular telephones and pagers, cordless telephones, two-way radios, baby crib monitors, remote car locking systems, wireless networking systems, Global Positioning System (GPS), based locators and maps, and electronic monitoring devices for parolees. Occasionally these systems and devices permit existent activities to be carried out more efficiently or effectively; at other times, they permit absolutely new and different activities (Balasubramanian, Peterson , & Jarvenpaa, 2002, p. 348).

The more mobile devices with internet access gain popularity, the stronger their influence is on consumer shopping patterns. Consumers use their mobile devices to browse for products, check store locations/hours, read reviews, and make a purchase. Consumers also use their mobile phones for various in-store activities such as price comparison, feedback sharing, and getting coupons/promotions. Mobile technology and its appropriate use will provide new opportunities for marketers and retailers to connect and build a continuous relationship with consumers (Ha & Im, 2014, p. 441). Several years ago, prior to the launch of the iPhone, marketers and researchers began touting the opportunities inherent in ‘brand in the hand’ marketing via mobile devices, particularly among youth markets. Also, while smartphones have yet to see mass consumer adoption, this trend is quickly changing among younger consumers (Martin & Shilton, 2016, p. 1871). The mobile phone has led to a profound revolution in our society because of its social and economic impact (Hosseini, Fatemifar, & Rahimzadeh, 2015, pp. 1-2). Mobile marketing has increasingly become a staple tactic in brands’ advertising and promotional efforts (Martin & Shilton, 2016, p. 1871). And individuals use mobile applications to socialize, communicate, play, shop, bank, and search for information (Martin & Shilton, 2016, p. 1871).

### **2.1.1. Mobile Commerce**

Besides the established E-commerce, companies are now focusing on new emerging internet marketing strategy in which through the mobile devices called as



mobile commerce (Musa & et al, 2016, p. 448). Briefly, mobile commerce is often understood as a business model that allows a consumer to finish all steps of a commercial transaction using a mobile device. The expansion and use of mobile commerce as an emerging technology has the possibilities to dramatically alter the way customers conduct transactions. Mobile commerce driven by wireless communication technology is additionally generating interest among marketers. So, the penetration of this new technology has led to variations in advertising, retailing and purchasing in marketing, and firms wishing to form a business in mobile markets should be ready for mobile marketing and mobile commerce (Barutçu, 2007, pp. 26-27).

In addition to e-commerce, mobile commerce creates new markets among producers, distributors, retailers and customers anywhere and at any time (Barutçu, 2007, p. 27).

Although similar in many respects to internet-based electronic commerce, mobile commerce has some core characteristics that differentiate it from classic electronic commerce. These include: (Barutçu, 2007, p. 27).

- Ubiquity: being available at any time and any location;
- Personalisation: while mobile hardware has limited memory capacity, software can enable a finer degree of sorting and categorisation to satisfy the mobile users' needs,
- Flexibility: the mobile permits the user to conduct transactions and / or receive information even when they are engaged in another activity like travelling or working,
- Dissemination: originators of data (for example local retailers) may use the wireless network of mobile commerce to deliver specific information to customers,
- Convenience: convenient for users to work,
- Instant connectivity: the marketer can easily connect with target customers and
- Location: location-specific information and products can be provided.

### **2.1.2. Mobile Internet**

By using new browsers and other mobile applications, the new range of mobile technology put forwards the internet 'in user pocket' that the user possibilities are endless, including banking, booking or buying tickets, shopping and real-time news. All GSM operators offer mobile internet applications. When using the mobile internet, mobile phone users can have access to all websites via mobile phone without computer (Barutçu, 2007, p. 29).

The addition of mobile Internet as a new channel of search and buy has spurred the adoption of the digital medium, and straightforward accessibility of the net on multiple devices is influencing shopping patterns (Singh & Swait, 2017, p. 123).

Mobile Internet sites represent a convenient channel for marketers to provide their customers with branded content that can be downloaded to their personal handheld devices. Branded mobile content does not only increase brand exposure, but it also reinforces brand communities as well. Today, many global brands have mobile Internet sites where their customers can download various types of branded mobile content to their handheld devices such as wallpapers, ringtones, music, videos, and games (Varanlı, Toker, & Yılmaz, 2010, p. 19).

Consumers are now increasingly engaging on mobile Internet to obtain quick answers and information while traveling, visiting websites to find product information, and their mobile activities imply a greater intent to purchase. With increasing reliance on the Internet and availability of mobile Internet and desktop Internet channels, consumers have started to experience wide and rich selection of retail shopping environment (Varshney & Joy, 2015, p. 45).

### **2.1.3. Mobile Banking**

Developments in information technology have an infinite effect on the banking sector, creating continually ever more flexible payment methods and user-friendly banking services. Since the 1980s major technology-enhanced products and services from automated teller machines- ATMs to electronic banking have become available everywhere 24/7. Over ten years ago it had been clearly recognized that the internet

promised nothing less than a revolution in retail banking. Mobile banking is defined as “a channel whereby the customer interacts with a bank through a mobile phone device or private digital assistant. In that sense, it can be seen as a proper subset of electronic banking and an expansion of internet banking with its own unique characteristics” (Akturan & Tezcan, pp. 1-2).

Today mobile banking applications are evolving as a replacement retail channel for banks. Mobile banking is a point of interest in growth strategies for both the banking and mobile carrier industries. Banks, through mobile banking applications, provide a mixture of payments, banking, real-time two-way data transmission, ubiquitous access to financial information and services. It's now taken for granted the mobile phone device as a channel for service consumption offers massive potential in banking (Akturan & Tezcan, p. 1).

Mobile banking allows mobile device users to do their banking transactions outside of the bank hours. they can use their mobile phones to check the balance on their accounts, pay their bills, account transactions, transfer funds, etc. and control their accounts wherever and whenever they want. Nowadays, several banks have launched mobile applications that will allow consumers to obtain banks' services (Barutçu, 2007, p. 29).

#### **2.1.4. Mobile Shopping**

Technological advancement has offered opportunities for consumers to exercise their choices for shopping channels. As a shopping channel, mobile commerce offers the convenience of time and place. Consumers are able to execute transactions on a smartphone instantaneously, anytime and anywhere as it is personal and handy (Mahapatra, 2017, p. 930). There is considerable evidence from industry sources that the use of mobile phone devices in the shopping procedure is increasing remarkably and every reason to trust that with the increasing adoption of smartphones, with their increased functionality in terms of access to comparison and retailers' websites that this trend will continue. Moreover, industry sources also prove that consumers' use of their mobile devices in shopping activity is not restricted to purchase, and indeed that levels of use for activities such as checking prices, comparing products, gathering product information, and reading user reviews are

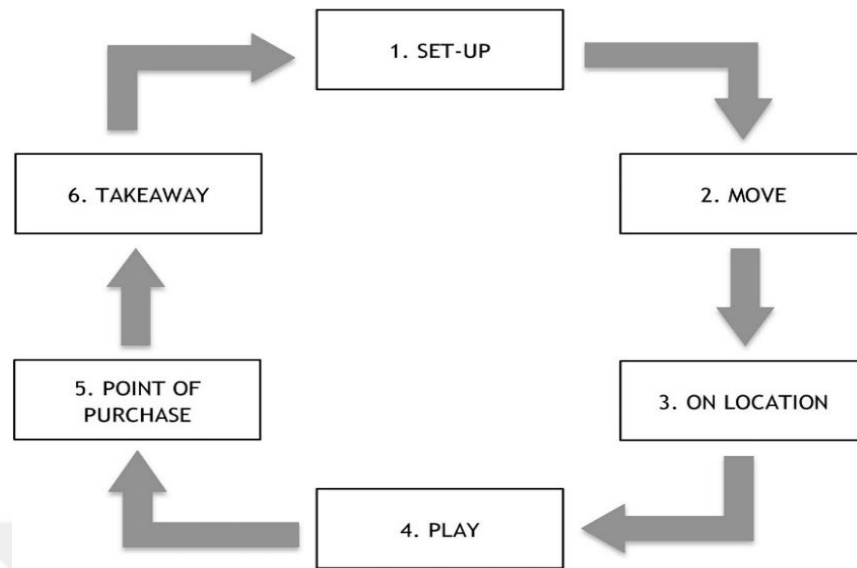
higher than those for purchase. Further, consumers are availing themselves of the opportunity to use their mobile phone ‘on the move’, on the street or in-store (Holmes, Byrne, & Rowley, 2014, p. 25).

The mobile phone is the most exciting instrument to expand customers’ shopping options, only secondary to the web/internet. At first, the mobile phone may seem like a frightening place to shop; however, mobile phone users can go online to buy just about anything they require or want (Barutçu, 2007, p. 29). Mobile shopping empowers shoppers with the ability to gather information on the spot from multiple sources, check on product availability, special offers and change their selection at any point along the path to purchase (Mahapatra, 2017, p. 930). Used correctly, mobile shopping is a new, practical, easy and price-conscious shopping tool. The sudden growth of mobile shopping has placed mobile retailers at the customers’ fingertips and has allowed mobile phone users to buy nearly anything they wish without ever leaving their offices and houses (Barutçu, 2007, p. 29).

#### **2.1.4.1. Mobile Shopping Lifecycle**

Shopping in the mobile era is an iterative process, whereas it was a serial activity in the past. The mobile shopper no longer sits at home and says: “I’m thinking about going shopping,” “I’m going shopping,” and finally “I am leaving home to go shopping.” In the mobile era, you no longer go shopping, you always are shopping. While 87% of retail sales are generated at brick-and-mortar stores, consumers can complete the shopping process without ever having to enter a physical store or leave the comfort of home. For the majority of retail sales, this process is no longer linear; instead, the cycle is circular (Faulds & Raju, 2018, pp. 666-667).

**Figure 2.1: Mobile Shopping Lifecycle**



**Source:** Faulds & Raju, 2018.

This circular process begins with the pre-buy, or what I call the set-up, which occurs at home before shoppers visit a physical store. Then there is the move, in which shoppers' transit to the store. Once in-store (i.e., on location), the play occurs: shoppers decide what products to buy. At the point of purchase, they say: "I want to pay for what I have selected." The circular process concludes with the takeaway, which involves everything that follows a purchase and represents an important component of the shopping cycle that historically has been largely unknown or ignored by retailers. This represents a completely different view of what is going on in terms of consumer behavior (Faulds & Raju, 2018, pp. 666-667).

### **2.1.5. Mobile Payments**

Advances in technology have enabled a broad range of latest functionalities for mobile devices, supporting several mobile financial services, such as bill payment, proximity payments at the point of sale, account transfers, person to person transfers, remote payments to buy goods and services. Short-range contactless technologies, like Near Field Communication (NFC), are now integrated into many mobile phones and portable devices. Assuming that standardized, interconnected and widely accepted procedures are key for mobile payment acceptance, we can expect the potential reinforcement of mobile payment adoption. The widespread use of mobile phone devices and its perpetual proximity to the users make them suitable for mobile payment

scenarios without the necessity for a physical wallet, enabling smartphones true commercial value over mobile payment (Oliveira, Thomas , & Baptista, 2016, p. 3).

Mobile payment systems are suitable for many kinds of micropayments in the form of daily expenditures and virtual content. In a mobile payment plan, the mobile network operator assumes the responsibility for billing, similar to the role of a credit card provider. Their major value proposition is convenience. They basically replace the use of change and credit cards in routine micropayments and virtual content purchases such as Web site memberships or online content downloads. They are especially useful for targeting the expenditures of consumers who do not have credit cards such as youngsters (Varanlı, Toker, & Yılmaz, 2010, pp. 29-30).

Mobile payments allowed consumers to eliminate the need to use cash, offering convenience and speed, performance and transfer of secure information between devices, from single or individual transactions to the environment with a high volume of payments, like restaurants or large retailers. Both traders and consumers advantage from considerable operation time reduction, with clear productivity gains. Mobile payment is experiencing rapid growth in many markets as more and more commercial entities find out the potential of it (Oliveira, Thomas , & Baptista, 2016, p. 3).

Dahlberg et al. (2008) defined the mobile payment as “payment for services, goods, and bills with a mobile device such as smart-phone, mobile phone, or personal digital assistant by taking benefit of wireless systems and other communication technologies”, Even though some sources refer to mobile banking and mobile payments as being equal, or that some of their characteristics overlap, they are quite distinguished systems in terms of the number of customers involved; the mobile banking is a simple direct consumer-bank communication while the mobile payment is a three-party process between the merchant, customer, and bank (Oliveira, Thomas , & Baptista, 2016, pp. 4-5).

#### **2.1.6. QR Code (Quick Response Codes)**

One new smartphone-related technology that might be of significant potential interest, because it is the basis for pull marketing communication in which consumers can practice control over the messages and content that they receive, is QR codes. QR

codes are two-dimensional barcodes that are placed on books, leaflets, posters, billboards, and other public objects (Watson, Carthy, & Rowley, 2013, p. 841). QR Codes allow consumers to quickly scan the bar code and view the ad on their devices (Varshney & Joy, 2015, p. 45). For example, scanning a QR code provides a consumer with a link to a mobile website, reveals text or connects to a customer services center (Watson, Carthy, & Rowley, 2013, p. 841).

Quick Response code is one of the most innovative modes of mobile marketing. QR code is a 2-dimensional code that once scanned using smartphones with a scanning application software such as Scan Life, i-nigma and an active Internet connection-connects the exploiter to some specific on-line content, delivering electronic coupons, etc. Denso-Wave from Japan was the first one to use QR code back in 1994, for quick and suitable tracking of the inventory. Later on, marketers became cognizant of QR code functionalities i.e. its advantages in usage – they found out that QR code functions could be transferable to marketing sphere i.e. that they offered the potential to connect easily and rapidly with customers on-the-go (the quick part of QR code) and cheer customer engagement (the response part of QR code) (Bamoriya, 2014, p. 20).

QR code offers a lot of benefits to marketers because of its immense technological capabilities. Thus, it is easier for both marketers and mobile users to acquire the tools for generating, scanning or decoding of the QR codes. QR code is omnidirectional and scan-able, which means that in contrast to barcodes, it can be scanned from every angle, thus providing further customer facilitation. QR codes as well as offer excellent versatility to marketers as they can be maximized to the size of a billboard or minimized to the size of a stamp. Even these white and black codes can easily be transformed into “designer” QR code by adding paints and putting logos or brand names at the forefront of the code image. Besides, QR code makes possible marketers to track the number of scans on each code and recognize the source medium of the scan. This is clearly very helpful to marketers in measuring consumer activity at the micro-level. Finally, at their finest, QR codes can link the online and offline worlds as a QR code offers the chance of integrating online and offline content. Thus, the QR code enables markets to exercise innovative multichannel marketing. For consumers, it means offering an exciting avenue of interactivity, engagement and

exploration. All of the things that mentioned demonstrates that the QR code can become the focal core of enormous customer engagement tools (Bamoriya, 2014, p. 21).

Nowadays, the usage and analysis of QR codes have become one of the most extensive marketing trends, especially in Japan, USA, and Western Europe. Furthermore, with the adoption of Smartphones, the popularity of QR code is quickly increasing across the world. Besides, 11 out of 50 Fortune companies incorporated QR codes into their marketing strategy. Surely, tremendous growth has been realised worldwide over the last few years, in both QR code usage and scan (Bamoriya, 2014, p. 21). Basic QR code scanners can now be downloaded as smartphone applications and used to scan any QR code that anyone publishes, from anywhere (Çınar, 2015, p. 9). QR code image can be seen in figure 2.1.

**Figure 2.2: QR Code.**



### **2.1.7. Mobile Coupon**

The mobile coupon service emerged with the development of mobile communication technologies and mobile internet. Due to its technological advantages, the mobile coupon service improved coupon redemption rates to ten times higher than paper-based coupons. This improvement encouraged many firms to enter into mobile coupon marketing and offer their services to consumers (Liu & et al, 2015, pp. 473-474). Mobile coupons in sales promotion play a vital role, and marketers can predict a higher usage of mobile compared to their paper-based equivalents (Barutçu, 2007, p. 29). Mobile coupon applications also obtained the attention of practitioners in China.



For instance, Alibaba, the largest internet company in China, has invested two rounds of funds in a local living service provider to expand its mobile coupon app, namely, DDcoupon (Liu & et al, 2015, p. 472). Compared to online coupon services and paper-based coupons, mobile coupon applications overcome constraints such as the need to sort out, print, and carry coupons when consumers want to redeem them. They enable consumers to search coupons ubiquitously and redeem coupons through paperless means. However, consumers need to take a privacy risk because of their personal information, such as their location and consumption preferences, may be tracked by service providers. Mobile network traffic fees are also paid to search and acquire coupons. Thus, consumers must be rewarded sufficiently by mobile coupon applications to equilibrate their sacrifices so that they will accept them (Liu & et al, 2015, p. 474).

Among different mobile services, mobile coupon service as a multichannel marketing tool may encourage customers to visit retail or online stores and make instant purchases (by providing time-sensitive offers) while they are shopping (Ha & Im, 2014, p. 442). In the early stages, mobile coupon service mostly delivered mobile coupons in forms of SMS (Multimedia Messaging Service) and WAP (Wireless Application Protocol) (Liu & et al, 2015, p. 474). Today, retailers offer mobile coupon services using various technologies such as text messages, location-based mobile applications, and 2D bar codes which are redeemable for online and store shopping (Ha & Im, 2014, p. 442).

Mobile coupons boast at least three benefits: locating by mobile phone signals, efficient handling by scanning the coupon's bar code at the point of sale and time sensitivity (Barutçu, 2007, p. 29).

### **2.1.8. Mobile Entertainment**

The mobile device has become a significant media and entertainment platform. In the mobile entertainment industry, there are several entertainment services like listening to music, gambling, watching television, video and sport matches, playing games, etc., which have set a stage for an explosion of the mobile entertainment industry. There is no doubt that mobile entertainment services will be one of the most significant drivers in mobile marketing (Barutçu, 2007, p. 29).

Mobile games allow users to engage in interactive single-player or multiplayer games against other remote users regardless of time and location restrictions. There are a variety of game genres that are currently on the market ranging from simple time-killer puzzle games to more elaborate action adventure games. Mobile games can be either downloaded to the mobile handheld device as an application or played over an Internet portal. In either case mobile games can be used by a company for advertising or community building purposes (Varanlı, Toker, & Yılmaz, 2010, p. 29).

Mobile games provide convenient entertainment for people on the move and provide an innovative means to promote products, brands, ideas, and services. More importantly, multiplayer games have the potential to foster community building by allowing interaction between game players; in other words, by providing a group of people a pleasant experience to share (Varanlı, Toker, & Yılmaz, 2010, p. 29).

#### **2.1.9. Location-Based Mobile Services**

Location-based mobile services are an important part of mobile commerce in B2C. The immense majority of uses for location-based mobile services are doubtlessly to be commercial, involving the provision of specific services adapted to customer profiles and their location. Location-based mobile services are the services in which the location of an individual or an object is used to form or focus the application or service. Questions like ‘what is near me?’ or ‘where is the nearest restaurant?’ can be answered with these location-based services in mobile commerce. One of the most promising applications of mobile commerce is the ability to identify the customer’s location at a point in time. By using the information on the users’ identity, position, profiles and access time, GSM operators or retailers can offer the users optimal information or services, which are contextually relevant to them at the point of need, and the customers’ location data can be used for direct marketing purposes (Barutçu, 2007, p. 29). For example; Akbank, a Turkish bank, launched a location-based campaign in which the company promised its cardholders to pay back 10 percent of the credit card expenditures they incurred abroad. Leveraging location-based services, Akbank identified Wings (credit card) cardholders who were abroad and sent permission-based SMS messages informing these specific customers about the campaign. The campaign has successfully increased the Wings usage rate abroad.

Leveraging location-based services, Garanti Bank, another Turkish bank, provides mobile users with the addresses of its branches and ATMs within the 4 km radius around the mobile user. All the mobile user has to do is to click the related link in the mobile Internet site of Garanti Bank (Varanlı, Toker, & Yılmaz, 2010, p. 33).

Location based advertising is time sensitive in a way that advertisement can be sent to signed up client when this client pass through a certain point of purchase. (Çınar, 2015, p. 8). Location based marketing phenomenon can be visualized as in figure 2.3.

**Figure 2.3: Location Based Marketing**



## **2.2. HOW MOBILE MARKETING IS USED**

### **2.2.1. GSM (Global System for Mobile Communication)**

GSM, is a mobile communication system in public language. GSM was first introduced in Finland. The GSM system consists of several independent units. Basically, a GSM network consists of 3 basic parts (mobile station, base station, mobile services switching center). GSM developed in Europe for use in Europe, It is a standardized digital, cellular, mobile communication system from the (ETSI) European Telecommunications Standards Institute. In recent years, this system has surpassed the initial target and has found widespread use in America, Asia and Australia (Şevket , 2002, pp. 3-10). Today, GSM is already the widest deployed digital mobile communication system worldwide (Tseng & et al, 2006, p. 47).

Global System for Mobile technology has a non-linear and complicated system structure. Normally, establishment, optimization, operation, and management of such

technology need great work (Biroğul, Elmas, & Çetin, 2011, p. 2421). The most important feature of GSM compared to analogue telephone systems stems from the security system. The information security of the subscriber is guaranteed by encrypting the conversations in GSM. The possibility of entering the system from outside by listening to conversations is negligible (Arslan & Arslan, 2012, p. 50). Another advantage, GSM can provide better voice quality, SMS, network capacity, data encryption and roaming, national and international features (Tseng & et al, 2006, p. 47). GSM uses radio frequencies efficiently and the system is more resistant to cellular disturbances. In addition, GSM networks of other countries of the world can be used with international roaming (Arslan & Arslan, 2012, p. 50).

### **2.2.2. SMS (Short Message Service)**

The mobile device has recently appeared as a potential new channel for marketing communications, drawing tremendous interest from both marketers and customers to mobile marketing. One way of mobile marketing that has received significant attention is short message service (SMS) marketing (Smutkupt, Krairit , & Khang , 2012, p. 539).

The short messaging service (SMS) of mobile phone devices has been actively used by recent marketers to launch a new media in the consumer communication channel structure. An SMS containing advertisements or any promotional offers or relational marketing themes via this virtual mobile channel can be constantly sent to prospective customers at a minimum price. Consumers can access these commercial messages delivered by the product/service providers at any time and from anywhere (Sharee & et al, 2017, p. 257).

Short message service (SMS), can be classified as traditional advertising, direct marketing or an interactive medium allowing for two-way communication between an organization and customers. Organizations are starting to use this medium as a technique of sales promotion and send coupons to consumers' mobile phones via SMS. This has proven to be an efficient shape of sales promotion as consumers have their mobile phones on them at all times and have the coupon available when required (Waldt, Rebello , & Brown, 2009, p. 445).

The phenomenal victory of SMS marketing is attributed to some of its main features including its personal and unobtrusive nature, relatively low cost, simplicity, support for interactive communications and near real-time delivery, and location-based potential. Such unique characteristics allow companies to respond to customer needs more efficiently and to make unprecedented forms of products and services with the potential to alter the nature of competition in the industries (Smutkupt, Krairit , & Khang , 2012, p. 539). SMS has considerable potential value for creating affirmative attitudes in the direction of mobile marketing, which is supported by the principle of expectation-confirmation theory (ECT). The total content of the message transmitted by the cell phone SMS results from a synergistic and comprehensive image of the statement based on the wording, organization, presentation, and structure of the message (Sharee & et al, 2017, p. 258).

SMS technology allows marketers to send messages to consumers through their mobile handsets and can be regarded as a type of “one-to-one” marketing. SMS technology enables brands to promote services, goods, and ideas via personalized messages that are sent directly to individual consumers. SMS has been used, for instance, for voting on radio shows or reality television, tracking deliveries, and distributing mobile discount coupons (Watson, Carthy, & Rowley, 2013, p. 841). For example; Akbank, a Turkish bank, launched an innovative mobile campaign in which it accepted personal credit applications via SMS. All the users had to do was text their national identity number to the bank and wait for the bank's response. The bank promised to respond to all SMS credit applications within 20 minutes without any further questions. Akbank first initiated the campaign with its own client database, and then went nationwide using the permission-based subscriber database of Turkcell. The campaign was a great success. The return rate was 20 percent, which was an excellent number when compared to the prior experience of the bank with traditional mail and e-mail with a return rate of only 1 out of 2 percent. The company not only facilitated credit demand from the existing customers, but it also introduced new valuable customers to the bank as well (Varanlı, Toker, & Yılmaz, 2010, p. 10).

Xu et al. (2003) identified three consistent success indicators for SMS messaging: (Carroll & et al, 2007, p. 81).

- The cost-effectiveness and interoperability of the wireless infrastructure
- The high penetration of mobile phones
- The relatively low cost of the SMS messaging service.

Marketing through SMS not only creates opportunities but also offers several challenges that must be resolved before such opportunities can be fully explored. As marketers consider the branding effect to be the most critical result and given that the cell phone is a very personal item, sending commercial messages through this channel can undoubtedly irritate customers and be seen as a violation of their privacy. As a result, customers may develop a pessimistic attitude toward the advertised brand and not respond to the message (Smutkupt, Krairit , & Khang , 2012, p. 540). Permission is regarded as one of the serious factors for mobile marketing acceptance and prosperity. Permission-based SMS is defined as a situation where the target customers of mobile messaging give marketers their permission to receive messages. Permission is very important for mobile marketing because it reduces customer irritation. Without permission, messages are perceived as spam. The effect of mobile spam is huge, as it negatively influences customer attitudes and lower response rates toward the messages, creates negative word of mouth and lowers brand perception (Smutkupt, Krairit , & Khang , 2012, p. 541).

If a certain firm aims the strategic objective to address particularly at a specific target audience, messages via cell phones can be the ideal instrument. The appearance of the services "opt-in" SMS has the ability to rapidly inform the subscribers of the accessibility of a promotion or of an innovative service. It is an efficient medium to generate traffic by motivating a determined target to contact a call center or to visit a point to sell. The basic concern has to be targeting the right consumer with the right message content, otherwise, particularly in time, the consumer response is much more dramatic compared with the situation of other marketing channels (Cătoiu & Gârdan, 2010, pp. 732-733).

### **2.2.3. MMS (Multimedia Messaging Service)**

MMS is so similar to SMS, except that it fundamentally supports graphics, photos, video, and audio. Although MMS and SMS are both messaging technologies,

there is a dramatic difference between the two in terms of content. The average size of an SMS message is much smaller than that of the MMS message. It carries more dynamic content such as audio clips and then SMS. Consequently, MMS provides mobile advertisers with additional tools to increase consumer experience with the message such as the ability to offer wallpaper that promotes a brand or product. For instance, a music fan can send an SMS message to short code in order to receive an MMS with a video clip of her/his favorite artist. MMS, with the growing base of camera phones, also increases consumer interaction with the advertiser by allowing consumer participation. As built-in cameras are common in most of the mobile hand devices, MMS can increase its effectiveness as an interactive advertising medium (Jung, 2009, pp. 7-8). Marketers can use these multiple media elements for their promotional messages (Varshney & Joy, 2015, p. 45). Marketers may increase the awareness of their new product by running a viral ad campaign for the product through a cell phone or creating a contest of user-generated content for their product (Jung, 2009, p. 8).

Richer and more compelling content can be delivered to existing and potential customers via MMS. Ringtones both in the form of traditional mobile ringtones and MP3s, are delivered via MMS and are perceived as a means to make personal statements or of self-expression for consumers (Varanlı, Toker, & Yılmaz, 2010, p. 16).

#### **2.2.4. WAP (Wireless Application Protocol)**

WAP is a technology platform used to create Websites (mobile websites) that are easily accessible from a mobile phone. As mobile devices are smaller, slower, and have less memory than personal computers, WAP is designed to maximize the experience of internet applications within the restricted environment of mobile phones. The WAP was developed by the WAP Forum, an industry group that was established in 1997. It has since been consolidated into the Open Mobile Alliance in 2002. The WAP works in a way similar to the internet. That is, the user of WAP can surf the marketer's website designed to fit in a small mobile device screen with a range of content. For instance, consumers can play games and learn trivia by visiting mobile marketers' WAP sites and search for information about products or mobile marketers'

commerce locations through their mobile devices. Nowadays, WAP is widely employed by many mobile marketers in different ways. For instance, there are three various types of mobile WAP ads currently accessible. The first type is a text link ad within the WAP site. The text link is a clickable ad consisting only of text and this can be placed anywhere within the WAP content. The second type is an image merely ad within the WAP site. The image merely ad is similar to the banner ad on the internet and provides a clickable image link to respond to advertisers' messages by directing the consumer to advertisers' mobile websites or placing a call to the advertisers. The third type is a combination of clickable text and image link within the WAP site (Jung, 2009, pp. 9-10).

WAP is based primarily on current Internet protocols and can work with wireless devices and applications. Handheld, digital, wireless devices such as mobile phones, handheld PCs, bidirectional radio devices and smartphones can use WAP. Using mobile terminals with WAP, via the Internet, It is possible to access services such as booking and purchasing tickets for transport and entertainment programs, e-mail, direction and location finding, traffic, news and sports information, e-commerce and banking services, guide information and corporate intranet access (Arslan & Arslan, 2012, p. 54).

#### **2.2.5. Bluetooth**

Bluetooth is a short-range (about 33 feet) wireless technology that allows users to download applications, content, and other data to their mobile phones. Mobile advertisers can use Bluetooth not only to deliver advertising messages but also to deliver incentives such as free ringtones, mobile coupons, and free wallpaper when a consumer walks past a billboard or kiosk (Jung, 2009, pp. 10-11). Bluetooth wireless proximity-based marketing is such as television advertising on a cable that is used via network channels. The ad or a message will merely display for that particular location or area which is picked up by the wireless devices (Varshney & Joy, 2015, p. 45).

Bluetooth advertising has two major advantages when compared to other types of mobile advertising. The first advantage of Bluetooth advertising is its low hardware and campaign cost. Because network operators do not control Bluetooth communication, transmission is completely free for both the sender and the receiver.



For advertisers, Bluetooth advertising provides opportunities for marketers with small advertising budgets, as there is no per customer cost for advertisers to send their messages. In addition, there is no cost for consumers to receive advertisers' messages since there is no airtime charge for the message or data transfer via Bluetooth. Therefore, it is a useful technology to target price-sensitive demographics such as teens and young consumers. The second advantage of using Bluetooth advertising is its ability to protect consumer privacy. Since Bluetooth connections are anonymous and must be allowed by mobile phone users, there are no legal issues regarding the transmission of unsolicited messages. This makes Bluetooth advertising more universal, easier to implement, cheaper, and seen by customers as less intrusive than other types of mobile advertising (Jung, 2009, pp. 11-12).

Bluetooth marketing can be explained as the placement of Bluetooth access points in any public place like airport, train station or any live event, and when a consumer walks by this device and the Bluetooth is enabled on mobile device access point request automatically request interaction with a mobile device. If the user accepts the request Bluetooth access point sends rich content like game, ringtone sound, picture or any other form of content to the users' phones (Çınar, 2015, p. 8). Bluetooth wireless proximity-based marketing phenomenon can be visualised as in figure 2.3.

**Figure 2.4:** Bluetooth wireless proximity based marketing.



**Source:** (GeoMarketing, 2016)

### **2.1.6. GPS (Global Positioning System)**

GPS and navigation devices receive signals to determine where the device is currently located on the earth. They have maps that address the user to reach the desired destination. Marketers can use this for providing location-based services. In location-based marketing, the user of the mobile device sends a message according to the location through GPS technology (Varshney & Joy, 2015, p. 45). GPS enabled mobile devices to allow marketing professionals to aim customers by location. Researchers have illustrated the importance of location targeting in mobile advertising, suggesting that geographical targeting can get better customer responses (Feng, Fu, & Qin, 2016, p. 335).

GPS is the name given to the satellite-based radio location system. It is a system that provides a very accurate 24-hour position and route information wherever in the world. GPS allows you to mark your current location and return to the specified location. It works everywhere in the world, except in confined spaces and where it is difficult to receive signals such as underwater (Arslan & Arslan, 2012, p. 49).

### **2.1.7. GPRS (General Packet Radio Service)**

GPRS allows data to be transmitted over existing GSM networks at speeds up to 28.8 kb (kilobytes) per second, up to 115 kb; is a mobile communication service that provides uninterrupted internet connection to a mobile phone, laptop, PDA and other mobile device users. GPRS technology provides the user with high-speed access as well as inexpensive communication charges, not by connection time but by the amount of data sent and received. In this system, subscribers pay only the amount of data they send and receive, not according to the time they are connected to the internet. In addition, data can be exchanged as long as it is within range. To take advantage of this technology, it is necessary to integrate GPRS hardware and software into the mobile network and service provider infrastructure and to use GPRS compatible mobile phones as in WAP applications. Applications supported by GPRS can be summarized as simultaneous chat, visual information transmission, still image transmission, motion image transmission, web browsing, file sharing, voice, corporate e-mail, Internet e-mail, vehicle tracking systems (Arslan & Arslan, 2012, pp. 54-55).

### **2.1.8. RFID (Radio Frequency Identification)**

RFID is the general name of technologies that automatically recognize people or objects using radio waves. The RFID system consists of a label, a reader and a computer that regulates the flow of information. In the system where the data exchange between the tag and the reader occurs with radio frequency, it allows a silent communication between the object and the things. It is predicted that RFID tags and readers, which communicate without seeing each other and from long distances, will replace barcodes with these features in the near future. RFID has many advantages over barcode technology (Arslan & Arslan, 2012, pp. 57-58):

- To read the barcode, it must be turned to the scanner. In RFID technology, no line of sight is required for recognition, the RFID tag can be read as long as it is within range of the reader.
- If a label is torn, dirty, or broken, there is no way to identify the product with the barcode. There is no such problem in RFID.
- In standard barcodes, only the manufacturer and the product can be identified, not the product itself. With RFID technology, it is possible to determine which product's expiration date will come first. RFID tags can store much more information than barcodes.

For example, in Walmart stores, the system, which has been implemented since the beginning of 2005, has a passive RFID tag on every product sold in the store. When customers come to the cash register with their shopping carts, they see the total amount on the screen without emptying the products in the basket and pass their credit card through the POS machine and complete their shopping. In the RFID system, which also provides great security against theft, it triggers the alarm system when a product is transported to a place where it should not be, passed through the safe without payment, or the label is removed from the product (Arslan & Arslan, 2012, p. 58).

### **2.1.9. WCDMA (Wideband Code Division Multiple Access)**

W-CDMA is a broadband radio technique that provides much higher data rates (2Mbit / s) than the radio techniques used today and the use of a highly efficient radio waveband. The higher bandwidth provided by W-CDMA achieves the full potential

of 3G. For example, W-CDMA can recognize simultaneous access to some audio, video, and data services (Arslan & Arslan, 2012, p. 57).

#### **2.1.10. UMTS (Universal Mobile Telecommunications System)**

UMTS is the next generation communication technology that will take multimedia applications to a mobile area by taking advantage of a new frequency band and more bandwidth unlike the mobile technology developed to date. The availability of bandwidth, as well as improving the quality of mobile communications, it is the first step of 3G technology that will enable the mobilization of almost all the vehicles (TV, PC, Phone) used in one device (Arslan & Arslan, 2012, pp. 56-57).



## CHAPTER 3

### 3. MOBILE ACCEPTANCE MODELS

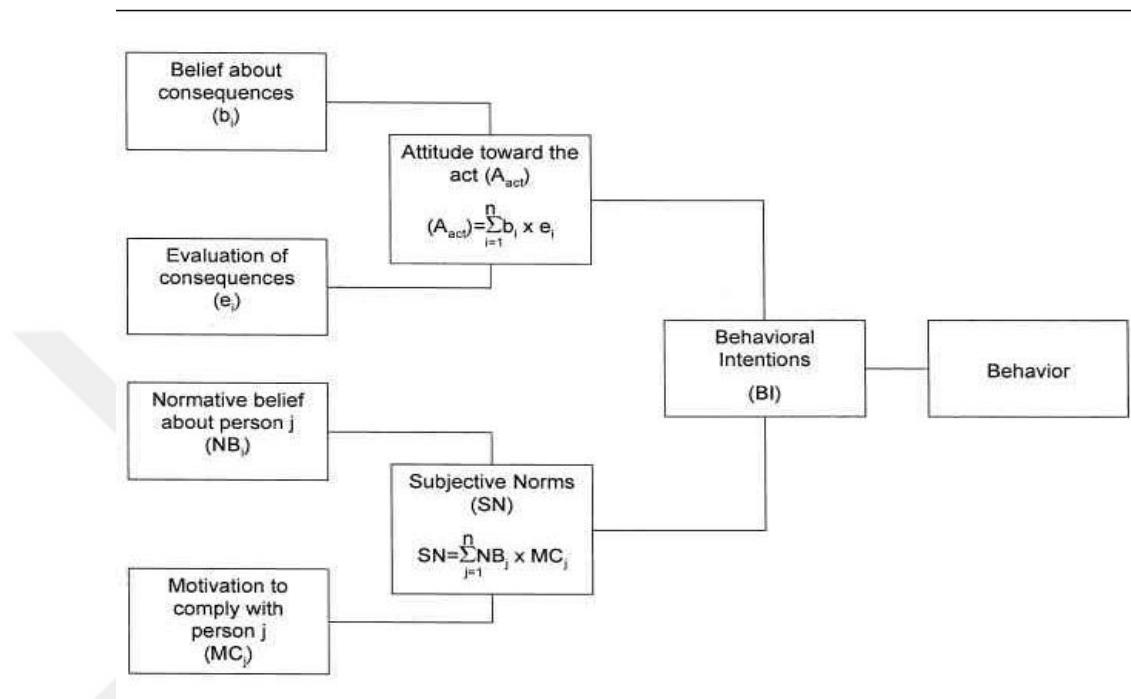
Mobile marketing, which can be known as the up and coming age of E-marketing, is increasingly more typical in the present society. The quick improvement of modern wireless communication technology, combined with the undeniably high infiltration pace of the Internet, is advancing mobile marketing as a huge application for the two endeavors and customers. For mobile clients, the high level data and correspondence technology has guaranteed them "anyplace, whenever, at any rate" access of data for work and individual use. It gives freedoms to convey mobile services which support mobile activity and exchange, and interaction help of individual routine exercises. Some specialists on mobile marketing recommend that customers have an overall interest towards mobile marketing applications. Online purchase and transactions, Transaction history enquiries, email checking, electronic tickets, downloading, are regular potential mobile marketing applications. So, in this chapter, we will clarify the individuals' behavior and expectation of the reception of innovation and mobile technology by taking a gander at certain significant models and theories, such as, theory of reasoned action, theory of planned behavior, technology readiness index, technology acceptance model and unified theory of acceptance and use of technology, which have been proposed by earlier investigations as material reference models with regards to mobile technology reception (Gao, Krogstie, & Gransæther, 2008).

#### 3.1. THEORY OF REASONED ACTION (TRA)

The theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) posits that behavioral intentions, which are the immediate antecedents to behavior, are a function of salient information or beliefs about the probability that accomplishing a particular behavior will lead to a specific result (Madden, Ellen, & Ajzen, 1992, p. 3). Or the theory of reasoned action (Fishbein & Ajzen, 1975) suggests that people consider the consequences of alternative behaviors before engaging in them and that they select to perform behaviors they associate with desirable outcomes. In the model, behaviors are determined by a person's intention to carry out the behavior. Fishbein and Ajzen suggest that behavioral intent (BI) is derived from two

factors: (1) attitude toward the behavior, and (2) subjective norms (or perceived social pressure associated with the behavior) (Bang & et al, 2000, p. 453). A diagram of the TRA is shown in Figure 3.1.

**Figure 3.1:** Theory of Reasoned Action (TRA)



**Source:** Bang & et al, 2000, p. 453

Within the TRA framework, behavioral intention, which largely determines real behavior, is an increasable function of two variables: attitudes (negative or positive evaluation of performing a behavior), and subjective norms (perceived influences that others may have). In common, an increase in attitude and subjective norms leads to a stronger intention to perform the behavior (Nguyen & et al, 2018, p. 3). According to TRA, attitude is extracted from two factors: a group of beliefs that one holds about the object of the behavior ( $b_i$ ), and valenced evaluations ( $e_i$ ) of the beliefs. Beliefs are based on knowledge or that which the individual perceives to be right. Specifically, TRA posits that attitude toward the behavior (Act) is the summation of the product of the beliefs that the behavior leads to salient outcomes and the evaluation of these salient consequences ( $b_i e_i$ ) (Bang & et al, 2000, p. 454). Attitude is an individual's unfavorable or favorable feeling about performing a specific behavior. These beliefs are called behavioral beliefs. An individual will intend to perform a definite behavior when she or he evaluates it positively. Attitudes are

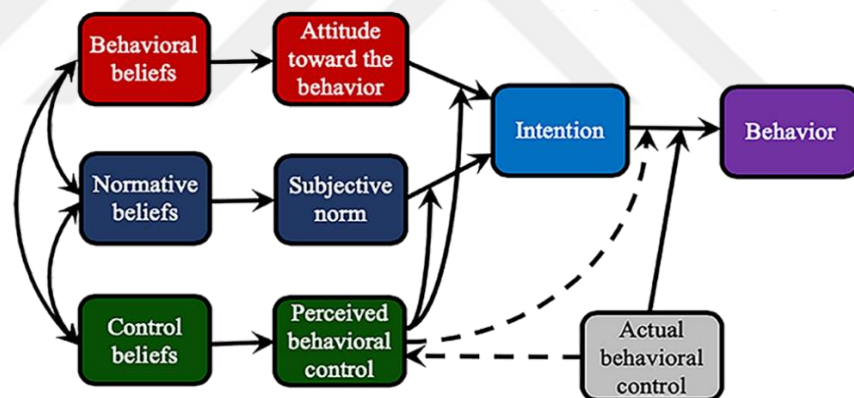
determined by an individual's belief about the outcomes of performing the behavior (behavioral beliefs), weighted by her/his evaluation of these outcomes (outcome evaluations). Thus, attitude is an individual's salient belief as to whether the consequence of her or his behavior will be positive or negative (Nguyen & et al, 2018, p. 3). Another component of attitude formation in the TRA is the subjective norm. This side of the model offers that the subjective norm associated with behavior (B) is the total of the product of the belief that relevant others think the individual should agree to the behavior and the motivation to comply with relevant others. (Bang & et al, 2000, p. 454). Subjective norms are presumed to be a function of beliefs that individuals approve or disapprove of the behavior. Beliefs that underlie subjective norms are normative beliefs. Normative social influence is defined by the influence of other people which leads us to conform in order to be accepted and liked by them. Even though an action may not be accepted or approved by an individual, normative social influence places pressure on an individual to comply with the group's social norms. Normative social influence has been shown to impose a high convincing influence on individuals. An individual will intend a behavior when she/he perceives that important others think she/he should do so. Important others might be a spouse, the physician or close friends, among others. This is determined by inquiring respondents to judge how probably it is that most people who are important to them would approve or disapprove of their behavior (Nguyen & et al, 2018, p. 3).

As noted by Fishbein and Ajzen (1975), variables external to the model are presumed to influence intentions merely to the extent that they affect either attitudes or subjective norms. Fishbein and Ajzen (1975) specify three limit conditions that can affect the magnitude of the relationship between intentions and behavior: (a) the degree to which the measure of intention and the behavioral criterion correspond with respect to their levels of specificity, (b) the stability of intentions between the time of measurement and performance of the behavior, and (c) the degree to which performing the intention is under the volitional control of the individual (Madden, Ellen, & Ajzen, 1992, p. 4).

### 3.2. THEORY OF PLANNED BEHAVIOR (TPB)

The theory of planned behavior is a development of the theory of reasoned action (Ajzen & Fishbein, 1980) made essential by the original models' limitations in dealing with behaviors over which people have defective volitional control (AJZEN, 1991, p. 181). Or in other words, the theory of planned behavior (Ajzen, 1985) extends the boundary condition of pure volitional control specified by the theory of reasoned action. This is performed by including beliefs regarding the possession of requisite resources and opportunities for accomplishing a given behavior. The more resources and opportunities individuals think they have control of, the greater should be their perceived behavioral control over the behavior. As in the case of behavioral and normative beliefs, it is also feasible to break up these beliefs and treat them as partly independent determinants of behavior (Madden, Ellen, & Ajzen, 1992, p. 4). Figure 3.2. Presents the theory of planned behavior.

**Figure 3.2:** Theory of planned behavior



**Source:** Ajzen, 2019.

Behavior is observable, the manifest response in a specified situation with respect to a specified target. Single behavioral observations can be congregated across times and contexts to produce a more widely representative measure of behavior. In the TPB, behavior is a function of suitable intentions and perceptions of behavioral control. Perceived behavioral control "as a proxy for actual control" is expected to moderate the effect of intention on behavior, such that a favorable intention produces the behavior merely when perceived behavioral control is strong (Ajzen, 2019).



Intention is a sign of a person's readiness to carry out a given behavior, and it is regarded to be the immediate antecedent of behavior. The intention is based on subjective norm and attitude toward the behavior, each weighted for its importance in relation to the behavior and population of interest, and their effect is moderated by perceived behavioral control (Ajzen, 2019).

Attitude toward a behavior is the degree to which the efficiency of the behavior is positively or negatively valued. According to the expectancy-value model, attitude toward a behavior is determined by the total set of available behavioral beliefs linking the behavior to various consequences and experiences. Specifically, the strength of each belief (b) is weighted by the evaluation (e) of the outcome or experience, and the products are aggregated, as shown in the following equation (Ajzen, 2019).

$$A \propto \sum b_i e_i$$

Subjective norm is that the perceived social pressure to engage or to not engage in a behavior. Drawing an analogy to the expectancy-value model of attitude (attitude toward the behavior), it's presumed that subjective norm is determined by the whole set of available normative beliefs concerning the expectations of important referents. Specifically, the strength of every normative belief (n) is weighted by the person's motivation to comply (m) with the referent in question, and also the products are aggregated, as shown within the following equation (Ajzen, 2019).

$$SN \propto \sum n_i m_i$$

Perceived behavioral control refers to people's perceptions of their ability to carry out a defined behavior. Drawing an analogy to the expectancy-value model of attitude, it's presumed that perceived behavioral control is determined by the whole set of available control beliefs, i.e., beliefs about the existence of factors that may impede or simplify the efficient of the behavior. Specifically, the strength of each control belief (c) is weighted by the perceived power (p) of the control factor, and also the products are aggregated, as demonstrated within the following equation. To the extent that it's an exact reflection of real behavioral control, perceived behavioral control can, along with intention, be used to foretell behavior (Ajzen, 2019).

$$PBC \propto \sum c_i p_i$$

Successful performance of behavior depends not only on a favorable intention but on a sufficient level of behavioral control as well. Actual behavioral control refers to the extent to which a person has the resources, skills, and other prerequisites needed to carry out the behavior in question. In many conditions, it may be hard or impossible to ascertain a person's level of actual control. However, to the extent that perceived behavioral control is exact, it can serve as a proxy for actual control and be used for the anticipation of behavior (Ajzen, 2019).

Behavioral beliefs connect the behavior of interest to expected experiences and outcomes. A behavioral belief is a subjective likelihood that the behavior will produce a given experience or outcome. Even though a person may hold many behavioral beliefs with respect to any behavior, merely a relatively small number are readily available at a given moment. It is assumed that these available beliefs - in combination with the subjective worth's of the expected experiences and outcomes - determine the prevailing attitude toward the behavior. Specifically, the evaluation of each experience or outcome contributes to the attitude in direct proportion to the person's subjective probability that the behavior produces the experience or outcome in question (Ajzen, 2019).

Normative beliefs refer to the perceived behavioral expectations of such important referent individuals or groups as the person's spouse, family, friends, and - depending on the population and behavior studied - supervisor, teacher, doctor, and coworkers. It is presumed that normative beliefs - in combination with the person's motivation to comply with the various referents - determine the prevailing subjective norm. Specifically, the motivation to comply with each referent contributes to the subjective norm in direct proportion to the person's subjective probability that the referent thinks the person should carry out the behavior in question (Ajzen, 2019).

Control beliefs have to do with the perceived existence of factors that may impede or facilitate the performance of a behavior. It is presumed that these control beliefs - in combination with the perceived ability of each control factor - determine the prevailing perceived behavioral control. Specifically, the perceived power of each

control factor to facilitate or impede the performance of the behavior contributes to perceived behavioral control in straight proportion to the person's subjective likelihood that the control factor is exist (Ajzen, 2019).

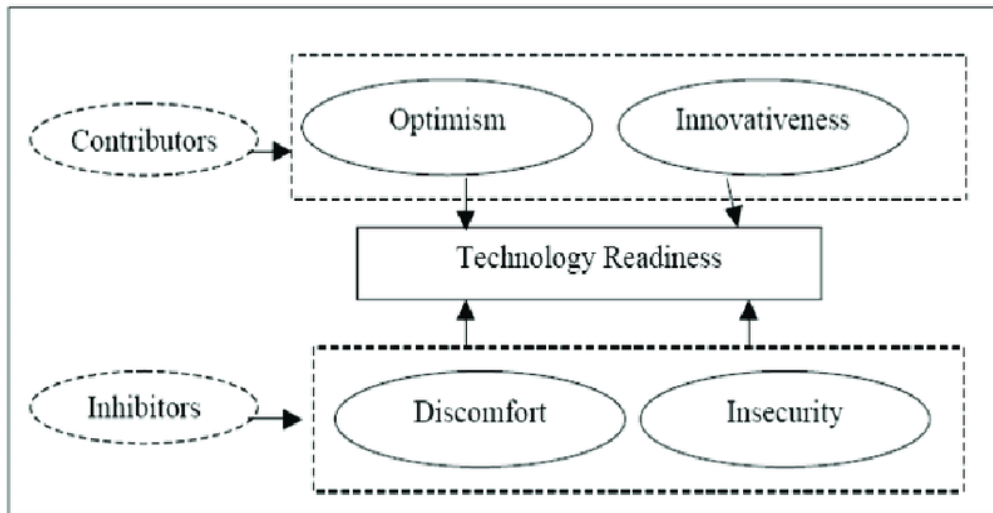
### **3.3. TECHNOLOGY READINESS INDEX (TRI)**

For some organizations, modern technologies are the way to development; promising innovations feed hopeful new item business cases that mean to change the innovation over to benefit. Nonetheless, time after time these business cases accept that the new technology is prepared for commercialization when it is moved downstream, albeit the business' advancement program incorporates practically no arrangement for surveying technology readiness. In the event that modern technology's capacity to adapt to downstream varieties in plan and assembling boundaries or client use conditions has not been thoroughly evolved, its presentation as it works its way toward the market will be erratic. Models will uncover numerous issues, some of which might be briefly changed away, just to return; the actual change may prompt new issues. Fabricate test-fix cycles will prompt more form test-fix cycles, wasting time, cash, and generosity. Disappointed clients will at last float off to contenders. The methodical execution of a technology readiness beats these issues by guaranteeing that new technology is prepared to endure the few advances that will bring it into the commercial center by wiping out or representing affectability that can create setbacks for production and client dissatisfaction (Don & Maurice , 2010). So, technology readiness represents a gestalt of mental motivators and inhibitors that aggregately specify a individual's predisposition or preference to utilize new technologies. The Technology Readiness Index (TRI), is a 36-item scale to measure “technology readiness” it defined as “people’s propensity to embrace and use new technologies for accomplishing goals in home life and at work”. The construct is multifaceted, comprising four dimensions: (Parasuraman & Colby, 2015, pp. 59-60)

- Optimism; A positive opinion of technology and a belief that it offers people efficiency in their lives, increased control, and flexibility.
- Innovativeness; an attitude to be a technology pioneer and thought leader.
- Discomfort; A perceived deficiency of control over technology and a sense of being overwhelmed by it.

- Insecurity; Mistrust of technology, stemming from skepticism about its ability to work properly and concerns about its potentially harmful outcomes.

**Figure 3.3:** Technology Readiness Index (TRI)



**Source:** (Adiyarta & et al, 2018)

As seen in the figure above, optimism and innovativeness are “motivators,” contributing to Technology Readiness, whereas insecurity and discomfort “inhibitors,” detracting from it. Furthermore, the four dimensions are relatively different, meaning that an individual can possess various combinations of technology-related traits sometimes leading to a paradoxical state that consists of strong motivations tempered by strong inhibitions (Parasuraman & Colby, 2015, pp. 60-61).

Researchers also can use technology readiness index to tier consumers into groups with Different TR levels, providing a unique lens for understanding the function of technology beliefs within the marketplace. A strong correlation between TR and interest level in (or adoption rate of) an up-to-date offering signals that the offering is inherently cutting edge and, consequently, needs specialized marketing strategies that vary from conventional strategies for marketing lower-technology offerings. Moreover, in usability research pertaining to an up-to-date technology-based offering, it's prudent to set quotas of users with varying TR levels to make confident that the offering is intuitive to all or any consumer types, not only to self-learners (Parasuraman & Colby, 2015).

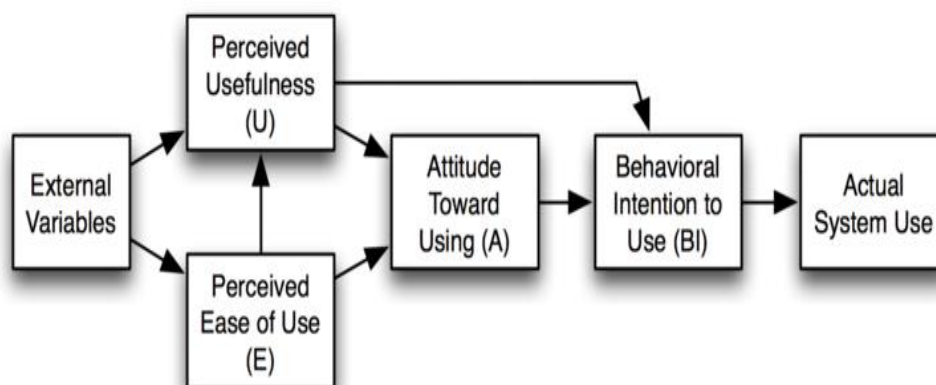
### **3.4. TECHNOLOGY ACCEPTANCE MODEL (TAM)**

There have been several theoretical models employed to study user acceptance and usage behavior of emerging information technologies, the Technology Acceptance Model (TAM) (Davis 1989, Davis et al. 1989) is the most spreadly applied model of user acceptance and usage. TAM was adapted from the Theory of Reasoned Action (TRA) (Venkatesh, 2000, p. 344). The basic purpose of TAM is to present a basis for pursuing the effect of external factors on internal beliefs, intentions, and attitudes. TAM was formulated in an attempt to gain these aims by identifying a small number of fundamental variables suggested by former research dealing with the affective and cognitive determinants of computer acceptance and using the technology readiness index as a theoretical backdrop for modeling the theoretical relationships between these variables. Supported by available theory and evidence, several adaptations to the basic TRA approach were made, based on these goals for TAM (Davis, Bagozzi, & Warshaw, 1989, p. 985).

Particularly, substantial theoretical and empirical support has accumulated in favor of the Technology Acceptance Model (TAM) (Davis et al. 1989). Numerous empirical studies have found that TAM consistently explains a considerable proportion of the variance (typically about 40%) in usage intentions and behavior which TAM compares favorably with alternative models like the theory of Reasoned Action (TRA) and also the Theory of Planned Behavior (TPB). TAM theorizes that an individual's behavioral intention to use a system is determined by two beliefs: perceived usefulness, defined because the extent to which an individual believes that using the system will enhance her or his job performance, and perceived ease of use, defined because the extent to which an individual believes that using the system is going to be free of effort. TAM theorizes that the impacts of external variables (e.g., system characteristics, development process, training) on intention to use are mediated by perceived usefulness and perceived ease of use. According to TAM, perceived usefulness is additionally influenced by perceived ease of use because, other things being equal, the simpler the system is to use the more beneficial it can be (Venkatesh & Davis , 2000, pp. 186-187).

TAM offers that two specific beliefs - perceived ease of use and perceived usefulness determine one's behavioral intention to use a technology, which has been connected to subsequent behavior. Attitude towards using technology was omitted by Davis et al. (1989) in their last model due to partial mediation of the effect of beliefs on intention by attitude, a weak direct connection between perceived usefulness and attitude, and a powerful direct connection between perceived usefulness and intention. This was explained as originating from people intending to use a technology because it was beneficial although they didn't have a positive impact (attitude) toward using. The omission of attitude assists better to understand the influence of perceived ease of use and perceived usefulness on the key variable of interest - intention. Further, TAM posits that perceived usefulness will be influenced by perceived ease of use because, other things being equal, the simpler a technology is to use, the more useful it can be. Consistent with TRA, TAM offers that the impact of external variables (e.g., system design characteristics) on intention is mediated by the key beliefs (i.e., perceived ease of use and perceived usefulness). TAM has received extensive empirical support via validations, applications, and replications by researchers and practitioners, suggesting that TAM is robust across time, populations, settings, and technologies (Venkatesh , 2000, p. 344).

**Figure 3.4:** Technology acceptance model

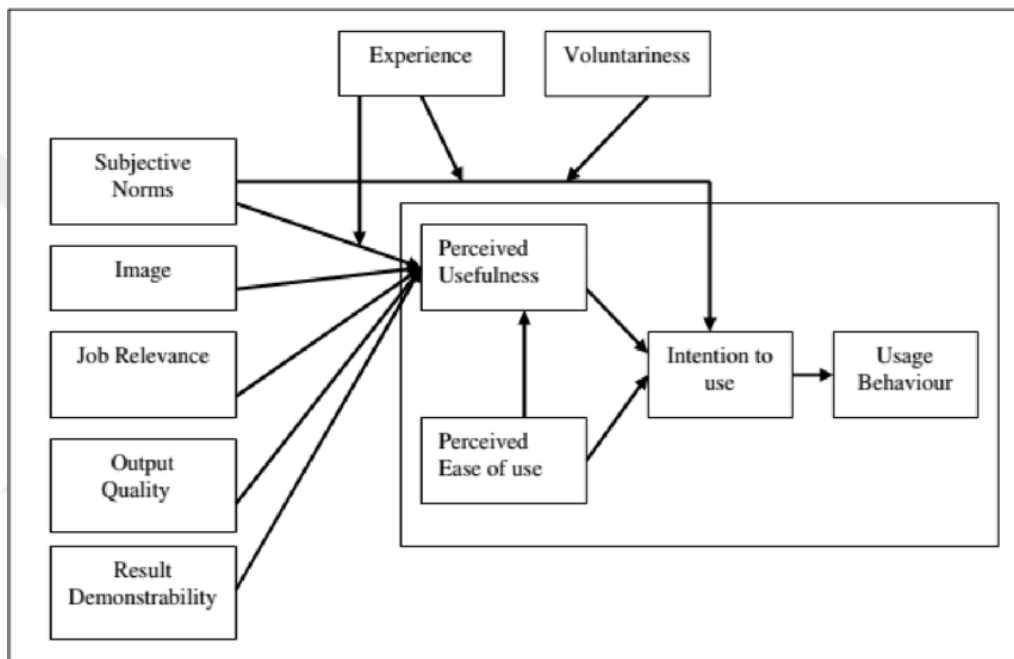


**Source:** Davis, Bagozzi, Warshaw, 1989, p. 985.

### 3.4.1. Extension of the Technology Acceptance Model

Venkatesh and Davis (2000), proposed TAM2 by identifying and theorizing about the general determinants of perceived usefulness that's, subjective norm, image, result demonstrability, job relevance, output quality, and perceived ease of use, and two moderators that's experience and voluntariness (Venkatesh & Bala , 2008, p. 276). (Figure 3.5.).

**Figure 3.5:** Extension of the Technology Acceptance Model (TAM2)



**Source:** Venkatesh & Davis , 2000, p. 188

TAM2 suggests two theoretical processes - social influence and cognitive instrumental processes - to explain the impacts of the different determinants on perceived usefulness and behavioral intention. In TAM2, subjective norm and image are the 2 determinants of perceived usefulness that represent the social influence processes. TAM2 theorizes that three social influence {compliance (mechanisms), internalization, and identification} will play a role in understanding the social influence processes. Compliance points out a situation in which an individual performs a behavior in order to achieve certain rewards or avoid punishment. Identification refers to an individual's belief that performing a behavior will elevate her or his social status within a referent group because important referents believe the behavior should be

performed. Internalization is defined as the incorporation of a referent's belief into one's own belief structure. TAM2 posits that subjective norm and image will positively influence perceived usefulness via processes of internalization and identification, respectively. It further theorizes that the impact of subjective norm on both, perceived usefulness and behavioral intention will attenuate over time as users obtain more experience with a system (Venkatesh & Bala , 2008, p. 277).

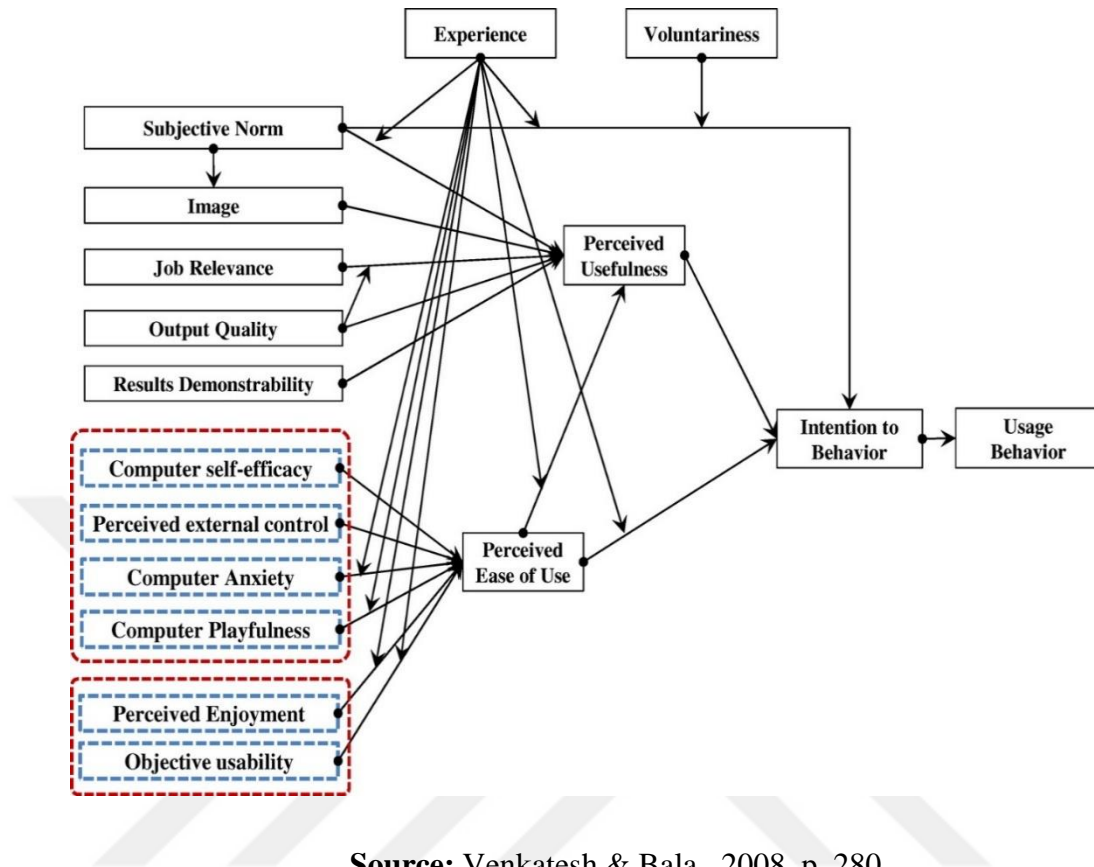
In TAM2, four constructs (job relevance, result demonstrability, output quality, and perceived ease of use) capture the influence of cognitive instrumental processes on perceived usefulness. Drawing on three different theoretical paradigms - that's, work motivation theory, action identification theory, and behavioral decision theory, Venkatesh and Davis (2000) provided a detailed discussion of how and why individuals form perceptions of usefulness based on cognitive instrumental processes. The core theoretical argument underlying the role of cognitive instrumental processes is that individuals "form perceived usefulness judgment in part by cognitively comparing what a system is capable of doing with what they require to get done in their job". TAM2 theorizes that individuals' mental assessment of the match between important work aims and also the outcomes of performing job tasks employing a system serves as a basis for forming perceptions regarding the usefulness of the system. TAM2 posits that result demonstrability and perceived ease of use will have a positive direct influence on perceived usefulness. Job relevance and output quality will have moderating influence on perceived usefulness such that the upper the output quality, the stronger the impact job relevance will be employing a perceived usefulness (Venkatesh & Bala , 2008, pp. 277-278).

### **3.4.2. Integrated Model of Technology Acceptance (TAM3)**

An integrated model of technology acceptance (TAM3), is developed with combining TAM2 and the model of the determinants of perceived ease of use, shown in Figure 3.6. TAM3 presents a perfect nomological network of the determinants of individuals' IT adoption and use (Venkatesh & Bala , 2008, p. 279).



**Figure 3.6:** Integrated model of technology acceptance (TAM3)



**Source:** Venkatesh & Bala , 2008, p. 280

Definitions of Determinants: (Venkatesh & Bala , 2008, pp. 277-279)

- Perceived easy Use; The degree to which an individual believes that using an IT will be free of effort.
- Subjective Norm; The degree to which a person perceives that most people who are important to him/her think he/she should or shouldn't use the system.
- Image; The degree to which a person perceives that use of innovation will enhance her or his status in her or his social system.
- Job Relevance; The degree to which a person believes that the target system is applicable to her or his job.
- Output Quality; The degree to which a person believes that the system performs her or his job tasks well.
- Result Demonstrability; The degree to which a person believes that the results of employing a system are observable, tangible, and communicable.

- Computer Self-Efficacy; The degree to which a person believes that she or he has the ability to carry out a specific task/job using the computer.
- Perception of External Control; The degree to which a person believes that organizational and technical resources exist to support the utilization of the system.
- Computer Anxiety; The degree of “an individual’s apprehension, or even fear, when he/she is faced with the likelihood of using computers”.
- Computer Playfulness; The degree of cognitive spontaneity in microcomputer interactions.
- Perceived Enjoyment; The extent to which “the activity of employing a specific system is perceived to be enjoyable in its own right, aside from any performance outcomes resulting from system use.
- Objective Usability; A “comparison of systems based on the actual level (rather than perceptions) of effort required for completing specific tasks”.

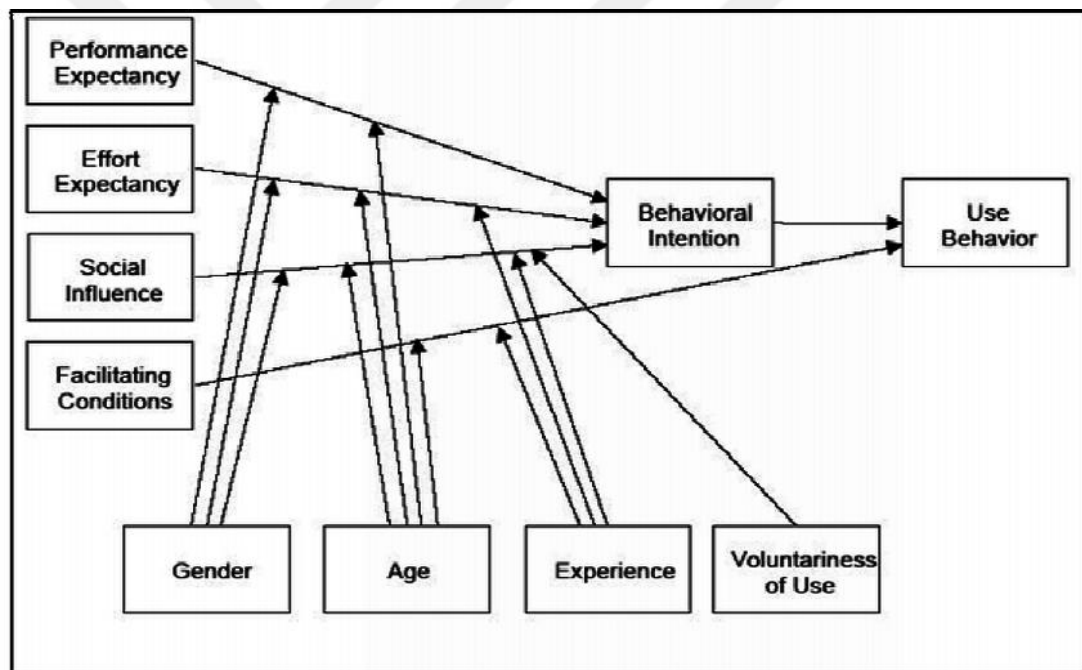
### **3.5. UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT)**

Technology Acceptance Models attempted to distinguish and explore the Behavioral aims of clients. In actuality, there is an assortment of Technology Acceptance models and hypotheses. Despite the fact that they are comparable in ideas and factors, they contrast in systems and interpretation of the wonder (Technology Acceptance). Unified Theory of Acceptance and Use of Technology was presented as an aggregation of different exploration endeavors addressed in various models and hypotheses of Technology Acceptance. The UTAUT is considered as a preliminary to bind together phrasing of factors of various models and speculations of Technology Acceptance. Driven by an inspiration to bring together these examination endeavors in Technology Acceptance literature (Ahmad, 2014), UTAUT was formulated by discusses the similarities and differences of eight prominent models (Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Model of PC Utilization (MPCU), Theory of Planned Behavior (TPB), Combined TAM and TPB (C-TAM-TPB), Innovation Diffusion Theory (IDT), Social Cognitive Theory (SCT). In other words, based upon conceptual and empirical

similarities across models, Venkatesh et al (2003) formulate a unified model to address the limitation of these model tests (Venkatesh & et al, 2003, pp. 426-427).

The theory was set up on four hypothetical builds addressing determinants of Usage Behavior or Intention to Use, which assume fundamental parts as substitutes of Technology Acceptance. These constructs are Effort Expectancy, Performance Expectancy, Facilitating Conditions, and Social Influence. Notwithstanding these factors, the theory considers additionally moderating components that moderate the relations between different factors and Intention to Use. The Moderators are Age, Gender, Experience, and Voluntariness of use. Fig 3.7 outlines UTAUT Theoretical Constructs, Moderators and interrelations (Ahmad, 2014).

**Figure 3.7:** Unified theory of acceptance and Use of Technology (UTAUT)



Source: Venkatesh & et al, 2003, p. 447

## **CHAPTER 4**

### **4. CULTURAL DIFFERENCES AND MOBILE MARKETING**

Different culture represents different behaviors and acts differently on technological changes. Individual's hopes or expectations are influenced by cultural differences. Hence, it's important to identify the role of culture within the technology acceptance and adoption studies as multi-cultural characteristics of users in a country may make considerable influences for up-to-date technological innovations like mobile marketing. A better understanding of cultural impact in the area of mobile marketing will be useful for sellers and other developers to create development during a better way and cost-effective manner to serve for culturally different people (HMBP, 2016, p. 1).

#### **4.1. DEFINITION OF CULTURE**

Culture is an abstract construct that usually means different things to different scholars. In this study, our interest is in national culture differences and that we used the following classic definition of national culture: Culture consists of patterns, implicit and explicit, of and for behavior transmitted and acquired by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and particularly their attached values; culture systems may, on the one hand, be considered as products of action, on the opposite hand as conditioning elements of further action (Aurigemma & Mattson, 2019, p. 126).

Culture represents how social groups interact with each other and how distinguishes societies, professions, institutes or even countries. Simultaneously, culture explains how people in social groups interact with up-to-date technological innovations. However, it has not been paid much more attention regarding this particular factor and less explored especially in developing countries (HMBP, 2016, p. 1).

## 4.2. HOFSTEDE'S CULTURAL DIMENSIONS

Culture is a complicated concept and it cannot be defined easily. It's hard to search out universally accepted definition for the term national culture. Hofstede has done more research on culture and has identified the importance of culture for human behavior and their decisions. Simply, he has given a definition as a collective programming of the mind. In other words, this implies that culture reflects the commonly accepted patterns of thinking and feelings of humans. Thus, human's culture is shaped with time, art, education, and their own abilities. Culture distinguishes not only a group of individuals (society or societies) but industries, organizations, professions or even across countries as well. With time passing, people form agreements for certain things, share common things, build up norms and accumulate all those and demonstrate their history. By doing so, history itself represents the accumulated culture. People in the same culture act as same way and take decisions in a similar manner for certain situations. Therefore, behavior of human could be better understood by their representing culture, so that culture reflects and influence peoples' attitude, behavior and their perception (HMBP, 2016, p. 2).

Based on this approach, cultural differences (reflecting underlying basic value orientations, beliefs, and worldviews prevalent in a context) are often best captured by identifying and describing cultures according to where they fall along with a series of dimensions. This provides us with the likelihood of measuring and comparing each context's distribution of behavior patterns, norms, attitudes, and personality variables. This measurement or quantification is based on where the people engaging in a culture, on average, score along with a series of dimensions, thereby creating a specific patterning. Among different cultural models measuring culture supported certain criteria, that of Hofstede (1980) stands out because the most comprehensive and robust in terms of the number of national cultures samples, the most significant in studying cross-cultural values, the most influential on the related literature (Saboori & et al, 2015, p. 368).

Hofstede's cultural model is based on empirical research and at the level of national cultures. In this approach, culture is: "a collective programming of the mind which distinguishes the members of one group or category of individuals from others".

As well as, a dimension is defined as “an aspect of a culture that can be measured relative to other cultures”. A cultural model during this approach groups together the societal features which were empirically found to occur in combination along a dimension. Then a score is attributed to every country on each dimension and in this manner, the differences among national cultures are measured. Hofstede's theory of cultural dimensions highlights the impact of a society's culture on the values of its members, and how these values relate to behavior. Based on a country level factor analysis, he classified the initial 40 countries along four dimensions of national cultures. The four dimensions were: Power Distance (PD), Individualism versus Collectivism (IC), Uncertainty Avoidance (UA), and Masculinity versus Femininity (MF). Within the 1980s, a fifth dimension ‘Long-term versus Short-term Orientation’ (LSO) was added to the four, on the basis of research by Canadian psychologist Michael Harris Bond centered in the Far East (Saboori & et al, 2015, p. 368).

Hofstede's metric has been popular for several reasons. Firstly, its cultural dimensions fully cover and extend major conceptualizations of culture extended through decades. Secondly, Hofstede's dimensions were empirically extended. While many other cultural constructs remained within the conceptualization stage. Thirdly, social sciences and cross-cultural studies have heavily replicated Hofstede's typology and found it to be the most significant theory of culture types. Using Hofstede's metric, researchers have found significant relationships between national culture and important geographic, demographic, economic, and political indicators of a society. This well-known metric has been widely accepted and applied at both country and individual levels in cross-cultural studies (Yoo , Donthu , & Lenartowicz , 2011, p. 2).

However, Yoo argued that measures of Hofstede's five dimensions do not represent the culture at the individual level. So that Yoo developed CVSCALE consisting of 26 items to live the culture with five dimensions of Hofstede. Adapa did research on “Adoption of Internet shopping: Cultural consideration in India and Australia”. He has used CVSCALE to measure the culture with Hofstede's five dimensions. According to findings, he has concluded as culture makes influence for the adoption to technology. Accordingly, for the continuing empirical study, CVSCALE is employed to evaluate the culture with five dimensions of Power

distance, Uncertainty avoidance, Collectivism, Long-Term orientation and Masculinity (HMBP, 2016, p. 2).

#### **4.2.1. Power Distance**

According to Hofstede power distance refers to the extent to which an individual with less power accepts and expects power inequality. Individuals who value high power distance tend to be more concerned about complying with their superiors' opinions, conforming to the suggestions or ideas from those they render as important and will fear to disagree with them. Further, these individuals are likely to leave decisions to the judgment of their superiors and comply with whatever this decision maybe (Lu & et al, 2017, p. 133).

#### **4.2.2. Uncertainty Avoidance**

Hofstede (1984) specifically indicated that at the individual level, uncertainty avoidance refers to the extent to which an individual can tolerate unpredictable situations (Lu & et al, 2017, p. 133). Or uncertainty avoidance is that the extent to which the members of a culture feel threatened by unknown or uncertain situations (Yoo , Donthu , & Lenartowicz , 2011, p. 2). Hung and Chou (2014) recently explained their findings that higher uncertainty avoidance increased fear to try innovative products and thus draw more attention to the role of perceived ease of use in determining continuous use. Srite and Karahanna (2006) believed that uncertainty can be reduced when one is near her/his peers and friends who can inform her/him of their own personal experiences. With the recognition of mobile social media, mobile shoppers can easily consult or receive opinions from their social networks at their fingertips. This helps to tie the mobile users closer to their social networks and have them more exposed to social influences (Lu & et al, 2017, p. 133).

#### **4.2.3. Individualism And Collectivism**

Individualism “pertains to societies in which the ties between individuals are loose: everyone is expected to look after herself or himself and her or his immediate family” (Yoo , Donthu , & Lenartowicz , 2011, p. 2). Or individualism refers to an individual's preference in a social atmosphere, where she/he cares about

herself/himself. Collectivism refers to a social atmosphere where individuals expect the group they are a part of to look after them in exchange for their loyalty (collectivism). Hofstede (2001) explained that individualism suggests a lifestyle in which the person tries to be self-sufficient and not dependent on others. Those who value individualism rely more on media and less on their social networks for information (Lu & et al, 2017, p. 132).

#### **4.2.4. Short-Long Term Orientation**

According to Hofstede long-term orientation refers to the fostering of virtues towards future rewards; while short-term orientation refers to the fostering of virtues related to the past, present and fulfilling social obligations. To a large extent, it is about a person's consideration for the future, for social status, for others, and for his or her own life tasks. People with long-term orientation tend to prefer future planning and cost-saving, and infrequently resort to behaviors such as perseverance or thrift toward future rewards (Lu & et al, 2017, p. 134).

#### **4.2.5. Masculinity-Femininity**

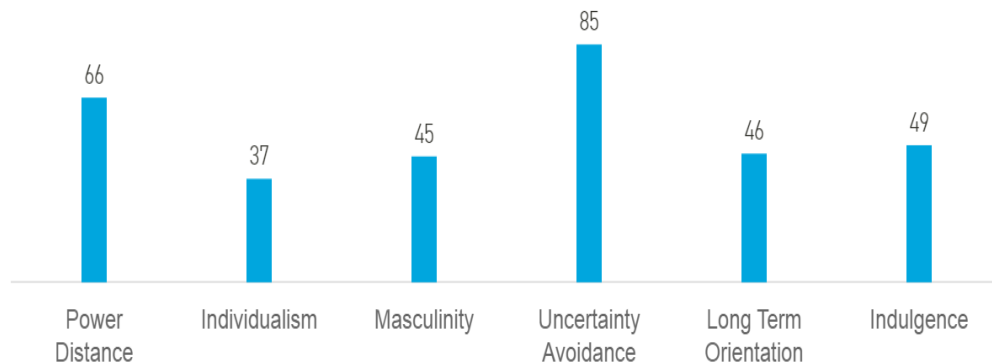
Masculinity represents “the dominant male sex role pattern in the vast majority of both traditional and modern societies.” (Yoo , Donthu , & Lenartowicz , 2011, p. 2). According to Hofstede, this dimension refers to the degree of preference for the masculine values (e.g., aggressiveness, career, achievement, material success) versus feminine values (e.g., relationships, friendly environment, nurturing, quality of life), regardless of the individual's biological gender (Lu & et al, 2017, p. 133).

### **4.5. HOFSTEDE’S COUNTRY COMPARISONS**

Geer Hofsteds offers the index score of 118 countries in his website. These index values ranging from about 0 for a small level of culture value index to about 100 for a large level of culture value index. The Afghan culture has not been investigated through the lens of the 6-D Model, but, the Turkish culture has been explored through the 6-D Model, introducing an outline of the profound drivers of this culture comparative with global cultures (Hofstede, 2021).



Figure 4.1. Turkish culture 6-D Model

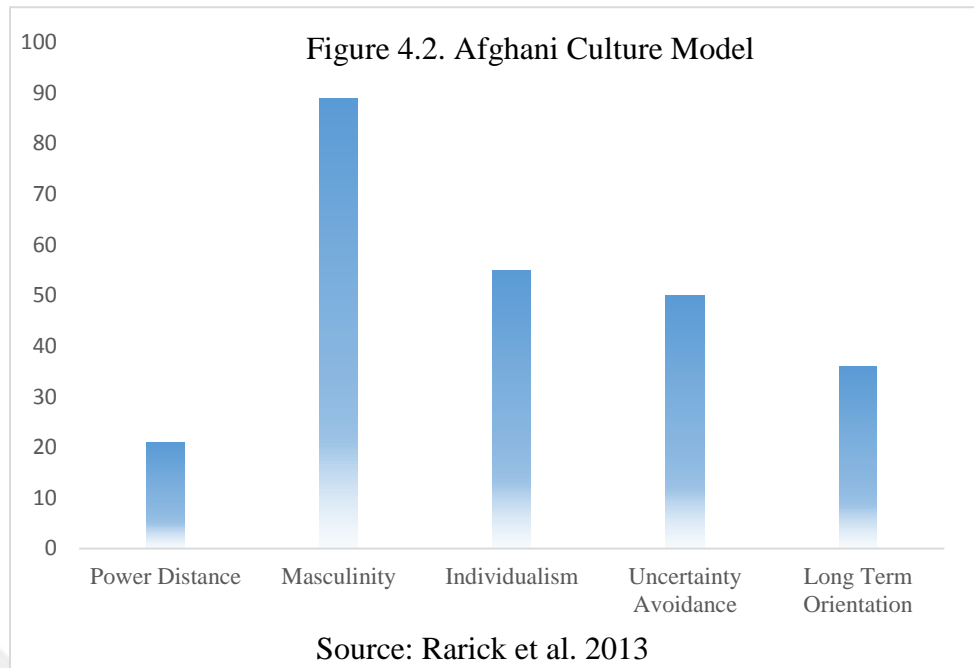


Source: (Hofstede, 2021)

As obvious in the graph, Turkey score on power distance dimension (66) which implies that the accompanying portrays the Turkish style: Dependent, progressive, bosses regularly out of reach and the ideal supervisor is a mentor. Force is brought together and administrators depend on their managers and on rules. Representatives hope to be determined what to do. Control is normal and mentality towards administrators is formal. Correspondence is circuitous and the data stream is particular. A similar design can be seen in the nuclear family, where the dad is a sort of patriarch to whom others submit. On individualism, Turkey, with a score of (37) is a collectivistic culture. This implies that the individuals have a place with in-gatherings (families, factions or associations) who take care of one another in return for dedication. Correspondence is roundabout and the concordance of the gathering must be kept up, open contentions are stayed away from. The relationship has an ethical base and this consistently has need over task satisfaction. Time should be contributed at first to set up a relationship of trust. Nepotism might be discovered all the more regularly. Criticism is consistently backhanded, additionally in the business climate. On masculinity, Turkey scores (45). This implies that the gentler parts of culture like evening out with others, agreement, compassion toward the longshot are esteemed and energized. Clashes are kept away from in private and work life and agreement toward the end is significant. Recreation time is significant for Turks, it is the point at which the entire family, faction and companions meet up to appreciate life. Status is appeared, yet this comes more out of the great PDI. Turkey scores (85) on uncertainty avoidance and consequently there is a tremendous requirement for laws and rules. To limit

uneasiness, individuals utilize a ton of ceremonies. For outsiders they may appear to be strict, with the numerous references to "Allah", however regularly they are simply customary social examples, utilized in explicit circumstances to ease pressure. Turkey's score of level of long term orientation is (46) it indicates no prevailing social preference can be construed. And lastly on indulgence, with an intermediate score of (49), a characteristic corresponding to this dimension cannot be determined for Turkey (Hofstede, 2021).

In addition, according to a study by Rarick et al. (2013), in general, the culture of Afghanistan is low in terms of power distance, high in terms of masculinity, somewhat individualistic, moderately accepting of uncertainty, and short term in its orientation toward time. As obvious in Figure 4.2. Afghanistan score of power distance index is 21. This score indicates that Afghans have a low level of acceptance of inequality among societal members. The data reveals that with respect to power distance, Afghanistan's culture is lower than Turkey. Afghanistan score of masculinity is 89. This score suggests that Afghans have a culture that values dominant, masculine behaviors. The data reveals that Afghanistan's culture is more masculine or dominant than Turkey. Afghanistan score of individualism is 55. This score suggests that with respect to individualism, Afghanistan's culture is higher than Turkey, whose culture is less individualistic and more collectivistic. Afghanistan score of uncertainty avoidance is 50. This score suggests that Afghani culture has a relatively high tolerance for uncertainty. With respect to uncertainty avoidance, Afghanistan's culture is lower than that of the Turkey. Afghanistan's Long term orientation score is 36. This score indicates that Afghans have a culture that is short-term oriented. The current data reveals that Afghanistan's long term orientation is lower than Turkey. According to Hofstede and Bond (1988), cultures with low LTOs respect tradition, yet desire quick results. There is also social pressure to keep and advance one's social standing (Rarick et al. 2013).



## CHAPTER 5

### 5. RESEARCH METHODS

#### 5.1. RESEARCH BACKGROUND

Most mobile shopping peer-reviewed articles in English-language journals published until 2012 around the world, used a modified and traditional TAM factors such as perceived enjoyment (Agrebi & Jallais, 2015) and trust. Besides, the level of acceptance is distinguished by demographic characteristics such as age, income, educational background, level of user experience and occupation (Lu & et al, 2017, p. 131). However, most of this studies obtained mixed and even contradictory results, making interpretation difficult (Groß, 2015).

Researchers declared that mobile marketing acceptance can be enhanced by providing information, accessing content, sharing content, level of risk acceptance, level of personal attachment to one's mobile phone (Sultan, Rohm, & Gao, 2009), permission marketing, trust-building, creating a sense of being in control, useful and entertaining website content (Watson, McCarthy, & Rowley, 2013), performance expectancy, effort expectancy (Kiat, Samadi, & Hakimian, 2017), perceived usefulness, attitude (Saeed & Ali Bekhet, 2018). In addition, numerous empirical studies have found that mobile marketing apps have influence on online consumers' buying behavior (Waheed & Yang, 2018).

After investigating past researches about mobile marketing around the world, I realised that mobile marketing, as a fledgling idea, has made a remarkable progress. It has become an effective way for businesses over recent years. Moreover, most of the studies focused only on a single country or countries with developed technological infrastructure. Therefore, this study is targeted to compare two different countries, Turkey as a developing country with a fast growing economy and Afghanistan as an underdeveloped country which is still grappling with cultural, ethnic, ideological, and infrastructural development challenges. In this study, we investigate the factors influencing the intentions and attitudes of Afghan and Turkish consumers towards mobile marketing applications based on TAM. In addition, in this study the Perceived risk, Technology Readiness Index

factors such as optimism, innovativeness, discomfort, insecurity, and Cultural Dimensions such as power distance, uncertainty avoidance, collectivism, long-term orientation, masculinity, are considered as influencer factors on TAM.

Venkatesh and Davis were the first researchers that they developed and tested a theoretical extension of the TAM (Venkatesh & Davis , 2000, p. 186). The TAM (Davis 1989, Davis et al. 1989) is the most extensively applied model of user acceptance and usage. TAM was adapted from the Theory of Reasoned Action (TRA) (Venkatesh, 2000, p. 344). The basic purpose of TAM is to present a basis for pursuing the effect of external factors on internal beliefs, intentions, and attitudes (Davis, Bagozzi, & Warshaw, 1989, p. 985).

Parasuraman developed and tested the Technology Readiness Index (TRI), and suggested that the TR of a given market or customer base can be scored and compared to baselines, providing implications for marketing (Parasuraman & Colby, 2015). The TRI is a 36-item scale to measure people's propensity to embrace and use new technologies for accomplishing goals in home life and at work (Parasuraman & Colby, 2015, pp. 59-60).

Culture is a complicated concept and it cannot be defined easily. It's hard to search out universally accepted definition for the term national culture. Hofstede has done more research on culture and has identified the importance of culture for human behavior and their decisions. Simply, he has given a definition as a collective programming of the mind. This implies that culture reflects the commonly accepted patterns of thinking and feelings. Therefore, behavior of human could be better understood by their representing culture, so that culture reflects and influence peoples' attitude, behavior and their perception (HMBP, 2016, p. 2).

Hofstede's theory of cultural dimensions highlights the impact of a society's culture on the values of its members, and how these values relate to behavior. Based on a country level factor analysis, he classified the initial 40 countries along four dimensions of national cultures. The four dimensions were: Power Distance (PD), Individualism versus Collectivism (IC), Uncertainty Avoidance (UA), and Masculinity versus Femininity (MF). Within the 1980s, a fifth dimension 'Long-

term versus Short-term Orientation' (LSO) was added to the four, on the basis of research by Canadian psychologist Michael Harris Bond centered in the Far East (Saboori & et al, 2015, p. 368).

The problems that analyzed in this study are divided in to three main sections: First: Which factors influence consumers' attitudes towards and intentions to use mobile marketing applications? Second: How do technology readiness and cultural values effect the acceptance of mobile marketing applications and Third: Is there any difference between Turkish and Afghan consumers regarding their acceptance of mobile marketing applications?

More specifically,

This study focuses on answering the following research questions:

1. How does Technology Readiness effect the perceived usefulness, ease of use and behavioral intention of continued use of mobile marketing applications?
2. How do Cultural Values effect the perceived usefulness, ease of use and the actual use of mobile marketing applications?
3. How does perceived risk effect on behavioral intentions to use mobile marketing applications?
4. Is there any difference between Afghan and Turkish consumers regarding their attitudes toward and intentions to use mobile marketing applications?

## **5.2. RESEARCH OBJECTIVES**

The main purpose of this research is to investigate the factors that affect the intentions and attitudes of Afghan and Turkish consumers to use Mobile marketing applications based on TAM. In addition, in this study the influence of Perceived risk, Technology Readiness Index factors such as optimism, innovativeness, discomfort, insecurity, Cultural Dimensions such as power distance, uncertainty avoidance, collectivism, long-term orientation, masculinity, and the influence of demographical

factors on attitude of consumers, perceived usefulness and perceived ease of use examined. In addition to mentioned purposes, the last purpose of this research is to compare the data of two countries, Afghanistan and Turkey.

### **5.3. STATEMENT OF THE PROBLEM AND SIGNIFICANCE OF THE STUDY**

Changes and developments in the field of technology and access to the mobile phone has added to the importance of mobile marketing. Thereby the telephone device plus the advantage of communication also provided marketing activities field for consumers. So they can easily prepare their needs at any time and any place.

The following study in addition to its secondary importance has two important aspects, Firstly, the topic of being up-to-date and making it possible to compare customer needs and secondly filling the scientific and research gap.

Nowadays, consumers' use of mobile marketing applications and companies' huge investments have made mobile marketing one of the top issues. Thus, companies have been creating online marketing channels and bringing them closer and closer to customers through their mobile devices. Since customer satisfaction and loyalty are essential principles of marketing, consolidating their behavior and attitudes are essential to mobile marketing for customer satisfaction and loyalty. Therefore, it is important to examine the factors affecting the attitude and intention of mobile marketing consumers.

This is specifically true about today's world where there is an immense amount of inequality and disjunction between societies, nations, regions, cultures and economies. In this research we will explore the applications of mobile marketing technology in two specific contexts. One is Turkey and another is Afghanistan. Turkey is one of the fast growing economies and culturally a much developed nation than Afghanistan moreover, cultural politic is more important for both countries. Literacy levels in Turkey are much higher than Afghanistan (CIA World Factbook 2020). Both Afghanistan and Turkey are Muslim-majority nations, though, Turkey is a highly liberal country while as Afghanistan is still grappling with cultural, ethnic, and

ideological wars. Therefore, the approach to technology in both countries varies significantly.

After investigating past researches about mobile marketing around the world particularly in Turkey and Afghanistan I faced that most studies obtained complex and even contradictory results, making interpretation difficult. Despite the progress made by existing research, most studies focused only on a single country. Therefore, this study focused to two different countries Afghanistan and Turkey. As a result doing this study can have great importance in filling the mentioned gap.

#### **5.4. DELIMITATIONS OF THE STUDY**

Research is a time-consuming, overwhelming, tedious and sometimes costly process that requires patience and hard work. Despite the efforts of researchers, each research has different limitations, such as the geographical coverage, age range, time and location of data collection, samples, variables, factors, lack of sufficient scientific information and participants' lack of awareness or access to the noted system.

This research is delimited to Afghanistan and Turkey as the study context.

The next delimitation, data collection in Afghanistan was largely carried out in Mazar-e-Sharif, Kabul and Herat, which could not accurately represent all Afghanistan cities. And data collection in Turkey was also conducted extensively in Kocaeli and Istanbul cities on university students.

The research model is delimited to Technology Acceptance Model, Technology Readiness Index, Perceived Risk and Cultural Values constructs. Further, this study is a cross-sectional study that breaks down information of factors gathered at one given point on schedule across an example populace or a predefined subset and doesn't include leading investigations.

#### **5.5. POPULATION AND SAMPLE SIZE**

Study population is consisted of consumers living in Turkey and Afghanistan, it means that the two countries carried out a questionnaire, Afghanistan and Turkey. Primary target group for the study is the young consumers, thereby about ninety



percent of participants of this study is aged between (18-35). The questionnaire was prepared both on internet for online survey and the hard document for paper-based survey. The study was conducted from January 2020 in both countries, Afghanistan and Turkey, on web and hard documents.

Convenience Sampling, which is a non-random method, was used to reach respondents. And the sample sizes are obtained for 95% confidence interval.

## 5.6. QUESTIONNAIRE DEVELOPMENT AND SCALES

The questionnaire includes three main parts which represents the variables of this study. First part contains questions for demographic variables. Second part of the questionnaire start with brief description of mobile marketing which contains questions about the extent and manner of how to use mobile marketing applications, the third part contains five-point Likert scales, with anchors ranging from ‘strongly disagree’ to ‘strongly agree’, about Technology Readiness Index, Perceived Risk, Technology Acceptance Model, and Culture Value Scales.

The scales used in the research are those whose validity and reliability have been previously provided in the international literature. The following table illustrates the scales and resources of variables used in the questionnaire.

**Table 5.1. Research Scales**

<b>Factor</b>	<b>Scale</b>	<b>Source</b>
<b>Technology Readiness Index (TRI)</b>	OPT1: Mobile marketing apps contribute to a better quality of life.	Parasuraman (2000),
	OPT2: Mobile marketing apps gives me more freedom of mobility.	
	OPT3: Mobile marketing apps gives people more control over their daily lives.	Parasuraman & Colby (2015)
	OPT4: Mobile marketing apps makes me more productive in my personal life.	
	INN1: Other people come to me for advice on mobile marketing apps.	

---

INN2: In general, I am among the first in my circle of friends to acquire mobile new marketing apps when it appears.

INN3: I can usually figure out new high-tech products and services without help from others.

INN4: I keep up with the latest technological developments in my areas of interest.

DIS1: When I get technical support from a provider of a high-tech product or service, I sometimes feel as if I am being taken advantage of by someone who knows more than I do.

DIS2: Technical support lines are not helpful because they don't explain things in terms I understand.

DIS3: Sometimes, I think that mobile marketing apps are not designed for use by ordinary people.

DIS4: There is no such thing as a manual for a high-tech product or service that's written in plain language.

INS1: People are too dependent on technology to do things for them.

INS2: Too much technology distracts people to a point that is harmful.

INS3: Technology lowers the quality of relationships by reducing personal interaction.

INS4: I do not feel confident doing business with a place that can only be reached online.

---

**Perceived  
Risk**

I think using mobile marketing services in transactions has potential risk.

Wu & Wang  
(2005)

I think using mobile marketing services in product purchases has potential risk.

Chao  
(2019)(4),

I think using mobile marketing services in merchandise services has potential risk.

I think using mobile marketing services puts my privacy at risk.

---

---

<b>Technology acceptance model (TAM)</b>	PU1: Using mobile marketing apps improves my performance in my job.	Davis & Davis (1989),
	PU2: Using mobile marketing apps in my job increases my productivity.	
	PU3: Using mobile marketing apps enhances my effectiveness in my job.	Davis et al. (1989)
	PU4: I find mobile marketing apps to be useful in my job.      PEOU1: My interaction with the system is clear and understandable.	
	PEOU2: Interacting with mobile marketing apps does not require a lot of my mental effort.	
	PEOU3: I find mobile marketing apps to be easy to use.	
	PEOU4: I find it easy to get mobile marketing apps to do what I want it to do.	
	A1: Using mobile marketing apps is a good idea.	
	AF1: Mobile marketing apps makes work more interesting.	
	AF2: Working with mobile marketing apps is fun.	
Affect1: I like working with Mobile marketing apps.		
BI1: Assuming I have access to mobile marketing apps, I intend to use mobile marketing apps in the future.		
BI2: Given that I have access to mobile marketing apps, I predict I would use mobile marketing apps in the future.		
BI3: I plan to use mobile marketing apps in the future.		
<b>Dimensions of Cultural Values (CVSCALE)</b>	Power Distance1: People in higher positions should make most decisions without consulting people in lower positions.	Yoo et al. (2011),

---

---

Power Distance2: People in higher positions should not ask the opinions of people in lower positions too frequently. Aurigemma & Mattson (2019),

Power Distance3: People in higher positions should avoid social interaction with people in lower positions. Sun (2019)

Power Distance4: People in lower positions should not disagree with decisions by people in higher positions.

Power Distance5: People in higher positions should not delegate important tasks to people in lower positions.

Uncertainty Avoidance1: It is important to have instructions spelled out in detail so that I always know what I'm expected to do.

Uncertainty Avoidance2: It is important to closely follow instructions and procedures.

Uncertainty Avoidance3: Rules and regulations are important because they inform me of what is expected of me.

Uncertainty Avoidance4: Standardized work procedures are helpful.

Uncertainty Avoidance5: Instructions for operations are important.

Collectivism1: Individuals should sacrifice self-interest for the group.

Collectivism2: Individuals should stick with the group even through difficulties.

Collectivism3: Group welfare is more important than individual rewards.

Collectivism4: Group success is more important than individual success.

Collectivism5: Individuals should only pursue their goals after considering the welfare of the group.

---

---

Collectivism6: Group loyalty should be encouraged even if individual goals suffer.

Long-Term Orientation1: Careful management of money is important.

Long-Term Orientation2: Persistence is important to me.

Long-Term Orientation3: Personal steadiness and stability is important.

Long-Term Orientation4: I plan for the long term.

Long-Term Orientation5: Giving up today's fun for success in the future.

Long-Term Orientation6: I work hard for success in the future.

Masculinity1: It is more important for men to have a professional career than it is for women.

Masculinity2: Men usually solve problems with logical analysis; women usually solve problems with intuition.

Masculinity3: Solving difficult problems usually requires an active, forcible approach, which is typical of men.

Masculinity4: There are some jobs that a man can always do better than a woman.

---

## **5.8. METHODOLOGY OF THE RESEARCH**

### **5.8.1. Research Scale Items**

For testing the research model and hypothesis, a questionnaire which is a quantitative data collection method was constructed in English comprising demographic questions, questions about how to use mobile marketing applications and items of five-point Likert scales, with anchors ranging from 'strongly disagree' to 'strongly agree', about Technology Readiness Index, Perceived Risk, Technology Acceptance Model, and Culture Value Scales which were referenced in Table 5.1.

The scales used in the research are those whose validity and reliability have been previously provided in the international literature.

Considering that the two countries (Afghanistan and Turkey) will carry out the questionnaire, the questionnaire was translated into Dari and Turkish languages. And then Back translation procedure was adopted and revised to ensure equivalence of Dari and Turkish versions.

### **5.8.2. Data Collection Process**

Data was collected randomly from urban areas and university students of Mazar-e-Sharif, Kabul and Herat in Afghanistan, and from Turkey was also conducted extensively in Kocaeli and Istanbul cities on university students. The questionnaire was prepared both on internet for online survey and the hard document for paper-based survey. After excluding incomplete answers, extreme answers such as all 1 or all 5 the valid Afghan sample comprises 348 responders from Afghanistan and the valid Turkish sample comprises 289 responders from Turkey.

### **5.8.3. Procedure And Analytic Plan**

We used IBM SPSS Statistics version 25 for descriptive data analyses and scale reliability tests. We used Structural equation modeling (SEM) for research model testing, utilizing software AMOS 24.

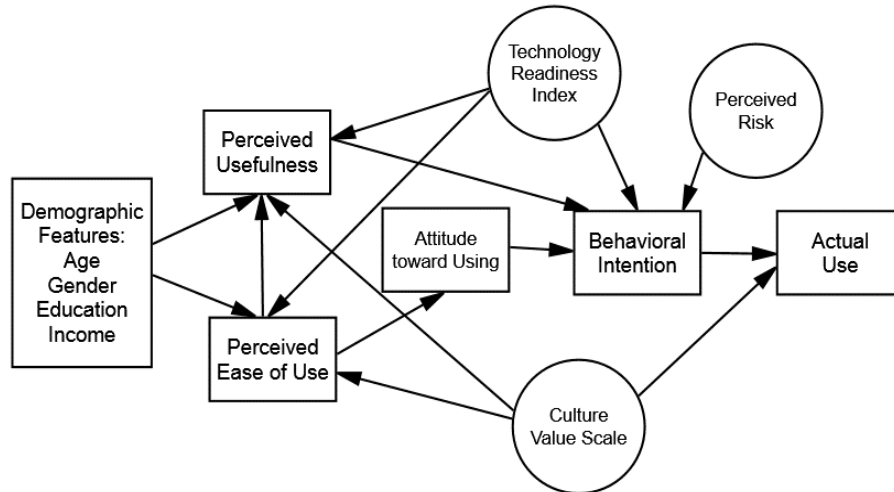
SEM enables a researcher not only to test a set of regression equations simultaneously but it also permits examination of more complex relationships and models, such as confirmatory factor analysis, time series analyses, path analysis, causal modeling with latent variables, and even analysis of variance (Structural Equation Modeling Using AMOS, 2012).

### **5.8.4. Proposed Research Model**

The framework of the model used in the research (constructs of factors affecting the intention and attitudes of mobile marketing consumers) are determined in accordance with studies in the literature.

In the proposed model, TAM is considered as the basis of research and other factors such as TRI, CVSCALE and Perceived Risk are considered as influential factors.

**Figure: 5.1.** Research Model



### 5.8.5. Research Hypotheses

The hypotheses examined in this study are as follows:

---

H1: There is a significant relationship between perceived ease of use and perceived usefulness toward using mobile marketing apps.

---

H2: There is a significant relationship between the perceived ease of use and the attitude of consumers to use mobile marketing apps.

---

H3: There is a significant relationship between perceived usefulness and consumers' attitudes toward using mobile marketing apps.

---

H4: There is a significant relationship between perceived usefulness and consumer behavioral intention to use mobile marketing apps.

---

H5: There is a significant relationship between consumer attitude and behavioral intention to use mobile marketing apps.

---

H6: There is a significant relationship between consumer behavioral intention to use mobile marketing and actual use toward mobile marketing apps.

---

---

H7: Perceived risk has a negative direct effect on behavioral intention to use mobile marketing apps.

---

H8: Technology Readiness Index factors, significantly influences the behavioral intention of continued use of mobile marketing apps.

---

H8a: The optimism factor, significantly influences the behavioral intention of continued use of mobile marketing apps.

---

H8b: The innovativeness factor, significantly influences the behavioral intention of continued use of mobile marketing apps.

---

H8c: The discomfort factor, significantly influences the behavioral intention of continued use of mobile marketing apps.

---

H8d: The insecurity factor, significantly influences the behavioral intention of continued use of mobile marketing apps.

---

H9: High personal Technology Readiness Index about mobile marketing apps in general leads to higher perceived ease of use.

---

H9a: High personal optimism about mobile marketing apps in general leads to higher perceived ease of use.

---

H9b: High personal innovativeness about mobile marketing apps in general leads to higher perceived ease of use.

---

H9c: High personal discomfort with regard to mobile marketing apps in general leads to lower perceived ease of use.

---

H9d: High personal insecurity with regard to mobile marketing apps in general leads to lower perceived ease of use.

---

H10: High personal Technology Readiness Index about mobile marketing apps in general leads to higher perceived usefulness.

---

H10a: High personal optimism about mobile marketing apps in general leads to higher perceived usefulness.

---

H10b: High personal innovativeness about mobile marketing apps in general leads to higher perceived usefulness.

---

H10c: High personal discomfort with regard to mobile marketing apps in general leads to lower perceived usefulness.

---



---

H10d: High personal insecurity with regard to mobile marketing apps in general leads to lower perceived usefulness.

---

H11: National culture significantly influences the use of mobile marketing apps.

---

H11a: Power distance significantly influences the use of mobile marketing apps.

---

H11b: Uncertainty avoidance significantly influences the use of mobile marketing apps.

---

H11c: Collectivism significantly influences the use of mobile marketing apps.

---

H11d: Long term orientation significantly influences the use of mobile marketing apps.

---

H11e: Masculinity significantly influences the use of mobile marketing apps.

---

H12: National culture significantly influences the perceived usefulness of mobile marketing apps.

---

H12a: Power distance significantly influences the perceived usefulness of mobile marketing apps.

---

H12b: Uncertainty avoidance significantly influences the perceived usefulness of mobile marketing apps.

---

H12c: Collectivism significantly influences the perceived usefulness of mobile marketing apps.

---

H12d: Long term orientation significantly influences the perceived usefulness of mobile marketing apps.

---

H12e: Masculinity significantly influences the perceived usefulness of mobile marketing apps.

---

H13: National culture significantly influences the perceived ease of use of mobile marketing apps.

---

H13a: Power distance significantly influences the perceived ease of use of mobile marketing apps.

---

H13b: Uncertainty avoidance significantly influences the perceived ease of use of mobile marketing apps.

---

H13c: Collectivism significantly influences the perceived ease of use of mobile marketing apps.

---

---

H13d: Long term orientation significantly influences the perceived ease of use of mobile marketing apps.

---

H13e: Masculinity significantly influences the perceived ease of use of mobile marketing apps.

---

H14: There are significant differences between Afghan and Turkish consumers toward mobile marketing applications.

---



## CHAPTER 6

### 6. DATA ANALYSES AND FINDINGS

In this chapter the findings of the research along with the validity and reliability of the data which is collected through the questionnaire, estimated and analyzed.

#### 6.1. RESPONDENT DEMOGRAPHICS

Table 6.1 show the major demographic features of the two countries in our study. As can be seen from Table 6.1, similar pattern is applied to both countries in most features. In the Turkish sample, there are more male respondents (N=179(61.9%)), than female respondents (N=110(38.1%)), the same pattern applies to Afghanistan sample, the male respondents (N=226(77.1%)) are more than female respondents (N=79(22.9%)). In distribution by age in both countries most respondents' ages were between "18-35" (Turkey (N=219) and Afghanistan (N=282)). From viewpoint of educational background of the respondents, the majority of participants were undergraduate in both samples and lastly, looking at the income distribution, it indicates that the majority of the participants did not have any net income in both samples.

**Table 6.1.** Demographic Features

Variable	Turkish Sample				
<b>Gender</b>	Male	Female			
	179(61.9%)	110(38.1%)			
<b>Age</b>	18-25	25-32	32-40	40 and older	
	219(75.8%)	52(18.0%)	11(3.8%)	7(2.4%)	
<b>Education</b>	Elementary Education	High School	Undergraduate	Graduate or Upper	
	13(4.5%)	15(5.2%)	210(72.7%)	51(17.6%)	
<b>Profession</b>	Student	Worker / Employee	Unemployed		
	216(74.7%)	45(15.6%)	28(9.7%)		
	No Net Income	Less than 150\$	151-300\$	301-450\$	More than 450\$

<b>Monthly net Income</b>	121(41.9%)	81(28.0%)	54(18.7%)	17(5.9%)	16(5.5%)
Afghanistan Sample					
<b>Gender</b>	Male	Female			
	226(77.1%)	79(22.9%)			
<b>Age</b>	18-25	25-32	32-40	40 and older	
	282(81.7%)	46(13.3%)	14(4.1%)	3(0.9%)	
<b>Education</b>	Elementary Education	High School	Undergraduate	Graduate or Upper	
	13(3.8%)	79(22.9%)	224(64.9%)	29(8.4%)	
<b>Profession</b>	Student	Worker / Employee	Unemployed		
	235(68.1%)	82(23.8%)	28(8.1%)		
<b>Monthly net Income</b>	No Net Income	Less than 150\$	151-300\$	301-450\$	More than 450\$
	216(62.6%)	53(15.4%)	33(9.6%)	26(7.5%)	17(4.9%)

## 6.2.VALIDITY AND RELIABILITY OF THE SCALES

There are two scientific requisites in scientific researches, one is reliability and the other is validity. Reliability is characterized as consistency in outcomes from rehashed estimations. Validity is characterized as the precision of the outcome; precision is characterized as minimal distinction between the expected and observed value. In sociology, these two prerequisites as the unit of analysis, focuses to the instrument for data collection. In sociology, data are commonly collected through the surveys or questionnaires. In order for the examination discoveries to accomplish experimental and logical standing, the instrument should be appropriately aligned. Instrument alignment implies that it must pass validity and reliability tests (Louangrath, 2018).

### 6.2.1. Confirmatory Factor Analysis (CFA)

CFA is a statistical technique that analyzes the unique different between unobserved constructs for referring to as a factor and how indicators measure unobserved constructs. The term factor represent the unobservable construct that will measure. In a CFA analyze we draw two kind of arrows (1) single headed arrows from unobserved constructs to the indicators for representing the reflected influence from unobserved variable to its indicators and the estimates of these direct effects (regression coefficients) are called factor loadings. (2) Two headed arrows is drawn between all independent unobservable variables and the estimates of these relations are called Covariance estimates (Collier, 2020).

Before performing CFA, the suitability of the sample data for factor analysis was determined by using KMO coefficient and Bartlett test. Thus, the result of KMO coefficient greater than (0.5) showed that the sample size is suitable for analysis. The results of KMO coefficient and Bartlett test are shown in Table 6.2.

**Table 6.2. KMO and Bartlett's Test Results**

<b>KMO and Bartlett's Test</b>					
<b>Model</b>		<b>Turkish Sample</b>	<b>Afghanistan Sample</b>	<b>Integrated Sample</b>	
<b>Technology Readiness Index</b>	KMO Measure of Sampling Adequacy	0.750	0.755	0.769	
	Bartlett's Test of Sphericity	Approx. Chi-Square	1715.569	1664.304	3054.044
		DF.	120	120	120
		Sig	0.000	0.000	0.000
<b>Perceived Risk</b>	KMO Measure of Sampling Adequacy	0.796	0.770	0.782	
	Bartlett's Test of Sphericity	Approx. Chi-Square	428.387	488.493	915.990
		DF.	6	6	6
		Sig	0.000	0.000	0.000
	KMO Measure of Sampling Adequacy	0.924	0.887	0.915	

<b>Technology Acceptance Model</b>	Bartlett's Test of Sphericity	Approx. Chi-Square	2967.613	2670.227	5489.968
		DF.	105	105	105
		Sig	0.000	0.000	0.000
<b>Culture Value Scale</b>	KMO Measure of Sampling Adequacy		0.844	0.893	0.901
	Bartlett's Test of Sphericity	Approx. Chi-Square	3655.864	4057.238	7689.409
		DF.	325	325	325
		Sig	0.000	0.000	0.000

\*Note1: Since the KMO coefficient is greater than 0.7 for all of data samples, it can be said that the data samples have good adequacy in terms of factor analysis.

\*\*Note2: It is seen that Bartlett's Test of Sphericity is significant at the level of 0.001 for all data sets. The data set is suitable for factor analysis.

We used Structural equation modeling (SEM) for performing CFA, utilizing software AMOS, which the results are shown in Table 6.3.

**Table 6.3.** Factor Loadings

Factor Loading For All Variables				
Model	Items	Turkish Sample	Afghanistan sample	Integrated sample
Technology Readiness Index	Optimism1	0.795	0.669	0.766
	Optimism2	0.834	0.660	0.773
	optimism3	0.809	0.844	0.797
	Optimism4	0.647	0.739	0.696
	Innovativeness1		0.888	0.827
	Innovativeness2		0.674	0.736
	Innovativeness3	0.889	0.550	0.516
	Innovativeness4	0.783		
	Discomfort1	0.653		
	Discomfort2	0.653	0.643	0.616

	Discomfort3	0.676	0.633	0.642
	Discomfort4		0.829	0.718
	Insecurity1	0.727		
	Insecurity2	0.827	0.700	0.681
	Insecurity3	0.676	0.695	0.781
	Insecurity4		0.705	0.528
	P.Usefulness1	0.767	0.644	0.665
	P.Usefulness2	0.876	0.641	0.699
	P.Usefulness3	0.895	0.632	0.684
	P.Usefulness4		0.890	0.878
	P. Ease Of Use1	0.852	0.909	0.833
	P. Ease Of Use2	0.724	0.412	0.605
Technology Acceptance Model	P. Ease Of Use3	0.793	0.599	0.840
	P. Ease Of Use4	0.783	0.857	0.676
	Attitude1	0.643	0.671	0.663
	Attitude2	0.590	0.717	0.658
	Attitude3	0.696	0.560	0.633
	Attitude4	0.869	0.792	0.838
	B.Intention1	0.897	0.907	0.888
	B.Intention2	0.804	0.793	0.794
	B.Intention3	0.782	0.841	0.759
	Power Distance1	0.629		0.661
	Power Distance2	0.597		0.704
	Power Distance3	0.864	0.726	0.796
	Power Distance4	0.724	0.754	0.662
Culture Value Scale	Power Distance5		0.646	
	Uncertainty A.1	0.692		0.668
	Uncertainty A.2	0.819	0.803	0.860

Uncertainty A.3	0.836	0.743	0.802
Uncertainty A.4	0.509	0.853	0.706
Uncertainty A.5		0.871	0.796
Collectivism1	0.609		0.625
Collectivism2	0.729	0.739	0.709
Collectivism3	0.817	0.725	0.817
Collectivism4	0.769	0.787	0.759
Collectivism5	0.747	0.690	0.735
Collectivism6			
L.T.Orientation1	0.824	0.730	0.768
L.T.Orientation2	0.872	0.793	0.829
L.T.Orientation3	0.815	0.694	0.751
L.T.Orientation4	0.570	0.678	0.607
L.T.Orientation5			
L.T.Orientation6			
Masculinity1	0.795	0.675	0.758
Masculinity2	0.647	0.606	0.720
Masculinity3	0.717	0.751	0.783
Masculinity4	0.660		0.620

### 6.2.2. Model Fit

We test all of indexes for model fitting particularly P value, CMIN/DF, RMSEA, and CFI. If the CMIN/DF (chi-square) is littler than 5, and RMSEA (Root Mean Square Error of Approximation) is littler than or equivalent to 0.08, there is sufficient model fit. If the chi-square is littler than 3 and RMSEA is litter than 0.05, we can say there is great model fit. It should be noted that, there are some other indexes for instance GFI, NFI, RMR and AGFI, that should be considered for model fitting. Table 6.4 displays the model fit summary of our research model.



**Table 6.4. Model Fit Summary**

<b>Model Fit Summary</b>				
<b>Models</b>	<b>Indexes</b>	<b>Turkish Sample</b>	<b>Afghanistan sample</b>	<b>Integrated sample</b>
<b>Technology Readiness Index</b>	CMIN/DF	2.517	2.242	3.689
	P. Value	***	***	***
	RMSEA	0.073	0.060	0.065
	CFI	0.941	0.946	0.934
<b>Technology Acceptance Model</b>	CMIN/DF	2.853	2.969	4.541
	P. Value	***	***	***
	RMSEA	0.800	0.076	0.075
	CFI	0.953	0.943	0.949
<b>Culture Value Scale</b>	CMIN/DF	2.076	1.701	2.690
	P. Value	***	***	***
	RMSEA	0.061	0.045	0.052
	CFI	0.931	0.968	0.947

**6.2.3. Estimation of Reliability and Validity**

We estimated the reliability of our models by Cronbach's Alpha, using scale reliability analysis in SPSS and composite analysis, using SEM analysis in Amos. In our study most of scales possessed Cronbach's Alphas greater than 0.5 and composite reliability greater than 0.7.

The validity of our model also estimated in Amos and MS Excel and most of constructs had an AVE greater than 0.5. Table 6.5 displays the quality of reliability and validity of our study.

**Table 6.5. Quality of Validity & Reliability**

<b>Model</b>	<b>Factor</b>	<b>Composite reliability</b>	<b>AVE</b>	<b>MSV</b>	<b>ASV</b>	<b>Cronbach's alpha</b>
Turkey=289						
TRI	Insecurity	0.789	0.556	0.021	0.009	0.784

	Optimism	0.856	0.600	0.264	0.094	0.853
	Innovativeness	0.824	0.702	0.264	0.096	0.820
	Discomfort	0.700	0.438	0.018	0.009	0.700
TAM	Behavioral Intention	0.868	0.688	0.830	0.554	0.888
	Perceived Usefulness	0.884	0.719	0.533	0.403	0.896
	Perceived Ease of Use	0.868	0.623	0.573	0.541	0.858
	Attitude	0.797	0.500	0.830	0.588	0.825
P. Risk						0.824
CVSCALE	Masculinity	0.799	0.500	0.176	0.082	0.815
	Power Distance	0.800	0.506	0.126	0.054	0.814
	Uncertainty Avoidance	0.812	0.527	0.368	0.139	0.803
	Collectivism	0.855	0.544	0.176	0.117	0.850
	Long Term Orientation	0.858	0.607	0.368	0.139	0.845
Afghanistan=345						
TRI	Insecurity	0.742	0.490	0.210	0.073	0.742
	Optimism	0.820	0.535	0.086	0.039	0.827
	Innovativeness	0.754	0.515	0.086	0.031	0.740
	Discomfort	0.747	0.500	0.210	0.080	0.736
TAM	Behavioral Intention	0.885	0.720	0.682	0.353	0.856
	Perceived Usefulness	0.795	0.500	0.711	0.410	0.846
	Perceived Ease of Use	0.933	0.814	0.228	0.163	0.771
	Attitude	0.782	0.476	0.711	0.523	0.808
P. Risk						0.805
CVSCALE	Masculinity	0.719	0.462	0.206	0.144	0.719
	Power Distance	0.752	0.504	0.206	0.062	0.748
	Uncertainty Avoidance	0.890	0.671	0.632	0.250	0.892
	Collectivism	0.825	0.542	0.319	0.206	0.792

	Long Term Orientation	0.815	0.526	0.632	0.275	0.805
Integrated=634						
TRI	Insecurity	0.706	0.451	0.138	0.049	0.689
	Optimism	0.844	0.576	0.162	0.067	0.842
	Innovativeness	0.741	0.497	0.162	0.058	0.698
	Discomfort	0.698	0.436	0.138	0.061	0.671
TAM	Behavioral Intention	0.856	0.665	0.810	0.502	0.874
	Perceived Usefulness	0.824	0.542	0.605	0.500	0.875
	Perceived Ease of Use	0.831	0.556	0.487	0.394	0.812
	Attitude	0.794	0.494	0.810	0.607	0.822
P. Risk						0.813
CVSCALE	Masculinity	0.813	0.523	0.259	0.147	0.810
	Power Distance	0.800	0.501	0.226	0.071	0.810
	Uncertainty Avoidance	0.878	0.592	0.501	0.219	0.869
	Collectivism	0.851	0.535	0.293	0.201	0.851
	Long Term Orientation	0.830	0.552	0.501	0.182	0.834

### 6.3. DESCRIPTIVE STATISTICS

In the next step to display summarizes of the raw data of our research, we performed descriptive statistics analyze for calculating major descriptive statistics such as: arithmetic means and standard deviation. As mentioned before, the items in the questionnaire were prepared according to the Five-point Likert scales, with anchors ranging from “strongly disagree” to “strongly agree”. Calculated means above 3 indicate agreement of participants with expressions and calculated means less than 3 indicate the disagreement of the participants with expressions.

In this research for factors under Technology Readiness Index, the mean of the responses of the Turkish and Afghan participants to the factors of optimism, innovativeness, and insecurity were higher than 3, except for discomfort that was

below 3, just for Turkish participants. Also the mean of the responses of the Afghan participants for optimism factor (3.69) and the mean of the responses of the Turkish participants for insecurity factor (3.61) was calculated to be the highest. The mean and standard deviation values calculated for the expressions of the technology readiness index are given in Table 6.6.

**Table 6.6.** Descriptive Statistics of Technology Readiness Index

Factor	Turkish Sample (N=289)		Afghanistan Sample (N=345)	
	Mean	Std. Deviation	Mean	Std. Deviation
<b>Optimism</b>	3.4317	0.95486	3.6928	0.79044
Optimism1	3.5744	1.11594	3.8812	0.91836
Optimism2	3.4879	1.18176	3.5536	0.96938
Optimism3	3.4879	1.10900	3.6638	0.99563
Optimism4	3.1765	1.17851	3.6725	1.01154
<b>Innovativeness</b>	3.1073	0.95888	3.2993	0.77579
Innovativeness1	2.7578	1.28161	2.9942	1.17383
Innovativeness2	2.6471	1.28560	2.5478	1.20977
Innovativeness3	3.5398	1.26353	3.5101	1.14908
Innovativeness4	3.4844	1.16991	4.1449	0.97461
<b>Discomfort</b>	2.8296	0.7593	3.3036	0.72036
Discomfort1	2.7370	1.07693	3.7739	0.95596
Discomfort2	2.8374	1.00581	3.2348	0.94927
Discomfort3	2.7232	1.05385	3.0551	1.17873
Discomfort4	3.0208	1.11161	3.1507	1.07855
<b>Insecurity</b>	3.6125	0.80465	3.4406	0.81863
Insecurity1	3.5882	1.13346	3.7739	1.14420
Insecurity2	3.9239	1.09024	3.3536	1.12691
Insecurity3	3.7889	1.11200	3.4986	1.18647
Insecurity4	3.1488	1.02164	3.1362	1.14196

We performed independent samples T-test to proving whether differences between the two countries are significant or non-significant. Table 6.7 displays the result of the test.

**Table 6.7.** Independent samples t-test regarding Afghan-Turkish data samples for TRI forming constructs

		Turkish Sample		T-test for Equality of Means		
		Levene's Test for Equality of Variances		T	df	Sig. (2-tailed)
Afghanistan Sample		F	Sig.			
<b>Optimism</b>	Equal variances assumed	7.34461	0.00690	3.76679	632	0.00018
	Equal variances not assumed			3.70506	559.2598	0.00023
<b>Innovativeness</b>	Equal variances assumed	11.95774	0.00058	2.78674	632	0.00548
	Equal variances not assumed			2.73574	551.5855	0.00642
<b>Discomfort</b>	Equal variances assumed	0.30157	0.58308	8.05115	632	0.00001
	Equal variances not assumed			8.01377	600.3017	0.00001
<b>Insecurity</b>	Equal variances assumed	0.00035	0.98495	-2.65351	632	0.00816
	Equal variances not assumed			-2.65755	616.1364	0.00807

In table 6.7, since the level of significance of Levene's Test for Equality of Variances is less than 0.05 for optimism and innovativeness, the "equal variances not assumed" considered for both countries, and because the value of significance of Levene's Test for Equality of Variances is greater than 0.05 for discomfort and insecurity, the "equal variances assumed" considered for both countries. Then, the significance (2-tailed) value of the second row for optimism and innovativeness, which is "equal variances not assumed", and the significance (2-tailed) value of the first row for discomfort and insecurity, which is "equal variances assumed" were looked at. Here, all of the values for factors under the technology readiness index are less than

0.05, so it is interpreted as there is a significant difference between Afghanistan and Turkish participants regarding all of the dimensions of Technology Readiness Index.

**Table 6.8.** Descriptive Statistics of Perceived Risk

	<b>Turkish Sample (N=289)</b>		<b>Afghanistan Sample (N=345)</b>	
	Mean	Std. Deviation	Mean	Std. Deviation
<b>Perceived Risk</b>	3.14619	0.86278	2.95942	0.86612
Risk 1	3.09342	1.05816	3.1130	1.10573
Risk 2	3.07612	1.03803	2.9362	1.08451
Risk 3	3.07958	1.07878	2.8696	1.03307
Risk 4	3.33564	1.09043	2.9188	1.13574

Table 6.8 displays calculated mean and standard deviation values for the expressions of perceived risk toward mobile marketing applications. In this research, the mean of the responses of Turkish participants for perceived risk is (3.14) near 4. Accordingly, it is seen that the participants agree with statements. On the other hand, the mean of responses of Afghan participants is (2.95) near 2. Accordingly, it is interpreted as disagreement of Afghan participants with statements. For proving whether mean differences between the two countries are significant or non-significant we performed independent samples T-test.

**Table 6.9.** Independent Samples T-test for Perceives Risk

	<b>Turkish Sample</b>	<b>Levene's Test for Equality of Variances</b>		<b>T-test for Equality of Means</b>		
		F	Sig.	T	df	Sig. (2-tailed)
<b>Risk</b>	E. V. assumed	0.116078	0.73344	-2.709	632	0.00693
	E. V. not assumed			-2.709	613.471	0.00691

\* E. V. = Equal variances

In table 6.9, since the value of significance of Levene's Test for Equality of Variances is greater than 0.05, the "equal variances assumed" considered for both countries. Then, the significance (2-tailed) value of the first-row was looked at. Here,

the value for perceived risk is less than 0.05, so it is interpreted that there is a significant difference between Afghanistan and Turkish participants regarding perceived risk.

**Table 6.10.** Descriptive Statistics of Technology Acceptance Model

Factor	Turkish Sample (N=289)		Afghanistan Sample (N=345)	
	Mean	Std. Deviation	Mean	Std. Deviation
<b>Perceived Usefulness</b>	<b>3.4265</b>	0.96690	<b>3.6870</b>	0.78816
P. Usefulness1	3.4464	1.09832	3.6464	0.95061
P. Usefulness2	3.3979	1.14449	3.7130	0.92540
P. Usefulness3	3.3841	1.11550	3.6435	1.00456
P. Usefulness4	3.4775	1.08029	3.7449	0.93004
<b>Perceived Ease of Use</b>	<b>3.5856</b>	0.86365	<b>3.5181</b>	0.82863
P. Ease of Use1	3.4740	1.08021	3.5101	1.00321
P. Ease of Use2	3.4810	1.08996	3.3565	1.19732
P. Ease of Use3	3.7301	0.96276	3.7188	1.01690
P. Ease of Use4	3.6574	0.98440	3.4870	1.07589
<b>Attitude</b>	<b>3.4585</b>	0.77784	<b>3.7986</b>	0.75048
Attitude1	3.6367	0.93328	3.9014	0.88700
Attitude2	3.3114	0.96100	3.8725	0.94375
Attitude3	3.4394	0.89983	3.6783	0.96943
Attitude4	3.4464	1.04320	3.7420	0.96756
<b>Behavioral Intention</b>	<b>3.5790</b>	0.97302	<b>3.8551</b>	0.84005
B. Intention1	3.5571	1.05624	3.8580	0.96153
B. Intention2	3.6332	1.08192	3.7768	0.97321
B. Intention3	3.5467	1.09230	3.9304	0.92499

In this research for factors under Technology Acceptance Model, the mean of the responses of the Turkish and Afghan respondents to the factors of Perceived Usefulness, Perceived Ease of Use, Attitude and Behavioral Intention were higher than

3, so it is interpreted that the respondents of both countries agree with statements. Also, the mean of the responses of the Afghan participants for Behavioral Intention (3.85) and the mean of the responses of the Turkish participants for Perceived Ease of Use (3.58) was calculated to be the highest. The mean and standard deviation values calculated for the factors and statements of the Technology Acceptance Model are given in Table 6.10. As can be seen in Table 6.10, although all the means of the two countries' samples are more than 3, but there are some differences between the means of the two countries' samples. For proving whether mean differences between the two countries' samples are significant or non-significant we performed independent samples T-test.

**Table 6.11.** Independent samples T-test for Technology Acceptance Model

		Levene's Test for Equality of Variances		T-test for Equality of Means		
		F	Sig.	T	df	Sig. (2-tailed)
<b>Perceived Usefulness</b>	E. V. assumed	14.87983	0.00012	3.73688	632	0.00020
	E. V. not assumed			3.67081	554.10	0.00026
<b>Perceived Ease of Use</b>	E. V. assumed	0.13216	0.71632	-1.00238	632	0.31654
	E. V. not assumed			-0.99872	603.15	0.31832
<b>Attitude</b>	E. V. assumed	1.43796	0.23091	5.58882	632	0.00001
	E. V. not assumed			5.57115	604.52	0.00001
<b>Behavioral Intention</b>	E. V. assumed	9.79627	0.00182	3.83355	632	0.00013
	E. V. not assumed			3.78438	572.92	0.00017

\*E. V. = Equal variances

In table 6.11, since the level of significance of Levene's Test for Equality of Variances is less than 0.05 for Perceived Usefulness and Behavioral Intention, the "equal variances not assumed" considered for both countries, and since the value of significance of Levene's Test for Equality of Variances is greater than 0.05 for Perceived Ease of Use and Attitude, the "equal variances assumed" considered for both countries. Then, the significance (2-tailed) value of the second row for Perceived Usefulness and Behavioral Intention, which is "equal variances not assumed", and the



significance (2-tailed) value of the first row for Perceived Ease of Use and Attitude, which is “equal variances assumed” were looked at. Here, the Sig. (2-tailed) values for Perceived Usefulness, Attitude, and Behavioral Intention are less than 0.05, so it is interpreted as there is a significant difference between Afghanistan and Turkish participants regarding Perceived Usefulness, Attitude, and Behavioral Intention. Whereas the Sig. (2-tailed) value for Perceived Ease of Use is 0.316, greater than 0.05, so it is interpreted that there is no significant difference between two countries' means regarding Perceived Ease of Use.

**Table 6.12.** Descriptive Statistics of Culture Value Scales

Factor	Turkish Sample (N=289)		Afghanistan Sample (N=345)	
	Mean	Std. Deviation	Mean	Std. Deviation
<b>Power Distance</b>	<b>2.4118</b>	0.94104	<b>2.8284</b>	0.90348
Power Distance1	2.4706	1.26381	2.8841	1.23109
Power Distance2	2.6125	1.22842	2.8638	1.22070
Power Distance3	2.1522	1.21807	2.4609	1.29817
Power Distance4	2.1765	1.19315	2.9333	1.22885
Power Distance5	2.6471	1.24722	3.0000	1.18371
<b>Uncertainty Avoidance</b>	<b>3.7287</b>	0.76796	<b>4.1925</b>	0.77569
U. Avoidance1	3.7232	1.09268	4.0870	1.00492
U. Avoidance2	3.7163	0.98730	4.2290	0.87090
U. Avoidance3	3.8512	0.98001	4.2551	0.89500
U. Avoidance4	3.4637	0.98225	4.1594	0.94351
U. Avoidance5	3.8893	0.96906	4.2319	0.94538
<b>Collectivism</b>	<b>3.3472</b>	0.85909	<b>3.8058</b>	0.78481
Collectivism1	3.1176	1.21621	3.5594	1.19960
Collectivism2	3.4567	1.05690	3.9362	0.97438
Collectivism3	3.2872	1.16542	4.0348	0.99939
Collectivism4	3.4637	1.09587	4.0058	1.03428
Collectivism5	3.2837	1.09089	3.7739	1.10544

Collectivism6	3.4740	1.04426	3.5246	1.14633
<b>Long Term Orientation</b>	<b>3.8166</b>	0.79520	<b>4.1604</b>	0.72573
L. T. Orientation1	4.1280	1.03458	4.3043	0.97504
L. T. Orientation2	4.0727	0.99909	4.0174	1.02568
L. T. Orientation3	4.1453	1.01362	4.1217	0.98371
L. T. Orientation4	3.7232	1.13934	4.1275	0.94989
L. T. Orientation5	3.3529	1.18439	4.0638	0.93789
L. T. Orientation6	3.4775	1.12747	4.3275	0.92759
<b>Masculinity</b>	<b>2.6696</b>	1.07439	<b>3.5058</b>	0.90157
Masculinity1	2.3426	1.38580	3.6261	1.23275
Masculinity2	2.7682	1.26308	3.5739	1.15935
Masculinity3	2.5571	1.31670	3.2609	1.16205
Masculinity4	3.0104	1.38816	3.5623	1.24698

Table 6.12, displays the mean and standard deviation for factors and statements which is covered by the culture value scale, in this research for factors and statements under the CVSCALE Model, the mean of the responses of the Turkish respondents to the factors of Uncertainty Avoidance, Collectivism, and Long Term Orientation were higher than 3, so it is interpreted that the Turkish respondents agree with statements under these factors and the mean of responses of Turkish respondents for Power Distance and Masculinity were less than 3, so it is interpreted as the disagreement of Turkish respondents with mentioned factors. On the other side, the mean of responses for Afghan participants to the factors of Uncertainty Avoidance, Collectivism, Long Term Orientation, and Masculinity was higher than 3, and just for Power Distance, it was less than 3, so as a result it is interpreted that Afghan participants just disagree with statements under Power Distance. Also, the mean of the responses of the Afghan participants for Uncertainty Avoidance (4.19) and the mean of the responses of the Turkish participants for Long Term Orientation (3.18) was calculated to be the highest. As can be seen in Table 6.12, although all the means of the two countries' samples are mostly more than 3, but there are some differences between the means of the two

countries' samples. For proving whether mean differences between the two countries' samples are significant or non-significant we performed independent samples T-test.

**Table 6.13.** Independent Samples T-Test for CVSCALE

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig. (2-tailed)
<b>Power Distance</b>	E. V. assumed	2.11628	0.14623	5.67435	632	0.000
	E. V. not assumed			5.65395	603.318	0.000
<b>Uncertainty Avoidance</b>	E. V. assumed	0.00749	0.93103	7.53141	632	0.000
	E. V. not assumed			7.53809	614.721	0.000
<b>Collectivism</b>	E. V. assumed	3.41693	0.06499	7.01816	632	0.000
	E. V. not assumed			6.96238	590.011	0.000
<b>Long Term Orientation</b>	E. V. assumed	2.17895	0.14040	5.68617	632	0.000
	E. V. not assumed			5.64050	589.734	0.000
<b>Masculinity</b>	E. V. assumed	16.6229	0.00005	10.6564	632	0.000
	E. V. not assumed			10.4940	563.750	0.000

\* E. V. = Equal variances

In table 6.13, since the value of significance of Levene's Test for Equality of Variances is greater than 0.05 for Power Distance, Uncertainty Avoidance, Collectivism, and Long Term Orientation, the "equal variances assumed" considered for both countries' samples, and since the value of significance of Levene's Test for Equality of Variances is less than 0.05 for Masculinity, the "equal variances not assumed" considered for both countries' samples. Then, the significance (2-tailed) value of the first row for Power Distance, Uncertainty Avoidance, Collectivism, and Long Term Orientation, which is "equal variances assumed", and the significance (2-tailed) value of the second row for Masculinity, which is "equal variances not assumed" were looked at. Here, all of the values for factors under the culture value scale are less than 0.05, so it is interpreted as there is a significant difference between Afghanistan and Turkish participants regarding the mentioned factors.

#### 6.4. FREQUENCY OF SHOPPING VIA SMARTPHONES

The results show that there are more smartphone owners in Turkey than in Afghanistan, i.e. in Turkey, almost all participants had a smartphone, and the majority of the participants (45.7%) spend more than 3 hours of her/his time using the internet via smartphones per day while in Afghanistan 91% of participants had smartphones and the majority of participants (28.1%) spend more than 3 hours of her/his time for using internet via smartphones per day. In case of using mobile applications, 75.1% of Turkish respondents use mobile applications, and the majority of respondents (66.8%) spend less than 1 hour of her/his time on mobile apps per day while the usage rate in Afghanistan reaches 33% and like Turkish respondents the majority of respondents (93.6%) also spend less than 1 hour or none of her/his time on mobile apps per day. And lastly in case of shopping via smartphones, the majority of Turkish respondents (39.1%) shop by her/his smartphones once a month while the majority of Afghan respondents (66.4%) never shop by her/his smartphones.

**Table 6.14.** Frequency of Shopping Via Smartphones

<b>Turkish Sample</b>					
<b>Having Smartphone</b>	Yes	No			
	287(99.3%)	2(0.7%)			
<b>Using Mobile Apps</b>	Yes	No			
	217(75.1%)	72(24.9%)			
<b>Using Net via Smartphone Per day</b>	Less than 1 hour	1 hour	2 hour	3 hour	More than 3 hour
	12(4.2%)	19(6.6%)	55(19.0%)	71(24.6%)	132(45.7%)
<b>Shopping via Smartphones</b>	Once a week	Once a month	Once every six month	Once a year	Never
	29(10.0%)	113(39.1%)	82(28.4%)	42(14.5%)	23(8.0%)
<b>Spending time on mobile apps per day</b>	Less than 1 hour or none	1 hour	2 hour	3 hour	More than 3 hour
	193(66.8%)	51(17.6%)	24(8.3%)	11(3.8%)	10(3.5%)
<b>Afghanistan Sample</b>					

<b>Having Smartphone</b>	Yes	No			
	314(91.0%)	31(9.0%)			
<b>Using Mobile Apps</b>	Yes	No			
	114(33.0%)	231(67.0%)			
<b>Using Net via Smartphone Per day</b>	Less than 1 hour	1 hour	2 hour	3 hour	More than 3 hour
	74(21.4%)	61(17.7%)	59(17.1%)	54(15.7%)	97(28.1%)
<b>Shopping via Smartphones</b>	Once a week	Once a month	Once every six month	Once a year	Never
	18(5.2%)	33(9.6%)	26(7.5%)	39(11.3%)	229(66.4%)
<b>Spending time on mobile apps per day</b>	Less than 1 hour or none	1 hour	2 hour	3 hour	More than 3 hour
	323(93.6%)	17(4.9%)	3(0.9%)	1(0.3%)	1(0.3%)

## 6.5. FREQUENCY OF MOBILE APPS IN SHOPPING

Table 6.15 show how often and for what reasons participants use mobile applications. Briefly, for example the majority of mobile applications subscribers of Turkish sample always use mobile apps for selling products and hotel reservation while in Afghanistan the majority of mobile applications subscribers use mobile apps for getting information about products and mobile banking.

**Table 6.15.** Frequency of Mobile Apps in Shopping

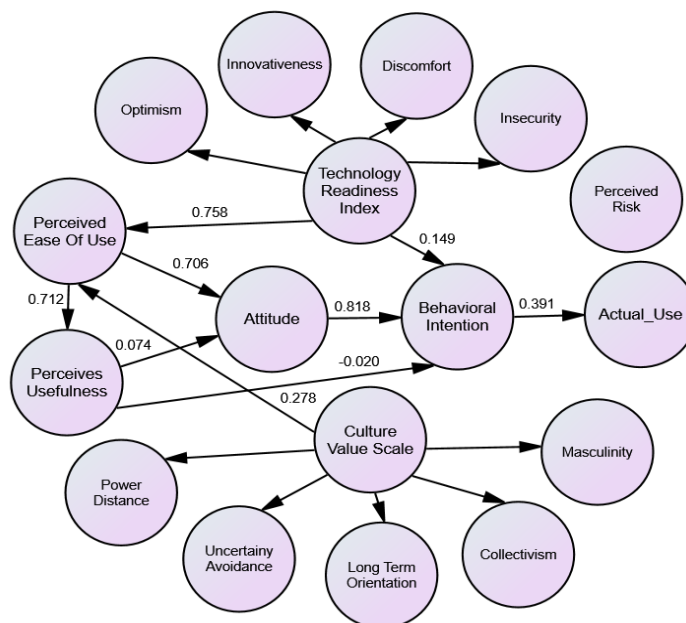
<b>Turkish Sample</b>					
	Always	Often	Sometimes	Rarely	Never
<b>Purchasing Product</b>	30(10.4%)	59(20.4%)	99(34.3%)	75(26.0%)	26(9.0%)
<b>Food Ordering</b>	63(21.8%)	89(30.8%)	84(29.1%)	37(12.8%)	16(5.5%)
<b>Hotel Reservation</b>	147(50.9%)	63(21.8%)	49(17.0%)	21(7.3%)	9(3.1%)
<b>Booking Flight Tickets</b>	111(38.4%)	56(19.4%)	62(21.5%)	35(21.1%)	25(8.7%)
<b>Mobile Banking</b>	26(9.0%)	13(4.5%)	35(12.1%)	87(30.1%)	128(44.3%)
<b>Sell Products</b>	178(61.6%)	58(20.1%)	27(9.3%)	18(6.2%)	8(2.8%)

<b>Getting Information</b>	23(8.0%)	25(8.7%)	50(17.3%)	90(31.1%)	101(34.9%)
<b>Afghanistan Sample</b>					
<b>Purchasing Product</b>	12(3.5%)	11(3.2%)	61(17.7%)	62(18.0%)	199(57.7%)
<b>Food Ordering</b>	14(4.1%)	24(7.0%)	44(12.8%)	66(19.1%)	197(57.1%)
<b>Hotel Reservation</b>	4(1.2%)	8(2.3%)	38(11.0%)	63(18.3%)	232(67.2%)
<b>Booking Flight Tickets</b>	16(4.6%)	16(4.6%)	41(11.9%)	50(14.5%)	222(64.3%)
<b>Mobile Banking</b>	38(11.0%)	23(6.7%)	69(20.0%)	36(10.4%)	179(51.9%)
<b>Sell Products</b>	11(3.2%)	6(1.7%)	25(7.2%)	46(13.3%)	257(74.5%)
<b>Getting Information</b>	65(18.8%)	46(13.3%)	59(17.1%)	43(12.5%)	132(38.3%)

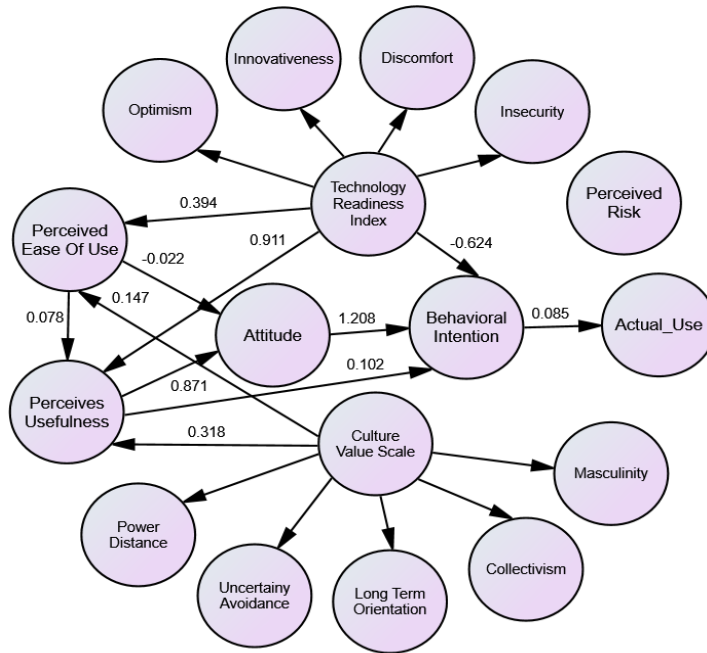
## 6.6. THE STRUCTURAL MODEL

Before developing the overall research model, we evaluated each of the samples related to Afghanistan and Turkey separately to indicate internal consistency and validity between constructs. After obtaining the desired results to know which factors affect the intention and attitudes of Afghan and Turkish consumers toward mobile marketing application we performed SEM path analysis in AMOS. Figures show the result of our analysis (we eliminate some insignificant effects).

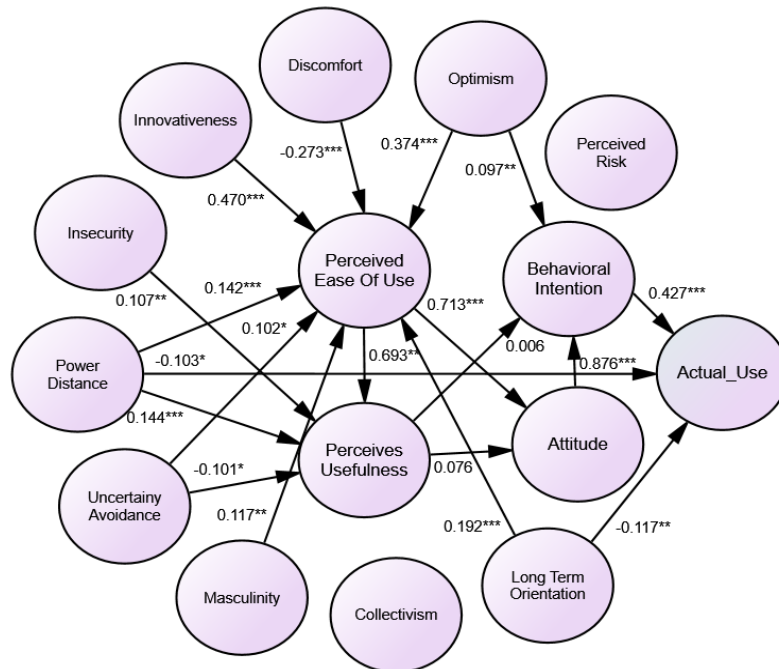
**Figure 6.1.** Turkish Sample Structural Model (1)



**Figure 6.2.** Afghanistan Sample Structural Model (1)

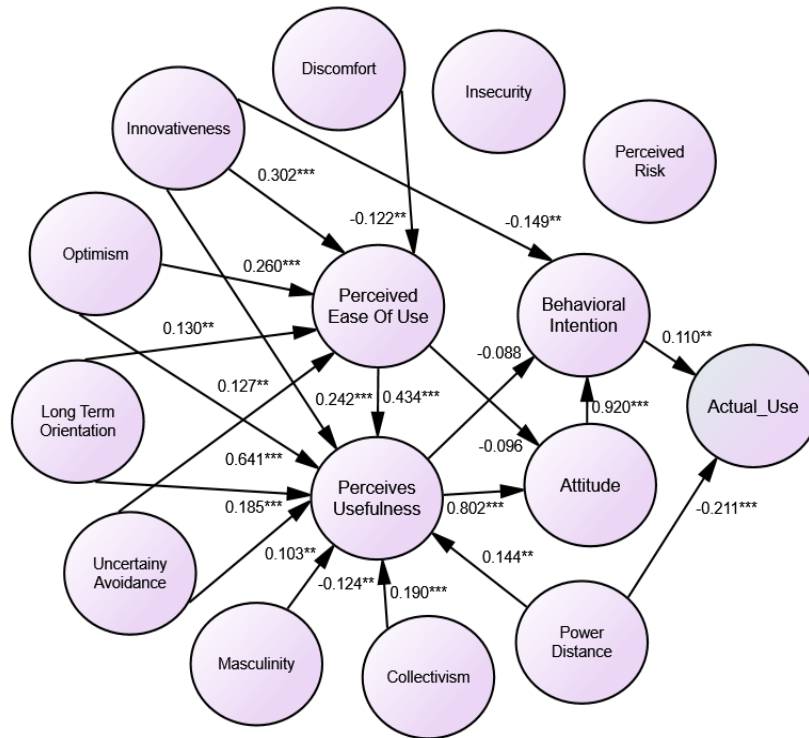


**Figure 6.3.** Turkish Sample Structural Model (2)



Notes: \*\*\* p- value < 0.01; \*\* p-value < 0.05; \* p-value < 0.10

**Figure 6.4.** Afghanistan Sample Structural Model (2)



Notes: \*\*\* p- value < 0.01; \*\* p-value < 0.05; \* p-value < 0.10

For comparison between two countries, we integrated the data collected from Afghanistan and Turkey, and after indicating internal consistency and validity between constructs, to determining whether there are differences between the two countries and if there are, whether these differences between the two countries are statistically significant, or non-significant, we performed a multi-group analysis. Table 6.16, displays the results of our analysis. We find some significant interaction.

**Table 6.16.** Turkish-Afghan Samples Differences

		Afghanistan		Turkey		
		Estimate	P	Estimate	P	z-score
<b>P. Ease Of Use</b>	← Optimism	0.164	0.003	0.335	0.000	2.128**
<b>P. Ease Of Use</b>	← Innovativeness	0.402	0.000	0.504	0.000	0.855
<b>P. Ease Of Use</b>	← Discomfort	-0.087	0.046	-0.364	0.000	-2.717***
<b>P. Usefulness</b>	← Optimism	0.365	0.000	0.133	0.031	-2.827***
<b>B. Intention</b>	← Optimism	0.127	0.016	0.091	0.081	-0.477



<b>P. Ease Of Use</b>	←	L. T. Orientation	0.165	0.012	0.222	0.000	0.642
<b>P. Ease Of Use</b>	←	Uncertainly Avoidance	0.149	0.001	0.193	0.001	0.588
<b>P. Usefulness</b>	←	L. T. Orientation	0.179	0.000	0.022	0.728	-1.869*
<b>P. Usefulness</b>	←	Power Distance	0.115	0.007	0.093	0.061	-0.332
<b>Actual Use</b>	←	L. T. Orientation	0.083	0.074	-0.076	0.051	-2.623***
<b>Actual Use</b>	←	Power Distance	-0.120	0.002	-0.045	0.143	1.523
<b>P. Usefulness</b>	←	P. Ease Of Use	0.393	0.000	0.881	0.000	4.251***
<b>Attitude</b>	←	P. Ease Of Use	0.042	0.358	0.805	0.000	4.64***
<b>Attitude</b>	←	P. Usefulness	1.037	0.000	0.202	0.132	-4.804***
<b>B. Intention</b>	←	Attitude	1.437	0.000	0.800	0.000	-2.024**
<b>B. Intention</b>	←	P. Usefulness	-1.007	0.004	0.037	0.680	2.922***
<b>Actual Use</b>	←	B. Intention	0.064	0.137	0.224	0.000	2.958***

Notes: \*\*\* p-value < 0.01; \*\* p-value < 0.05; \* p-value < 0.10

## 6.7. HYPOTHESIS TESTS

Table 6.17 shows the structural paths between the relevant factors of the path diagrams, that lots of paths statistically significant for Afghanistan's sample rather than the Turkish sample while showing more positive relations for the Turkish sample than Afghanistan's sample. And also for testing H14 we perform a multi-group test. The multi-group comparisons reveal some significant differences which have shown in table 6.16.

**Table 6.17.** Summary of Hypotheses Testing Results

<b>Hn</b>	Hypothesis	<b>Turkey</b>			<b>Afghanistan</b>		
		R	P	Result	R	P	Result
<b>H1</b>	P. usefulness ← P. ease of use	0.693	***	Support	0.434	***	Support
<b>H2</b>	Attitude ← P. ease of use	0.713	***	Support	-0.096	0.215	Reject
<b>H3</b>	Attitude ← P. usefulness	0.076	Ns	Reject	0.802	***	Support
<b>H4</b>	B. intention ← P. usefulness	0.006	Ns	Reject	-0.088	0.320	Reject

<b>H5</b>	B. intention	←	Attitude	0.876	***	Support	0.920	***	Support
<b>H6</b>	Actual use	←	B. intention	0.427	***	Support	0.110	0.046	Support
<b>H7</b>	B. intention	←	Perceived risk	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H8</b>	B. intention	←	T. R. Index	0.155	0.039	Support	-0.624	0.001	Support
<b>H8a</b>	B. intention	←	Optimism	0.097	0.037	Support	< 0.1	Ns	Reject
<b>H8b</b>	B. intention	←	Innovativeness	< 0.1	Ns	Reject	-0.149	0.003	Support
<b>H8c</b>	B. intention	←	Discomfort	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H8d</b>	B. intention	←	Insecurity	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H9</b>	P. ease of use	←	T. R. Index	0.759	***	Support	0.394	***	Support
<b>H9a</b>	P. ease of use	←	Optimism	0.374	***	Support	0.233	***	Support
<b>H9b</b>	P. ease of use	←	Innovativeness	0.470	***	Support	0.302	***	Support
<b>H9c</b>	P. ease of use	←	Discomfort	-0.273	***	Support	-0.122	0.014	Support
<b>H9d</b>	P. ease of use	←	Insecurity	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H10</b>	P. usefulness	←	T. R. Index	< 0.1	Ns	Reject	0.911	***	Support
<b>H10a</b>	P. usefulness	←	Optimism	< 0.1	Ns	Reject	0.641	***	Support
<b>H10b</b>	P. usefulness	←	Innovativeness	< 0.1	Ns	Reject	0.242	***	Support
<b>H10c</b>	P. usefulness	←	Discomfort	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H10d</b>	P. usefulness	←	Insecurity	0.107	0.041	Reject	< 0.1	Ns	Reject
<b>H11</b>	Actual use	←	Culture	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H11a</b>	Actual use	←	P. Distance	-0.103	0.081	Support	-0.211	***	Support
<b>H11b</b>	Actual use	←	U. Avoidance	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H11c</b>	Actual use	←	Collectivism	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H11d</b>	Actual use	←	L. T. O.	-0.117	0.044	Support	< 0.1	Ns	Reject
<b>H11e</b>	Actual use	←	Masculinity	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H12</b>	P. usefulness	←	Culture	< 0.1	Ns	Reject	0.318	***	Support
<b>H12a</b>	P. usefulness	←	P. Distance	0.144	0.006	Support	0.144	0.002	Support
<b>H12b</b>	P. usefulness	←	U. Avoidance	-0.101	0.052	Support	0.103	0.019	Support
<b>H12c</b>	P. usefulness	←	Collectivism	< 0.1	Ns	Reject	0.190	***	Support
<b>H12d</b>	P. usefulness	←	L. T. O.	< 0.1	Ns	Reject	0.185	***	Support
<b>H12e</b>	P. usefulness	←	Masculinity	< 0.1	Ns	Reject	-0.124	0.010	Support

<b>H13</b>	P. ease of use	←	Culture	0.278	***	Support	0.147	***	Support
<b>H13a</b>	P. ease of use	←	P. Distance	0.151	0.006	Support	< 0.1	Ns	Reject
<b>H13b</b>	P. ease of use	←	U. Avoidance	0.102	0.060	Support	0.127	0.007	Support
<b>H13c</b>	P. ease of use	←	Collectivism	< 0.1	Ns	Reject	< 0.1	Ns	Reject
<b>H13d</b>	P. ease of use	←	L. T. O.	0.192	***	Support	0.130	0.008	Support
<b>H13e</b>	P. ease of use	←	Masculinity	0.117	0.036	Support	< 0.1	Ns	Reject

Note: \*\*\* p-value < 0.001



## CHAPTER 7

### DISCUSSION AND CONCLUSION

The first research impetus for this study is to investigate the factors that affect the intention and attitudes of Turkish and Afghan consumers toward using mobile marketing applications, for investing the mentioned purpose, as informed in the structural model we considered TAM as base model, perceived risk, culture and TRI considered as external variables to the TAM in our study. Our data provide adequate support for most hypothesized effects for Afghanistan sample than Turkish sample.

The first step in investigating the first impetus of our study is whether Perceived ease of use and perceived usefulness of mobile marketing applications influence the intention and attitudes of Turkish and Afghan consumers. Our study found that perceived ease of use of mobile marketing applications has a positive impact (69.3%) on perceived usefulness of mobile marketing applications for Turkish sample, for Afghanistan sample it was just 43.3%, this implies that ease of use mobile marketing applications strongly influence Turkish consumers than Afghans. In addition, perceived ease of use of mobile marketing applications has a positive strong impact (71,3%) on attitude of Turkish consumers toward using mobile marketing applications while usefulness of mobile marketing applications did not reveal a significant impact on Turkish consumers attitudes, on the other hand usefulness of mobile marketing applications has a positive more stronger impact (80,2%) on Afghan consumers attitudes toward using mobile marketing applications but ease of use of mobile marketing applications did not have any significant impact on Afghan consumers attitudes. Also our study revealed much higher impact for Turkish and Afghan consumers' attitudes on behavioral intention of using mobile marketing applications (87.6%, 92%). Lastly, in investigating the impact of behavioral intention to use mobile marketing applications on actual use of mobile marketing application our study show 42.7% for Turkish sample and 11% for Afghanistan sample.

The second step of first impetus of our study is to investigate the impact of technology readiness index or factors under technology readiness index, as external variable on perceived ease of use, usefulness and consumers behavioral intention to use mobile marketing applications. According to our study findings TRI has a positive

impact (75.9%) on ease of use of mobile marketing application for Turkish sample, while in factors under TRI, optimism and innovativeness has a positive impact (37.4%, 47%) and discomfort has a negative impact (-27.3%) on ease of use of mobile marketing applications for Turkish sample, on the other hand, TRI has a positive impact but weaker than Turkish sample (39.4%) on ease of use of mobile marketing applications for Afghanistan sample, while in factors under TRI, like Turkish sample, optimism and innovativeness has a positive impact (23.3%, 30.2%) and discomfort has a negative impact (-12.2%) on ease of use of mobile marketing applications for Afghanistan sample. In addition, TRI doesn't have significant impact on usefulness of mobile marketing applications, while in TRI covered factors, unexpectedly insecurity has a positive impact (10.7%) on usefulness of mobile marketing applications for Turkish sample, on the contrary TRI has a positive impact (91.1%) on perceived usefulness of mobile marketing applications, while in TRI forming constructs, optimism and innovativeness have positive impact (64.1%, 24.2%) on usefulness of mobile marketing applications for Afghanistan sample. Lastly our study found that in general TRI has a positive impact (15.5%) on Turkish consumers behavioral intention to use mobile marketing applications, while in TRI covered factors just optimism has a positive impact (9.7%) on Turkish consumers behaviors, on the other side we found that in general, TRI has a negative impact (-62.4%) on Afghan consumers behavioral intention to use mobile marketing applications, while in TRI covered factors just innovativeness has a significant negative impact (-14.9%) on Afghan consumers behaviors, this implies that innovativeness in the field of using mobile marketing applications negatively affect Afghan consumers behaviors or they are not ready yet to adopt with, since they cannot figure out new high-tech products and services and advice others on mobile marketing applications.

The third step of first impetus of our study is to investigate the impact of cultural values on perceived ease of use, usefulness and actual use of mobile marketing applications. According to our study findings, culture has a positive impact (27.8%) on perceived ease of use of mobile marketing applications, while among CVSCALE-forming constructs the cultural values of power distance, uncertainty avoidance, long term orientation and masculinity have positive influence (15.1%, 10.2%, 19.2%, 11.7%) on perceived ease of use of mobile marketing applications for Turkish sample,

on the other side, for Afghanistan sample, culture has a positive impact (14.7%) on perceived ease of use of mobile marketing applications, while among CVSCALE-forming constructs just the cultural values of uncertainty avoidance and long term orientation have positive influence (12.7%, 13%) on perceived ease of use of mobile marketing applications. In addition, culture doesn't have significant influence on perceived usefulness of mobile marketing applications but in culture forming constructs, just power distance has positive impact (14.4%) and uncertainty avoidance has negative impact (-10.1%) on perceived usefulness of mobile marketing applications for Turkish sample, on the other hand, for Afghanistan sample, culture has a positive impact (31.8%) on perceived usefulness of mobile marketing applications while all of culture forming constructs except masculinity (-12.4%) have positive impact (power distance = 14.4%, uncertainty avoidance = 10.3%, collectivism = 19%, long term orientation = 18.5%) on perceived usefulness of mobile marketing applications. As a last hypothesized for CVSCALE, in our study the impact of culture on actual use of mobile marketing applications was found insignificant for both countries samples while in culture forming constructs, for Turkish sample, power distance and long term orientation have negative impact (-10.3%, 11.7%) and for Afghanistan sample, just power distance has also negative impact (21.1%) on actual use of mobile marketing applications. Moreover, according to the findings results, the order of the culture dimensions estimates for Turkish sample from the highest score to the lowest score are: UA > LTO > Collectivism >PD >Masculinity. Similarly, for Afghanistan sample the order of the culture dimensions are also mostly the same: LTO >UA> Collectivism >PD >Masculinity, except for UA and LTO. Considering this, it is concluded that UA, LTO and Collectivism are the most important dimensions in Turkish-Afghan culture, so it can be interpreted that in our study, unknown and ambiguous situations are to some extent unwelcomed, respect for past traditions and stability outweigh compatibility to new circumstances, and the ties between individuals seem to be tight as they tend to be members of cohesive in-groups (Saboori & et al, 2015).

The last step of first impetus of our study is to investigate the impact of perceived risk on behavioral intention to use mobile marketing applications. According to our study, the impact of perceived risk on intention toward mobile

marketing apps was insignificant, while perceived risk was expected to have negative impact on consumer's behavioral intent and believed as a barrier to online transactions (Wu & Wang, 2005).

The second research impetus for this study is to investigate the comparative differences between two countries, which were obtained as a result of multi-group analysis. Multiple-group analysis in structural equation modeling (SEM) is an important method to ensure the invariance of latent variable or construct measurements and the validity of theoretical models across different populations. It can be also used to test whether groups attribute the same meaning to a latent variable or construct (Evermann, 2010, p. 677).

The result of multi group analysis of our study reveal some differences between Afghanistan and Turkish samples. Firstly, findings of multi group analysis on TRI forming constructs show that three out of five relations, namely from optimism and discomfort to perceived ease of use of mobile marketing applications and from optimism to perceived usefulness of mobile marketing applications, are found to be statistically significant between Afghanistan and Turkish samples. Except for the impact of optimism on the perceived usefulness of mobile marketing applications, all of the impacts are greater for the Turkish sample than the Afghanistan sample. Regardless of the findings it is concluded that Turkish consumers are more optimistic about easiest of use of mobile marketing applications as well more discomfort about it but on the contrary, Afghan consumers are more optimistic about usefulness of mobile marketing applications.

Secondly, findings of multi group analysis show that the view of Afghan and Turkish consumers are largely equal in term of culture value scales toward mobile marketing acceptance. The only difference between them is seen in long term orientation impact on perceived usefulness and actual use of mobile marketing applications, which greater for the Afghanistan sample than Turkish sample. So the findings imply that Afghan consumers are more persistent and plan for the future is more important for them. So in our study the Afghanistan and Turkish samples show a very similar pattern in terms of cultural values, is it possible, that the well-educated, young consumers of mobile marketing apps have similar attributes, regardless of

where they are physically live (Lu & et al, 2017). One another important point that should be noticed about Afghanistan culture is that, Afghanistan is a complex country consisting of both tribal and nontribal groups which is divided by rural and urban cultural values and one that seems to be always at war internally or with outsiders. An accurate empirical assessment of the totality of Afghan culture is nearly impossible (Rarick & et al, 2013).

Thirdly, findings of the multi-group analysis show that Afghan and Turkish consumers absolutely different in term of the mobile marketing acceptance model, we found all of impacts, namely from perceived ease of use to perceived usefulness, from ease of use to attitude, from usefulness to attitude, from attitude to intention, from usefulness to intention and from intention to actual use toward mobile marketing applications statistically different between Afghan and Turkish consumers. The impact of ease of use on usefulness and attitude and the impact of intention on actual use are greater for Turkish sample rather than Afghanistan sample, on the other hand the impact of usefulness on attitude and intention and impact of attitude to behavioral intention are greater for Afghanistan sample than Turkish sample. It is conclude from findings that the intention and attitudes of Turkish and Afghan consumers toward mobile marketing applications is different, the concern of Turkish consumers are ease of use mobile marketing applications but for Afghan consumers the usefulness of mobile marketing applications are more effective. Moreover, Turkish consumers more intent to use it than Afghan consumers. As we noticed that Afghan consumers intention and attitudes toward usefulness of mobile marketing apps were greater than Turkish consumers but Afghan consumers less intent to use the mobile marketing apps. The reason of this pattern may be mistrust, insecurity, bad infrastructure or other factors that does not examined in our study.

## **IMPLICATIONS**

Regardless of the restrictions, this examination is one of the initials to give experimental evidence of the cross-cultural likenesses and contrasts toward mobile marketing applications among Turkey and Afghanistan, and the readiness of Afghan and Turkish consumers to adopt mobile marketing applications. This study expands the acceptance of mobile marketing applications by utilizing some additional



arrangement of contrasts like culture value scales, technology readiness index and perceived risk. Some outcomes of the study are valuable and significant for the literature of mentioned models and acceptance of mobile marketing applications.

This study also provide insights into the consumers' readiness for accepting mobile marketing applications and gives experiences into how culture can show at the individual level and impact the attitude and behavioral intention of mobile marketing subscribers in Afghanistan and Turkey.

This research also gives extra proof on the unique roles of culture values in determining consumers' attitudes and behavioral intention. The solid anticipating impacts of cultural values along Hofstede's cultural dimensions in our model, most likely reveal the cultural values in affecting attitude and behavioral intention of young and well-educated individuals toward mobile marketing applications in Afghanistan and Turkey. This outcomes upholds Adler's theory that culture is something that constructions one's convictions or insights and shapes conduct toward the world (Lu & et al, 2017).

## **LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

Although in this study, the most important factors that affect the intentions and attitudes of consumers towards mobile marketing applications were considered, to increase the validity of the results, there are definitely other influential factors that can be addressed in future researches.

Although we tried to have a delegate and comprehensive sample but due to time constraints and the occurrence of Coronavirus disease, we could not investigate with a large number of participants, moreover, data collection in Afghanistan was largely carried out in Mazar-e-Sharif, Kabul and Herat, and data collection in Turkey was also conducted extensively in Kocaeli and Istanbul cities on university students, which could not accurately represent all areas of countries. Accordingly, future studied can address a larger sample from different areas to draw more valid results.

According to the quantitative data collection method perhaps our study cannot investigate all of the dimensions of the variables that affect intention and attitudes of

consumers toward mobile marketing applications so, future studies can take into account the qualitative data collection methods to in-depth describe and interpret.

This research also has limitations that one of the most important was that some participants did not use mobile phones for shopping, second, Low level of literacy of some participants.

The next limitation will be the issue of hesitance or reluctance. It is in this way conceived that some individuals will be hesitant in taking an interest in the investigation. What's more, the utilization of an overview instrument to assemble data has inborn constraints since it is restricted to the individuals who respond. The pace of reaction places limits on the data gathered in the investigation since the quantity of responses has a factual impact. The data gathered may not be valid for other geographical territories and the consequences of the investigation may not be delegate somewhere else.

## REFERENCES

- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior And Human Decision Processes*, 50, 179-211 .
- Adiyarta, K., & et al. (2018). User acceptance of E-Government ServicesBased on TRAM model. *IOP Conference Series: Materials Science and Engineering* (pp. 1-10). IOP Publishing.
- Agrebi, S., & Jallais, J. (2015). Explain the intention to use smartphones for mobile shopping. *Journal of Retailing and Consumer Services*, 22, 16-23.
- Ahmad, M. (2014). Unified Theory of Acceptance and Use of Technology (UTAUT). A Decade of Validation and Development. *Fourth International Conference on ICT in our lives 2014*, (pp. 20-22).
- Ajzen, I. (2019). Retrieved Oct 27, 2019, from <https://people.umass.edu/aizen:https://people.umass.edu/aizen/tpb.diag.html#null-link>
- Akturan, U., & Tezcan, N. (n.d.). Mobile Banking Adoption of the Youth Market: Perceptions and Intentions. *Marketing Intelligence & Planning*, 30(4), 1-18.
- Armağan, E., & Gider, A. (2014). Mobil Pazarlama Ve Üniversite Öğrencilerinin Mobil Pazarlama Algısı: Nazilli'deki Üniversite Öğrencilerine Yönelik Bir Araştırma . *AJIT-e: Online Academic Journal of Information Technology*, 5, 27-44.
- Arslan, İ., & Arslan, P. (2012). *Mobil Pazarlama* (1 ed.). İstanbul: Papatya.
- Ashraf, M. F., & Kamal, Y. (2010). Acceptance Of Mobile Marketing Among University Students. *Mustang Journal of Business & Ethics*, 9-27.
- Aurigemma, S., & Mattson, T. (2019). Effect of long-term orientation on voluntary security actions. *Information & Computer Security*, 27, 122-142 .
- Balasubramanian, S., Peterson , R., & Jarvenpaa, S. (2002). Exploring the Implications of M-Commerce for Markets and Marketing. *Journal of the Academy of Marketing Science*, 30, 348-361. .
- Bamoriya, H. (2014). QR Code Based Marketing In India And Japan. *Acropolis Faculty of Management and Research*, 11(2), 20-29.
- Bang, H.-K., & et al. (2000, June ). Consumer Concern, Knowledge, Belief, and Attitude toward Renewable Energy: An Application of the Reasoned Action Theory. *Psychology & Marketing*, 17(6), 449-468 .
- Barutçu, S. (2007). Attitudes Towards Mobile Marketing Tools: A Study of Turkish Consumers. *Journal of Targeting, Measurement and Analysis for Marketing*, 16, 26-38.

- Becker, M. (2005, October 11). *Mobile Marketing Ecosystem*. Retrieved October 13, 2019, from Mobile Marketing Association: <https://webcache.googleusercontent.com/search?q=cache:Qe2OKVc9zC0J:https://identitypraxis.com/2005/10/11/research-update-unfolding-of-the-mobile-marketing-ecosystem-a-growing-strategic-network/+&cd=1&hl=en&ct=clnk&gl=tr>
- Berman, B. (2016). Planning and Implementing Effective Mobile Marketing Programs. *Business Horizons*, 59, 431-439.
- Biroğul, S., Elmas, Ç., & Çetin, A. (2011, March). Planning of the GSM Network Broadcast Control Channel With Data Fusion. *Expert Systems with Applications*, 38(3), 2421-2431.
- Bozkurt, F., & Ergen, A. (2012). Pazarlama İletişiminde Yeni Bir Mobil Pazarlama Aracı: 2 Boyutlu Barkodlar. *Pazarlama ve Pazarlama Araştırmaları Dergisi*, 43-64.
- Carroll, A., & et al. (2007). Consumer Perceptions And Attitudes Towards SMS Advertising: Recent Evidence From New Zealand. *International Journal of Advertising*, 26(1), 79-98.
- Cătoi, I., & Gârdan, D. A. (2010). Romanian Consumer Perception Towards Mobile Marketing Campaigns. *Annales Universitatis Apulensis Series Oeconomica*, 12(2), 731-741.
- Çınar, G. (2015, May). Using Micro Location-Based Technologies In Mobile Marketing: Integration Of SMS With MASS, Segmented And Location-Based Customer Data.
- Collier, J. E. (2020). *Applied Structural Equation Modeling Using AMOS*. New York: Routledge 52 Vanderbilt Avenue, New York, NY 10017.
- Davis, F., Bagozzi, R., & Warshaw, P. (1989, August). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35(8), 982-1003 .
- Direct Marketing Association . (2014). [www.thedma.org](http://www.thedma.org). Retrieved Oct 17, 2019, from [www.dmaresponsibility.org](http://www.dmaresponsibility.org): [https://thedma.org/wp-content/uploads/DMA\\_Guidelines\\_January\\_2014.pdf](https://thedma.org/wp-content/uploads/DMA_Guidelines_January_2014.pdf)
- Don , C., & Maurice , H. (2010). Technology Readiness. *Research-Technology Management*, 52-59.
- Evermann, J. (2010, 12 Oct ). Multiple-Group Analysis Using the SEM Package in. *Taylor & Francis Group, LLC*(1070-5511 print/1532-8007 online), 677-702. doi:10.1080/10705511.2010.510070
- Faulds, D., & Raju, P. (2018). The Mobile Shopping Revolution: Aninterview with Chuck Martin. *Business Horizons*, 61, 665-670.

- Feng, X., Fu, S., & Qin, J. (2016). Determinants Of Consumers' Attitudes Toward Mobile Advertising: The Mediating Roles Of Intrinsic And Extrinsic Motivations. *Computers in Human Behavior*, 63, 334-341.
- Gao, S., Krogstie, J., & Gransæther, P. (2008). Mobile Services Acceptance Model. *International Conference on Convergence and Hybrid Information Technology 2008* (pp. 446-453). Norway: Norwegian University of Science and Technology.
- GeoMarketing. (2016, Aug 19). *Yext*. Retrieved 05 26, 2021, from <https://geomarketing.com/the-state-of-mobile-proximity-marketing-join-the-discussion-on-tuesday>
- Goneos-Malka, A., Strasheim, A., & Grobler, A. (2014). Conventionalists, Connectors, Technoisseurs and Mobilarti: Differential profiles of Mobile Marketing Segments Based on Phone Features and Postmodern Characteristics Of Consumers. *Journal of Retailing and Consumer Services*, 905-916.
- Groß, M. (2015). Mobile shopping: A classification framework and literature review. *International Journal of Retail & Distribution Management*, 221-241.
- Ha, Y., & Im, H. (2014). Determinants of Mobile Coupon Service Adoption: Assessment of Gender Difference. *International Journal of Retail & Distribution Management*, 42, 441-459.
- Harper, R. (2003). People Versus Information: The Evolution of Mobile. *Appliance Studio, Bristol, the Digital World Research Centre, University of Surrey, England*.
- HMBP, R. (2016). Role of National Culture on the Use of E-Government Services in Sri Lanka. *Journal of Business & Financial Affairs*, 5:2, 1-7.
- Hofstede, G. (2021, 05 26). Retrieved from Hofstede Insights: <https://www.hofstede-insights.com/>
- Holmes, A., Byrne, A., & Rowley, J. (2014). Mobile Shopping Behaviour: Insights Into Attitudes, Shopping Process Involvement And Location. *International Journal of Retail & Distribution Management*, 42(1), 25-39.
- Hosseini, M., Fatemifar, A., & Rahimzadeh, M. (2015, February). Effective Factors Of The Adoption Of Mobile Banking Services By Customers. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 4.
- Hsiao, W.-H., & Chang, T.-S. (2014). Understanding Consumers' Continuance Intention Towards Mobile Advertising: A Theoretical. *Behaviour & Information Technology*, 33, 730-742.
- Islam, M. R., Islam, M. R., & Mazumder, T. A. (2010). Mobile Application and Its Global Impact. *International Journal of Engineering & Technology*, 104-111.

- Jayawardhena, C., & et al. (2008). Antecedents to Permission Based Mobile Marketing: An Initial Examination. *European Journal of Marketing*, 43, 473-499.
- Jee, J., & Lee, W.-N. (2002). Antecedents And Consequences Of Perceived Interactivity: An Exploratory Study. *Journal of Interactive Advertising*, 3, 27-43.
- Jung, J. (2009). Factors Influencing Consumer Acceptance Of Mobile Advertising. *The University of Texas at Austin* .
- Kaplan, A. M. (2012, March–April). If You Love Something, Let It Go Mobile: Mobile Marketing And Mobile Social Media 4x4. *Business Horizons*, 55(2), 129-139.
- Karaca, Ş. (2010). The Concept Of Profile Is The Customer Activities And Appearances Of The Same or Similar Values. *Journal Of Academic Approaches*, 1(1), 69-81.
- Karaca, Y., & Ateşoğlu, İ. (2006). Mobil Reklamcılık ve Uygulamaları: Kurumsal Çerçeve. *Pİ Dergisi*, Sayı: 18.
- Kautonen, T. (2007). Permission-Based Mobile Marketing And Sources of Trust in Selected European Markets. *Journal of Systems and Information Technology*, 9, 104-123.
- Kiat, Y., Samadi, B., & Hakimian, H. (2017). Consumer Behaviour towards Acceptance of Mobile Marketing. *International Journal of Business and Social Science*, 8, 92-105.
- Kiškis , M. (2010). Legal Regulation Of Electronic Marketing. *Mykolas Romeris University, Faculty of Social Informatics, Department of Electronic Business*, 3, 349–370.
- Klein, M. (2014). Mobile Marketing – A Classification Framework And Effects On Marketing Mix. *Journal of Management, Marketing And Logistics*, 1(1), 276-285.
- Kumar, D., & Rajput, H. (2014, Mar ). Consumers' Privacy & Ethical Issues Towards MobileMarketing in India. *Indian Journal Of Applied Research*, 4(3), 251-253.
- Leppäniemi, M., & Karjaluoto, H. ( 2008 , June). Mobile Marketing: From Marketing Strategy To Mobile Marketing Campagn Implementation. *International Journal of Mobile Marketing*, 3, 50-61.
- Liu, F., & et al. (2015). Roles of Perceived Value and Individual Differences in the Acceptance of Mobile Coupon Applications. *Internet Research*, 25, 471-495.
- Louangrath, P. (2018). Reliability and Validity of Survey Scales. *International Journal of Research & Methodology in Social Science*, 4, 50-62.

- Lu, J., & et al. (2017). Comparison of Mobile Shopping Continuance Intention Between China and USA From an Espoused Cultural Perspective. *Computers in Human Behavior*, 75, 130-146.
- Madden, T., Ellen, P., & Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action . *Personality and Social Psychology Bulletin*, 18(1), 3-9.
- Mahapatra, S. (2017). Mobile Shopping Among Young Consumers: An Empirical Study in an Emerging Market. *International Journal of Retail & Distribution Management*, 45, 930-949.
- Martin, K., & Shilton, K. (2016). Why Experience Matters to Privacy: How Context-Based Experience Moderates Consumer Privacy Expectations for Mobile Applications. *Journal Of The Association For Information Science And Technology*, 67(8), 1871–1882.
- McCorkle, D., & et al. (2013). The Antecedent Effects Of SMS Marketing. *International Journal of Business, Marketing, and Decision Sciences*, 6, 91.
- Meritt, A. (2016, November 23). *Airship*. Retrieved Oct 12, 2019, from <https://www.airship.com/blog/building-your-first-mobile-marketing-strategy/>
- Michael, A., & Salter, B. (2006 ). *Mobile Marketing: Achieving Competitive Advantage through Wireless technology*. New York: Butterworth, Heinemann.
- Mirzaei, H., & et al. (2012). Differences of “Traditional Marketing” in Opposition to “ElectronicMarketing”. *2012 International Conference on Economics, Business and Marketing Management*. 29, pp. 231-234. Kuala Lumpur, Malaysia: IACSIT Press.
- Musa, R., & et al. (2016). The Predictors and Consequences of Consumers’ Attitude Towards Mobile Shopping Application. *Procedia Economics and Finance*, 37, 447 – 452.
- Nguyen , Q., & et al. (2018). Theory of Reasoned Action as a Framework for Communicating Climate Risk: A Case Study of School Children in the Mekong Delta in Vietnam. *Sustainability*, 1-14.
- Oliveira, T., Thomas , M., & Baptista, G. (2016). Mobile Payment: Understanding the Determinants of Customer Adoption and Intention to Recommend the Technology. *Computers in Human Behavior*, 61, 1-25.
- Özgüven, N. (2013). *Mobil Pazarlama ve Mobil Reklam* (1 ed.). Bursa: Dora Yayın.
- Öztaş, Y. (2015). The Increasing Importance of Mobile Marketing in the Light of the Improvement of Mobile Phones, Confronted Problems Encountered in Practice, Solution Offers and Expectations. *Social and Behavioral Sciences*, pp. 1066 – 1073.

- Parasuraman, A., & Colby, C. (2015). An Updated and Streamlined Technology Readiness Index: TRI 2.0. *Journal of Service Research*, 18(1), 59-74.
- Rarick, C., & et al. (2013). Afghanistan's Younger, Elite and Educated Population: A Cultural Assessment and Possible Implications for the Economic and Political Future of the Country. *Global Journal of Management and Business Research Administration and Management*, 1-8.
- Rohm, A. J., & et al. (2012). Brand in the Hand: A Cross-Market Investigation of Consumer Acceptance of Mobile Marketing. *Business Horizons*, 55(5), 485-493.
- Saboori, F., & et al. (2015). Development and Validation of a Cultural Dimensions Scale (CDS) and Its Application in an Iranian Context. *Mediterranean Journal of Social Sciences*, 6, 367-378.
- Saeed, Y. M., & Ali Bekhet, H. (2018). Influencing Factors of Mobile Marketing among Young Malaysian Customers. *Australian Journal of Basic and Applied Sciences*, 63-72.
- Salehi, M., & et al. (2012, January). Dissimilarity of E-marketing VS Traditional Marketing. *International Journal of Academic Research in Business and Social Sciences*, 2, 510-515.
- Salo, J., Sinisalo, J., & Karjaluoto, H. (2008). Intentionally Developed Business Network for Mobile Marketing: A Case Study from Finland. *Journal of Business & Industrial Marketing*, 23, 497-506.
- Sarabdeen, J. (2008). Laws on Right to privacy in Mobile Marketing. *WSEAS Transactions on Business and Economics*, 5, 280-290.
- Scharl, A., Dickinger, A., & Murphy, J. (2005). Diffusion and Success Factors of Mobile Marketing. *Electronic Commerce Research and Applications*, 159-173.
- Şevket, K. (2002). GSM Hücresel Telefon Sistemleri. *Süleyman Demirel Üniversitesi Teknik Eğitim Fakültesi Elektronik Bilgisayar Eğitimi Bölümü*, 1-20.
- Sharee, M. A., & et al. (2017, August). Content Design of Advertisement for Consumer Exposure: Mobile Marketing Through Short Messaging Service. *International Journal of Information Management*, 37(4), 257-268.
- Singh, S., & Swait, J. (2017). Channels for Search and Purchase: Does Mobile Internet Matter? *Journal of Retailing and Consumer Services*, 39, 123-134.
- Slabeva, K. S. (2003). Towards a Reference Model for M-Commerce Applications. *MCM Institute at the University St. Gallen Blumenbergplatz 9, 9000 St. Gallen, Switzerland*.



- Smutkupt, P., Krairit , D., & Khang , D. (2012). Mobile Marketing and Consumer Perceptions of Brand Equity. *Asia Pacific Journal of Marketing and Logistics*, 24, 539-56.
- Stuart, G., & Palmieri , P. (2017). *Mobile Marketing Association*. Retrieved Oct 16, 2019, from <https://www.mmaglobal.com/files/documents/mobilemarketingroadmap.pdf>
- Sultan, F., Rohm, A., & Gao, T. (2009). Factors Influencing Consumer Acceptance of Mobile Marketing:A Two-Country Study of Youth Markets. *Journal of Interactive Marketing*, 23(4), 308-320.
- The University of Texas at Austin*. (2012, August). Retrieved Dec 17, 2020, from [https://stat.utexas.edu/images/SSC/Site/AMOS\\_Tutorial](https://stat.utexas.edu/images/SSC/Site/AMOS_Tutorial).
- Tseng, C.-L., & et al. (2006, August). Feasibility Study on Application of GSM–SMS Technology to Field Data Acquisition. *Computers and Electronics in Agriculture*, 53(1), 45-59.
- Tunsakul , K. (n.d.). The Evolution of Mobile Marketing. *Executive Journal. Bangkok University*, 187-188-189-192.
- Varnali, K., Toker, A., & Yilmaz, C. (2010). *Mobile Marketing; Fundamentals and Strategy*. United State of America: Library of Congress Cataloging-in-Publication Data.
- Varshney, S., & Joy, J. (2015). Consumer Attitudes toward Mobile Marketing and Its Impact on Customers. *International Journal of Information, Business and Management*, 7, 44-64.
- Venkatesh , V. (2000). Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model. *Information Systems Research*, 11, 342–365.
- Venkatesh , V., & Davis , F. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science* , 46, 186–204.
- Venkatesh, V., & Bala , H. (2008, May). Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences* , 39, 273-315.
- Venkatesh, V., & et al. (2003, September). User Acceptance Of Information Technology: Toward A Unified View. *MIS Quarterly*, 27, 425-478.
- Waheed, A., & Yang, J. (2018). The impact of mobile marketing on online consumer buying behaviour: empirical evidence from Pakistan. *International Journal of Mobile Communications*, 16(6), 624-643.
- Waldt, D., Rebello , T., & Brown, W. (2009, September). Attitudes of Young Consumers towards SMS Advertising. *African Journal of Business Management* , 3 (9), 444-452.

- Watson, C., Carthy, J., & Rowley, J. (2013). Consumer Attitudes towards Mobile Marketing in the Smartphone Era. *International Journal of Information Management*, 33, 840–849.
- Watson, C., McCarthy, J., & Rowley, J. (2013). Consumer Attitudes towards Mobile Marketing in the Smart Phone Era. *International Journal of Information Management*, 33(5), 840-849.
- Wu, J.-H., & Wang, S.-C. (2005). What drives mobile commerce? An empiracal evaluation of the revised technology acceptance model. *Information and Management*, 719–729720.
- Yamamoto, G. (2008, Dec 15). *www.mobilemarketer.com*. Retrieved Oct 16, 2019, from <http://goncatelli.blogspot.com/2008/12/mobil-pazarlama-swot-analizi-2009.html>
- Yoo , B., Donthu , N., & Lenartowicz , T. (2011). Measuring Hofstede’s Five Dimensions of Cultural Values at the Individual Level: Development and Validation of CVSCALE. *Journal of International Consumer Marketing* , 1-17.
- Zegrean , P., & Paraschiv , D. (2013). Enhancing The Perceived Value Of Mobile Marketing. A Romanian Case Study. *Economics & Sociology*, 6, 72-77.
- Yousif , R. O. (2012). Factors affecting consumer attitudes towards mobile marketing. *Database Marketing & Customer Strategy Management*, 147–162.
- Zegrean , P., & Paraschiv , D. (2013). ENHANCING THE PERCEIVED VALUE OF MOBILE MARKETING. A ROMANIAN CASE STUDY. *Economics & Sociology*, 6, 72-77.

## APPENDICES

### APPENDIX A: QUESTIONNAIRE FORM

**1.1. Gender:**

Female  Male

**1.2. Age:** \_\_\_\_\_

**1.3. Education Status:**

Elementary Education  High School  Undergraduate  Graduate or Upper

**1.4. Profession:**

Student  Worker / Employee  Unemployed

**1.5. Monthly net Income:**

No Net Income  Less than 150\$  151-300\$  301-450\$  More than 450\$

**1.6. Do you have smartphone?**

Yes  No

**1.7. How many hours in a day do you use internet via smartphone?**

Less than 1 hour  1 hour  2 hour  3 hour  More than 3 Hours

Mobile marketing is the use of the mobile medium as a communications and entertainment channel between a brand and an end-user. Mobile marketing is the only personal channel enabling spontaneous, direct, interactive and/or targeted communications, any time, any place. Mobile marketing is the most personal medium available. People run their lives off of mobile. It's business, it's personal, it's information gathering. It's on 24/7.

**1.8. USE: Do you use mobile marketing applications?**

Yes  No

**1.9. How often do you shop via mobile phones?**

Once a week  Once a month  Once every six months  Once a year  Never

**1.10. Determine how often do you use mobile marketing applications in shopping?**

	Always	Often	Sometimes	Rarely	Never
Purchasing Product					
Food Ordering					
Hotel Reservation					
Booking Flight tickets					
Mobile Banking					
Sell Products					
Getting information about products					

**1.11. USE:** On average, how much time to you spend on **mobile marketing apps** every day.

- Less than 1 hour    
  1 hour    
  2 hour    
  3 hour    
  More than 3 Hours

Please note your agreement level according to your willingness to each of the questions (1: Strongly agree, 2: Agree, 3: Neither Agree nor Disagree, 4: Disagree, 5: Strongly Disagree)

<b>Technology Readiness Index (TRI)</b>	1	2	3	4	5
<i>OPT1: Mobile marketing apps contribute to a better quality of life.</i>					
<i>OPT2: Mobile marketing apps gives me more freedom of mobility.</i>					
<i>OPT3: Mobile marketing apps gives people more control over their daily lives.</i>					
<i>OPT4: Mobile marketing apps makes me more productive in my personal life.</i>					
<i>INN1: Other people come to me for advice on mobile marketing apps.</i>					
<i>INN2: In general, I am among the first in my circle of friends to acquire mobile new marketing apps when it appears.</i>					
<i>INN3: I can usually figure out new high-tech products and services without help from others.</i>					
<i>INN4: I keep up with the latest technological developments in my areas of interest.</i>					
<i>DIS1: When I get technical support from a provider of a high-tech product or service, I sometimes feel as if I am being taken advantage of by someone who knows more than I do.</i>					
<i>DIS2: Technical support lines are not helpful because they don't explain things in terms I understand.</i>					
<i>DIS3: Sometimes, I think that mobile marketing apps are not designed for use by ordinary people.</i>					
<i>DIS4: There is no such thing as a manual for a high-tech product or service that's written in plain language.</i>					
<i>INS1: People are too dependent on technology to do things for them.</i>					
<i>INS2: Too much technology distracts people to a point that is harmful.</i>					
<i>INS3: Technology lowers the quality of relationships by reducing personal interaction</i>					
<i>INS4: I do not feel confident doing business with a place that can only be reached online.</i>					
<b>Perceived Risk</b>					
<i>RISK1: I think using mobile marketing services in transactions has potential risk.</i>					





*Masculinity3: Solving difficult problems usually requires an active, forcible approach, which is typical of men.*

*Masculinity4: There are some jobs that a man can always do better than a woman.*




## **RESUME**

After completing my primary, secondary and high school educations in Istiqlal High School Mazar-e-Sharif, I began university at the public university of Jawzjan, faculty of finance and banking, and graduated from there in 2016. To pursue my education, I traveled to Turkey in 2017, and took me a year to find myself in a prepared situation to take one step further towards my educational career. I started my Master's term in the prestigious University of Kocaeli, Institute of Social Sciences, Faculty of Business Administration, and Department of Production Management and Marketing in September of 2018. I wish you luck who you are reading this resume right now,

Faithfully yours;

Mohammad Karim Azimi

