AN EMPIRICAL RESEARCH ON THE DETERMINATION OF CONSUMER PERCEPTIONS RELATED TO MOBILE MARKETING APPLICATIONS

Abdulvahap BAYDAŞ[1]
Murat BAYAT[2]
Mehmet Emin YAŞAR[3]

Abstract

Mobile marketing has introduced significant changes to the business world, making it easier to access personalized messages at any time and place. This research was conducted to determine the factors that affect consumer choice for mobile marketing applications. The research data were collected with the help of a face to face survey applied to individuals in Bingöl and Diyarbakır provinces. Data were examined by Frequency Analysis, Importance, Participation Level and Factor Analysis. The study is based on two main axes. The first axis is the mobile marketing applications and the second axis is the effective factors in mobile marketing. In the first axis, it has been seen that there are significant relationships between the variables representing the shopping tendency and behaviour towards mobile marketing applications and the variables in the mobile marketing preference determined in the study. In particular, 5 (five) variables came to the fore in the research; SMS, Advertising Applications (AA), Customer Rewards (CR), Permitted Message Applications (PMA) and Disturbing Messages (DM). It was found that SMS, AA, CR and PMA factors had a positive effect on purchasing and DM had a negative effect on purchasing. In the second axis, 6 (six) basic elements were determined as a result of factor analysis. The factors in question; effective advertising, complaint behaviour, indifference, unresponsiveness, normality and inconsistency. The factor

---

[1] Assoc. Prof. Dr., Faculty of Business, Düzce University, Turkey. abdulvahapbaydas@duzce.edu.tr
[2] Assist. Prof. Dr., Faculty of Business, Düzce University, Turkey. murat.bayat@duzce.edu.tr
[3] Lecturer, Solhan Vocational Scool of Health Services, Bingöl University, Turkey. meyasar@bingol.edu.tr

analysis conducted in the provinces, two different factors were identified in Diyarbakır, where four factors were the same in both provinces (satisfaction, rewarding, complaint behaviour and image). There were three different factors: Restlessness, Indifference and Discomfort in Bingöl.

Keywords: Mobile Marketing Applications, Factors Effective in Mobile Marketing, Mobile Marketing Communication Elements.

Introduction

Technological developments have affected business life on the one hand and created new marketing methods and an intense competitive environment on the other hand. In particular, the use of smart mobile phones with connection to internet in any area of life has facilitated consumers having access to meet their needs anytime and anywhere, while the businesses had the opportunity to offer their products anytime and anywhere (Armağan ve Gider, 2014:28; Gider, 2014; Sürücü and Bayram, 2016).

Mobile marketing is one of the fastest growing areas of technology-oriented marketing. Especially in regions identified as third world countries, most people do not have an internet-connected computer, but almost all have a smart mobile phone. Video, audio and photo sharing, blogging, internet surfing, email access and communication with people from all over the world are realized through this technology. In terms of enterprises, it is a necessity to benefit from this most widely used technology in the world in terms of both communicating with existing customers and reaching potential customers (Safko, 2010:635). In addition, the marketing activities carried out by the mobile phones that consumers carry with them every day, are used to measure the response in real time and to act to this response faster and easier everywhere. In addition, marketing activities carried out by smart mobile phone applications allow businesses to collect data for the target audience, communicate with customers one-to-one and inform customers (Yuan and Cheng, 2004:462).

Mobile marketing is the marketing of products and services through a mobile communication channel. It is a personal, time and space sensitive channel that can reach its target audience directly, interactively or through targeted communication (Gardlund, 2005; Leppäniemi et al., 2006; Eriş and Kımıloğlu, 2012). It is also a wireless (interactive) effective marketing tool used to promote goods, services and ideas with

mobile communication devices outside the workplace (Yamamoto, 2011), covering the interests of the businesses (Scharl et al. 2005; Karaca and Ateşoğlu, 2006; Aksu, 2007; Pousttchi) and Wiedemann, 2007; Akbiyik; Okutan and Altunisik, 2009). Mobile marketing is a communication and entertainment channel between brand and end-consumers and mobile devices and technologies are used for this purpose. It is the only tool for direct, interactive communication with target consumers. Mobile marketing is perceived as an alternative to classical marketing approaches and as a potential key element to the future integrated marketing communication strategies (Barutçu, 2008; Durmaz and Ertürk, 2015).

This study examines the tendency of mobile marketing applications on purchasing and personal factors that affect consumers' buying behaviours and their effects on the purchasing preferences. Correlation, standard deviation, mean value and factor analysis were applied to the findings and the data obtained from the study were evaluated.

Consumer Perception Related To Mobile Marketing

The dazzling developments in mobile communication technologies have changed the way of communicating with consumers and have created new platforms in terms of business-consumer interactions (Bauer et al., 2005; Shankar and Malthouse, 2007; Sultan and Rohm, 2005). Especially mobile smart phones, other personal and portable digital devices have become a necessity used in almost daily life for young and young-adult people (Gong and Li, 2008; Sultan et al., 2009). This has formed new opportunities (Sultan and Rohm, 2008) for businesses that have difficulty in accessing consumers in traditional ways. Therefore, it is inevitable to examine consumers' reactions to marketing communications with these new technologies.

As in the world, Turkey has also been experiencing a rising trend of interest in focusing on mobile marketing. Numerous studies on mobile marketing have been found (Aksu, 2007; Akbıyık, Okutan and Altunışık, 2009; Barutçu and Göl, 2009; Eriş and Kımıloğlu, 2012; Uygun; Uslu Divanoğlu and Özçifçi, 2012; Gider, 2014; Armağan and Güler, 2014; Durmaz and Ertürk, 2015; Kuş, 2016; Sürücü and Bayram, 2016; Gülden, 2018). In particular, studies are seen to be focused more on short messages (SMS) associated with mobile advertising market in Turkey (Ispir and Suher, 2009; Usta, 2009; Cakır, et al., 2010). It is also understood that most of these studies are focused on a few basic factors and various factors that may affect consumer behaviour towards mobile marketing applications are ignored. While the main theories focusing on

IJCEAS

the subject allows to examine the subject from a more technological point of view, it is noteworthy that the consumer-oriented perspective cannot be adequately reflected in the researches.

Mobile marketing is both advantageous and disadvantageous compared with other elements of marketing communication. In addition to its positive features such as the potential of having rich content visually and auditory, it can be made more targeted and interactive, it has also negative features such as being able to transmit very limited content to the consumer and being easily out of people's attention area (Park et al., 2008).

In the traditional advertising environment, correcting an error in advertising message brings high costs, while correction in mobile advertising is as easy as sending messages again. In mobile advertising, there is also the possibility of sending the message that the customer needs when required. Advertisements for restaurants, cafes and stores close to the consumer's location come to the consumer when they are in that area. These systems provide sales and advertising effectiveness to the business (Çakır, 2006).

Bauer et al. (2005) investigated the importance of consumer's innovation and information-seeking personality structure as well as certain characteristics of the message in determining the attitude towards mobile marketing. However, the findings showed that factors based on the characteristics of the message were more effective than personality traits.

Mostly, the age variables were taken into consideration in determining the attitudes towards mobile marketing; Park et al. (2008) especially 30 years of age, Vigar-Ellis et al. (2007) 18-24 age, Barwise and Strong (2002) found that the mobile marketing is more effectively used in the age range of 16-30. Young users are interested more in advertising messages that reach them via mobile and bluetooth technologies. On the other hand, they emphasize the importance of being able to control the frequency of receiving the message and ensuring that this medium provides information privacy and security (Leek and Christodoulides, 2009).

Referring to studies conducted in Turkey in the past; Barutçu (2007) emphasized that consumers do not approach mobile shopping positively but show a positive attitude towards other activities related to mobile marketing. Examples of such activities included in the study are mobile advertising, discount coupons, entertainment services, location-

based services, mobile internet and mobile banking. Cakır et al. (2010) determined that university students welcome SMS advertising and marketing messages. However, in another study of Usta (2009) for university students, the general attitude towards SMS advertisements was found to be negative, and a positive approach was determined only for permitted or award-winning advertisements. The recent study titled ″Mobile Marketing and the Use of Mobile Technology in Tourism'' conducted by Sürücü and Bayram (2016:2030) confirms that the developments in mobile communication technologies and increase in the number of users has made it an important marketing tool for businesses. Consumers in mobile marketing applications; information (Tsang, et al. 2004; Merisavo et al. 2007; Haghirian, et al. 2008; Suher and Ispir, 2009), entertaining (Tsang, et al. 2004; Haghrian and Madlberger, 2004; Merisavo et al. 2007; Xu, et al. 2008 Haghirian, et al., 2008; Suher and Ispir, 2009), reliability (Tsang, et al., 2004; Chowdhury, et al., 2006; Merisavo et al., 2007; Xu, et al., 2008; Zhang and Mao, 2008), permission to send mobile messages, (Barwise and Strong, 2002; Tsang, et al. 2004; Carol et al. 2007; Ransford 2007; Keshtgary and Khajehpour, 2011), having comprehensive content of mobile elements (Kaasinen, 2003; Scharl, et al. 2005; Carol et al. 2007), innovation (Rohm and Sultan, 2006), service (Nysveen, et al. 2005), control of the service provider, frequency of sending messages (Scharl, et al. 2005; Carol et al. 2007), personalization of the message (Kaasinen, 2003; Scharl, et al. 2005; Leppäniemi and Karjaluoto, 2005; Merisavo et al. 2007; Xu, et al., 2008; Zhang and Mao, 2008; Cudmore and Patton, 2008), user interaction, privacy (Kaasinen, 2003; Suher and İspir, 2009), advantage of mobile applications (Tanakinjal, et al. 2010), giving financial incentives (Hanley, et al. 2006; Ransford 2007; Merisavo et al. 2007; Porus and Ricker, 2007), entering the message of consumer interest (Enpocket, 2006), free of mobile advertising (Hanley, et al. 2006), usefulness of advertising (Zhang and Mao, 2008), free speech minutes, free games, melodies download and discount coupons (Porus and Ricker, 2007) are more welcome.

In addition, disturbance (Heinonen and Strandvik, 2003; Tsang, et al. 2004; Chowdhury, et al. 2006; Suher and Ispir, 2009), non-informative messages and applications (Chowdhury, et al. 2006), messages clutter (Ng et al., 2010), non-authorized content and submissions (Keshtgary and Khajehpour, 2011), negative content (Merisavo et al. 2007; Heinonen and Strandvik, 2003), mobile marketing

applications that offer entertainment and games (Nysveen, et al. 2005) are not welcomed.

This study aims to provide two main contributions to mobile marketing. 1) Determining the factors in mobile marketing applications that affect the purchasing behaviour of consumers; and 2) Determining the factors of mobile marketing applications by factor analysis.

Providing personalized advertising messages to consumers with information about the goods and services they offer and deliver this information to the customer when needed before the competitors, would enable businesses to be one step ahead in an increasingly competitive environment. Therefore, many businesses use it extensively although the concept of mobile advertising is quite new.

Methodology

Purpose, Research Questions and Importance

The main purpose of this research is to determine the mobile marketing applications' factors and the factors that affect the purchasing behaviours. In this sense, firstly, Bingöl and Diyarbakır provinces were included in the study and it was tried to determine whether there was any difference between these two provinces since these two provinces defers from each other in terms of sociocultural structures. Then, the general effect of mobile marketing applications on the purchasing behaviour of consumers is to be determined. The factors that are effective in mobile marketing as well as purchasing statements which are effective in mobile marketing will be examined with both average and standard deviation to reveal the differences and similarities between them.

In addition to the conceptual importance of the study, it is thought that the research carried out would contribute to consumer behaviour, marketing communication and mobile marketing. This study is taught to be a good reference for future studies in the academic area, well as the practitioners and companies may utilize these tools to in order to promote and sell their product and services to their target customers. It is hoped that important indicators of the preference of mobile marketing applications can be extracted from the research. The results will give the marketing managers important clues that they can benefit from mobile marketing applications.

Sampling and Data Collection Process

Within the scope of the research, data were collected from the individuals living in the Bingöl and Diyarbakır provinces chosen by easy sampling method. In consideration of the aim and the universe of study, a

total of 770 participants were accessed one-to-one in a 5-month period through the face to face survey. The formed sampling represents the scientifically determined figures for both provinces. In addition, individuals involved in mobile marketing activities were included in the research.

According to Hutcheson and Sofroniou (1999), the sampling size should be at least 150-300 and according to Guilford (1954), the sampling size should be at least 200. According to Comrey and Lee (1992), the sampling size of 100 was considered to be poor, 200 fair, 300 good and 500 very good. The sampling chosen for the research was satisfactory in all the cases mentioned above for a universe of about 1,200,000 in population.   Representation ability of the research is limited to the consumers who are willing to answer the survey form and also two different cities are the other limitations. These constraints affect the generalizability of the study.

Data Collection Tool and Data Analysis

Within the scope of the research, in the survey form, the expressions related to the factors affecting the mobile advertisements were directed to the multiple choice question type based on the 5-point Likert scale. In order to determine the reliability of the scale used in the research, reliability analysis, the demographic profile of the respondents to the survey form, the frequency distribution of the consumers' willingness to receive mobile advertising and their response to the mobile advertising message were examined. The scale expressions that form the basis of the survey were created by Tsang, Ho and Liang (2004: 65-78); Merisavo et al. (2005: 1-18), Ratihayu et al. (2008) Mansour, (2012), Gui, Qin and Qi, (2012), Al-Meshal and Almotairi, (2013), Expense (2014), Latto (2014), Nadeem; Rodríguez and Pérez-Vega (2015), Alam, Faiz and Aftab, (2015), Robayo; Montoya and Rojas-Berrio (2017), Kiat; Samadi and Hakimian (2017) and Zengin (2018) were used. In the first part of the survey, which was composed of three parts, the demographic characteristics of the respondents, the second part included the message receiving status, the distribution of the message and the content of the message by sectors, and the third part included the scale for twenty (20) basic variables including 5-point Likert expressions related to mobile marketing. While the questions in the first part have a multiple-choice categorical feature, the importance level and multiple-choice questions in the second part, Likert type scale in the third part stated as (1) I absolutely agree, (2) I agree, (3) I am undecided, (4) I disagree and (5) I absolutely disagree. At this scale; SMS applications (3 items),

IJCEAS

Advertising Practices (5 items), Customer Rewards (3 items), Permitted Message Applications (4 items) and Disturbing Message (5 items) in total 20 representing variables were included.

Data were analyzed with SPSS statistical package program. Demographic variables related to the respondents, the status of receiving the message, the content of the messages, and the expressions about the mobile ads were interpreted by frequency analysis. The importance of the distribution of incoming messages by sectors was used. Expressions related to mobile ads were averaged, standard deviation was taken and the level of participation was determined and the results of the analysis were evaluated. An analysis of variance was made for mobile ads and the same expressions were subjected to factor analysis.

The scale used in the measurement of 20 basic variables for mobile marketing applications (0.97) and for each variable (Perceived Benefit: 0.89; Contextual Information: 0.92; Social Impact: 0.85; Technical Personal Innovation: 0.78) Perceived Pleasure and Confidence: 0.84) Cronbach's Alpha coefficients were calculated and reliability was measured. According to Nunnally (1978:245), alpha values of 0.70 and above are sufficient for the reliability of the scale. The obtained Alpha values indicate that the scale is relatively reliable.

In order to reach the main purpose of the study, the research model developed in the study reveals the relationships between perceived benefit, contextual knowledge, social impact, technical personal innovation, perceived pleasure and trust variables and the reflection of consumers' mobile marketing applications on sales. In addition, the scale used in terms of advertising applications; SMS, Advertising Applications (AA), Customer Rewards (CR), Permitted Message Applications (PMA) and Disturbing Message (DM) are divided into factors.

Findings and Comment

Frequency Analysis and Importance

The data obtained from the survey are presented below;

Table 1: Research Profile

Age	Frequency	Percent		Gender	Frequency	Percent
18 years and under	22	2,9		Male	473	61,4
19-29 years old	370	48,1		Female	297	38,6

30-39 years old	175	22,7	Total	770	100,0
40-49 years old	143	18,6	**Profession**		
50-59 years old	46	6,0	Academician	5	0,6
60 years and above	14	1,8	Civil servants	247	32,1
Total	770	100,0	Self-employed	38	4,9
Educational Status			Merchant-Industrialist	20	2,6
Primary school	49	6,4	Farmer	13	1,7
High school	219	28,4	Worker	152	19,7
University	448	58,2	Student	176	22,9
Master's Degree	39	5,1	Other	119	15,5
Other	15	1,9	Total	770	100,0
Total	770	100,0	**Approximate Monthly Average Income**		
Distribution of Surveys by Cities			1600 TL and less	253	32,9
Diyarbakır	390	50,6	1601-2500 TL	156	20,3
Bingöl	380	49,4	2501-4000 TL	272	35,3
Total	770	100,0	4001-6000 TL	81	10,5
			6001 TL and above	8	1,0
			Total	770	100,0

The following statements can be used when the table is evaluated in general. Distribution of participants by age, 48.1% 19-29 years, 30-39

years 22.7%, 40-49 years 18.6%, 50-59 years 6%, 18 years and under 2.9% and 60 years and over 1.8%. 61.4% of the participants were male and 38.6% were female. 58.2% of the students have undergraduate and graduate education, 28.4% have high school, 6.4% have primary education and 5.1% have master's degree. 32.1% of the respondents were civil servants, 22.9% were students and 19.7% were workers. 35.3% of the participants have income of 2501-4000 TL, 32.9% of it is 1600 TL and lower, 20.3% of it has 1601-2500 TL and 10.5% of it has 4001-6000 TL income. It can be said that the rates are close to each other when comparing the provinces.

The majority of the participants are young and middle age. It can be said that most of them are male, most of them have high school and undergraduate education, most of them are more willing to answer and most of them have middle and low income level.

Table 2: The positive reflection of mobile marketing applications to sales by sending advertising or campaign information to mobile phone via SMS (Short Message)

Sending advertising or campaign information to mobile phone via SMS (Short Message)			Positive reflection of mobile marketing applications on sales		
	Frequency	Percent		Frequency	Percent
Yes	719	93,4	Yes	653	84,8
No	51	6,6	No	117	15,2
Total	770	100,0	Total	770	100,0

It is seen that the majority of the participants (93.4%) received messages to their mobile phones via SMS. The effect of the advertising and marketing applications on the purchase was also quite high since the rate of those affected by the applications is as high as 84.8%.

Table 3: Importance of messages to mobile phones by sectors

	I. Degree	II. Degree	III. Degree	IV. Degree	Total	Importance level
1 Food	132x10=1320	10x7=70	5x4=20	3x1=3	1413	2
2 Clothing	119x10=1190	34x7=238	6x4=24	4x1=4	1456	1

3 Cosmetics	17x10=170	40x7=280	9x4=36	5x1=5	491	5
4 Banking	90x10=900	52x7=364	19x4=76	4x1=4	1344	3
5 Automotive	6x10=60	23x7=161	5x4=20	3x1=3	244	6
6 Telecommunications	30x10=300	34x7=238	30x4=120	12x1=12	670	4
7 Health	2x10=20	7x7=49	13x4=52	8x1=8	129	7
8 Tourism	4x10=40	2x7=14	6x4=24	7x1=7	85	8
9 Other	16x10=160	5x7=35	8x4=32		227	
Total	**416x10=4160**	**207x7=1449**	**101x4=404**	**46x1=46**	**6059**	

The distribution of the participants according to the importance of messages received on their mobile phones can be summarized as follows. Clothing (1456 points), food (1413 points), banking (1344 points), telecommunications (670 points), cosmetics (491 points), automotive (244 points), health (129 points) and tourism (85 points).

Table 4: Distribution of messages received on mobile phone

	Frequency	Rate
Discount	274	35,6
New product promotion	150	19,5
Campaigns	346	44,9
Total	770	100,0

When the contents of the messages received from the participants' mobile phones are examined; campaigns were 44.9%, discount was 35.6% and new product introduction was 19.5%. Accordingly, it can be said that the majority of messages received from mobile phones are related to campaigns and discounts.

Table 5: Distribution of participation levels of expressions related to mobile marketing applications

		I absolutely agree	I agree	I am undecided	I disagree	I absolutely disagree	Total
I will be pleased with the advertising and campaign information that comes to my	Frequency	123	337	63	130	117	770
	Rate	16,0	43,8	8,2	16,9	15,2	100,0

380

mobile phone via SMS							
Being notified of advertising and campaigns via SMS enables me to be informed faster about the products and services I am interested in.	Frequency	157	361	75	117	60	770
	Rate	20,4	46,9	9,7	15,2	7,8	100,0
Sending SMS advertisements and campaigns in a visual way will contribute to my purchase.	Frequency	71	213	201	177	108	770
	Rate	9,2	27,7	26,1	23,0	14,0	100,0
If I earn gifts or money in exchange for reading advertisements, these messages may not bother me.	Frequency	135	252	126	164	93	770
	Rate	17,5	32,7	16,4	21,3	12,1	100,0
It helps to promote product or service if the customer gain some rewards by reading advertising	Frequency	159	274	134	135	68	770
	Rate	20,6	35,6	17,4	17,5	8,8	100,0
SMS messages do not interest me, no matter how they are prepared.	Frequency	92	111	187	302	78	770
	Rate	11,9	14,4	24,3	39,2	10,1	100,0
I know what legal rights I have if I feel uncomfortable with advertising and campaign messages.	Frequency	76	289	107	200	98	770
	Rate	9,9	37,5	13,9	26,0	12,7	100,0
Messages with advertising content received via SMS arrive at the appropriate times during the day.	Frequency	39	268	150	187	126	770
	Rate	5,1	34,8	19,5	24,3	16,4	100,0
Regardless of the content, my reaction to messages sent late and on holidays are always the same.	Frequency	131	257	132	163	87	770
	Rate	17,0	33,4	17,1	21,2	11,3	100,0
I see inconsistencies between shelf prices and message content in advertising campaigns in text messages.	Frequency	137	245	119	221	48	770
	Rate	17,8	31,8	15,5	28,7	6,2	100,0
In some stores, when requesting my phone number during payment, I am not	Frequency	129	321	131	153	36	770
	Rate	16,8	41,7	17,0	19,9	4,7	100,0

notified that it has been received to send a message with advertising content; it is shown as one of the billing transactions.							
When filling out forms and questionnaires for various companies, I usually do not pay attention to the statement that short messages will be sent.	Frequency	87	343	87	189	64	770
	Rate	11,3	44,5	11,3	24,5	8,3	100,0
I delete advertising and campaign text messages without reading them.	Frequency	117	141	169	276	67	770
	Rate	15,2	18,3	21,9	35,8	8,7	100,0
I will contact the relevant company for messages that I do not have permission and interest	Frequency	50	135	173	286	126	770
	Rate	6,5	17,5	22,5	37,1	16,4	100,0
I use legal remedies for messages that are against my will and consent.	Frequency	59	95	185	260	171	770
	Rate	7,6	12,3	24,0	33,8	22,2	100,0
In line with incoming SMS, I tend to purchase the advertised product or service.	Frequency	32	211	207	191	129	770
	Rate	4,2	27,4	26,9	24,8	16,8	100,0
I will forward the message to others if I consider it important.	Frequency	71	308	151	134	106	770
	Rate	9,2	40,0	19,6	17,4	13,8	100,0
I show reaction to the company that sends messages that I think disturb me, I never buy the product.	Frequency	136	280	179	114	61	770
	Rate	17,7	36,4	23,2	14,8	7,9	100,0
Excessive SMS sending may cause me to change the GSM Operator I use.	Frequency	78	177	191	214	110	770
	Rate	10,1	23,0	24,8	27,8	14,3	100,0
I think that receiving advertising and campaign SMS from companies gives me prestige in my social environment.	Frequency	27	128	73	229	313	770
	Rate	3,5	16,6	9,5	29,7	40,6	100,0

When the table is evaluated in general, the expressions that are effective in mobile marketing can be listed as follows:

Being notified of advertising and campaigns via SMS enables me to be informed faster about the products and services I am interested in (positive opinion total: Agree strongly + Agree 67.3%), I will be pleased with the advertisement and campaign information received via SMS (59.8%), While requesting my phone number during payment in some stores, I am not notified that it is received for sending advertising content, it is shown as one of the billing transactions (58.5%). While filling out forms and questionnaires for various companies, I do not pay attention to the statement that a short message will be sent. (55.8%), I react to the company that sends the messages that I think disturb me, I never buy the product (54.1%), my reaction to messages sent late and on holidays are always the same (50.4%) and if I earn gifts or money in exchange for reading the advertising ads, these messages may not bother me (50.2%).

When the table is evaluated in general terms, the phrases that are less effective in mobile marketing can be listed as follows:

In advertising campaigns in short messages, I see inconsistencies between shelf prices and message content (49.6%), I will forward the message to others if I consider it important. (49.2%) and I know what legal rights I have in case I am disturbed by advertising and campaign content messages (47,4%).

Furthermore, according to Table 5, the approaches that have the lowest impact on electronic marketing and which are negative are as follows:

I think that receiving SMS with advertising and campaign content from companies gives me prestige in my social environment (70.3%), I use legal remedies for messages that are against my will and consent (56%), I contact the related company for messages coming out of my permission and consent (%) 53,5), In my opinion, SMS messages do not interest me no matter how their content is prepared (49.3%), I delete the text messages with advertising and campaign content (44.5%), Excessive SMS sending may cause me to change the GSM Operator I use (%) 42.1), I tend to purchase the product or service advertised in line with incoming SMS (41.6%), messages with advertising content received via SMS arrive at the appropriate hours during the day (40.7%) and visual display of SMS advertisements and campaigns makes a positive contribution to my purchase (37%).

Standard Deviation, Medium and Level of Participation

The level of participation of all statements related to mobile marketing practices was either medium or low. Therefore, the standard deviation and the factors effective in mobile marketing applications according to the average are of medium importance.

Table 6: Distribution of average and participation levels of expressions related to mobile marketing applications

	Standard deviation	Average	Level of Participation
I will be pleased with the advertising and campaign information that comes to my mobile phone via SMS	1,332	2,72	Medium Level
Being notified of advertising and campaigns via SMS enables me to be informed faster about the products and services I am interested in.	1,194	2,43	Medium Level
Sending SMS advertisements and campaigns in a visual way contributes to my positive purchase.	1,198	3,05	Medium Level
If I earn gifts or money in exchange for reading advertisements, these messages may not bother me.	1,295	2,78	Medium Level
It helps to promote the product or service if the customer gain some rewards by reading advertising.	1,240	2,58	Medium Level
SMS messages do not interest me, no matter how they are prepared.	1,173	3,21	Medium Level
I know what legal rights I have if I feel uncomfortable with advertising and campaign messages.	1,240	2,94	Medium Level
Messages with advertising content received via SMS arrive at the appropriate times during the day.	1,198	3,12	Medium Level
Regardless of the content, my reaction to messages sent late and on holidays are always the same.	1,274	2,76	Medium Level

I see inconsistencies between shelf prices and message content in advertising campaigns in text messages.	1,224	2,74	Medium Level
In some stores, when requesting my phone number during payment, I am not notified that it has been received to send a message with advertising content; it is shown as one of the billing transactions.	1,124	2,54	Medium Level
When filling out forms and questionnaires for various companies, I usually do not pay attention to the statement that short messages will be sent.	1,187	2,54	Medium Level
I delete advertising and campaign text messages without reading them.	1,222	2,74	Medium Level
I will contact the relevant company for messages that I do not have permission and interest.	1,222	3,04	Medium Level
I use legal remedies for messages that are against my will and consent.	1,144	3,39	Medium Level
In line with incoming SMS, I tend to purchase the advertised product or service.	1,181	3,51	Medium Level
I will forward the message to others if I consider it important.	1,144	3,23	Medium Level
I show reaction to the company that sends messages that I think disturb me, I never buy the product.	1,215	2,86	Medium Level
Excessive SMS sending may cause me to change the GSM Operator I use.	1,212	3,13	Medium Level
I think that receiving advertising and campaign SMS from companies gives me prestige in my social environment.	1,212	3,87	Low Level

x̄ = 1.00-2.33 High Participation Level, 2.34-3.66 Medium Participation Level and 3.67-5.00 Low Participation Level

These statements can be listed as follows: "Being notified of advertisements and campaigns via SMS enables me to be informed faster about the products and services of my interest" (2,43), "When filling out forms and questionnaires for various companies, I usually do not pay attention to the statement that short messages will be sent, it is shown as

Baydaş et. al. / An Empirical Research on the Determination of Consumer Perceptions Related to Mobile Marketing Applications

www.ijceas.com

one of the billing transactions" (2,54), "It helps to promote the product or service if the customer gain some rewards by reading advertising" (2,58), "I am pleased with the advertisement and campaign information received via SMS on my mobile phone" (2,72), "I see inconsistencies between shelf prices and message content in advertising campaigns in short messages" (2,74), "I delete advertising and campaign text messages without reading them" (2,74), "Regardless of the content, my reaction to messages sent late and on holidays are always the same" (2,76), "If I earn gifts or money in exchange for reading advertisements, these messages may not bother me" (2,78), (2,86), "I know what legal rights I have in case I feel uncomfortable with advertising and campaign messages" (2,94), "I contact the related company for messages that come out of my permission and consent" (3,04), "Sending SMS advertisements and campaigns visually contributes to my purchase of the product" (3,05), "Messages with advertising content received via SMS arrive at appropriate times during the day" (3,12), "Excessive SMS sending may cause me to change the GSM Operator I use" (3,13). "I forward the message to the others if I consider it important" (3,23), "I use legal means for incoming messages without my permission and request" (3,39) "I tend to buy product or services advertised in accordance with incoming SMS" (3,51). "I think that receiving advertising and campaign SMS from companies gives me prestige in my social environment" (3.87) has a low level of participation.

Correlation Analysis

Based on studies of Merisavo et al. (2005: 1-18), the following variables were analyzed within the scope of research;

Table 7: Validity test

Variables	Cronbach's Alpha	Significance	Number of expressions
SMS	0.50	0,870	3
Advertising applications	0.71	0,000	5
Customer rewards	0.87	0,000	3
Permitted message	0.85	0,050	4
Disturbing message	0.60	0,000	5

Cronbach's Alpha and the significance of variables related to SMS applications, Advertising Applications (AA), Customer Rewards (CR), Permitted Messaging Applications (PMA) and Disturbing Messages (DM) and the number of variables used in the survey are given in the table above. Accordingly, except for SMS applications (0.50) Cronbach's Alpha and significance levels of other variables were found to be sufficient.

Table 8: Correlation analysis

		SMS	AA	CR	PMA	DM
SMS	Pearson Correlation Importance level Number	1 770	0.291 ** 0,000 770	0,382 ** 0,000 770	0.206 ** 0,010 770	0.077 * 0,034 770
AA	Pearson Correlation Importance level Number	0.291 ** 0,000 770	1 770	0.412 ** 0,000 770	0.212 * 0,045 770	0,046 * 0,034 770
CR	Pearson Correlation Importance level Number	0,382 ** 0,000 770	412 ** 0,000 770	1 770	0.170 ** 0,000 770	0.142 ** 0,000 770
PMA	Pearson Correlation Importance level Number	0.206 ** 0,010 770	0.212 * 0,045 770	0.170 ** 0,000 770	1 770	129 * 0,015 770
DM	Pearson Correlation Importance level Number	0.077 * 0,034 770	0,046 * 0,034 770	0.142 ** 0,000 770	129 * 0,015 770	1 770

Correlation analyses were applied to the determined factors and the following findings were obtained:

1) There is a very significant relationship between SMS and AA, CR and PMA while there was a significant relationship between SMS and DM.
2) There is a very significant relationship between AA and SMS, CR; a significant relationship was found between AA and PMA and DM.
3) It was found that there was a very significant relationship between CA and SMS, CA, AA and PMA.

4) There is a very significant relationship between PMA and SMS and CA; there was a significant relationship between PMA and AA and DM.

5) There is a very significant relationship between DM and CA; there was a significant relationship between DM and SMS, AA and PMA.

Factor Analysis Results

In this study, Bartlett's Sphericity Test and Kaiser-Meyer-Olkin (KMO) tests were used to evaluate whether the data set analyzed was suitable for factor analysis (Table 9). It could be said that the data set of the study was suitable for factor analysis since the KMO test comparing the magnitude of the correlation coefficients with the observed correlation coefficients was found to be approximately 0.83, By using Bartlett's Sphericity Test, factor analysis are applied on 20 variables variance "correlation matrix is a unique matrix", the calculated chi-square value was found to be 3005.948 and the significance level was found to be p=0.000 in order to test the H_0 hypothesis. Accordingly, the H_0 hypothesis was rejected and it was evaluated that the variables were suitable for factor analysis.

Table 9: KMO and Barttlet's Sphericity Test

Kaiser-Meyer-Olkin Test		0827
Bartlett's Sphericity Test	Approximate Chi-square	3005.948
	Degree of freedom	820
	Significance level	0000

In the analysis, the factors with eigenvalue statistics greater than or equal to 1 were determined to be significant (Table 9). Thus as a result of the analysis, 20 variables were found to be suitable to group in 6 factors. Because, six factors with eigenvalue statistics greater than 1 were determined.

Table 10: Eigenvalues of the determined factor s and variance Description Percentage

Factors	Eigenvalues	% Variance description	Cumulative%
1.Efficient advertising	4,454	32.271	32.271
2.Complaint behaviour	2,162	10.811	43.082
3. Indifference	1,596	7,980	51.062
4. Unresponsiveness	1,304	6,518	57.581
5. Normality	1,153	5,765	63.346
6. Inconsistency	1,025	5,126	68.471

The first factor was %32.271, the second factor was %10,811, the third factor was % 7,980, the fourth factor was %6,518, the fifth factor was %5,765 and the sixth factor was %5,126 of the total variance. All factors (6 factors) are to be seen explaining %68.471 of the total variance.

Table 11: Factor analysis of expressions about the factors effective in mobile marketing

	Factor Loadings
Factor 1: Efficient advertising	
Being notified of advertising and campaigns via SMS enables me to be informed faster about the products and services I am interested in.	,791
I will be pleased with the advertising and campaign information that comes to my mobile phone via SMS	,786
Sending SMS advertisements and campaigns in a visual way contributes to my positive purchase.	,637
In line with incoming SMS, I tend to purchase the advertised product or service.	,632
I will forward the message to others that I consider important.	,616

I delete advertising and campaign text messages without reading them.	-,604
If I earn gifts or money in exchange for reading advertisements, these messages may not bother me.	,574
It helps the customer to promote the related product or service if the customer gains some rewards by reading the advertisement.	,549
Messages with advertising content received via SMS arrive at the appropriate times during the day.	,505
Factor 2: Complaint behaviour	
I will contact the relevant company for messages that I do not have permission and consent.	,743
I use legal remedies for messages that are against my will and consent.	,739
I know what legal rights I have if I feel uncomfortable with advertising and campaign messages.	,502
Factor 3: Indifference	
When filling out forms and questionnaires for various companies, I usually do not pay attention to the statement that short messages will be sent.	,643
SMS messages do not interest me, no matter how they are prepared.	-,557
Factor 4: Unresponsiveness	
I react to the company that sends the messages that I think disturb me, I never buy the product.	,649
Regardless of the content, my reaction to messages sent late and on holidays are always the same.	-,580
Factor 5: Normality	
In some stores, when requesting my phone number during payment, I am not notified that it has been received to send a message with advertising content; it is shown as one of the billing transactions.	,504
I think that receiving advertising and campaign SMS from companies gives me prestige in my social environment.	-,481
Factor 6: Inconsistency	
I see inconsistencies between shelf prices and message content in advertising campaigns in text messages.	,482
Excessive SMS sending may cause me to change the GSM Operator I use.	-,481

Having determined the numbers of factors for a variable under which factor to be shown is the absolute value where the larger weight to this one variable is closely related factors in consideration of the original variables, factor loadings on these six factors are provided on Table 11.

Taking into account of the content of variables that have a large weight are placed below the first factor, the first factor was named "Efficient Advertising". This factor, which has the highest variance among other factors, consists of nine variables. "Notified by advertising and campaigns via SMS enables me to be informed faster about the products and services of my interest" the variable with the highest value in terms of factor loadings (0.791) among the mentioned variables. "Messages with advertising content received via SMS arrive at the appropriate times during the day" had the lowest value of (0.505).

The second factor was named as "Complaint Behavior" that is considered to have the content of the variables with a large weight under the second factor. This factor is composed of three variables. "I will contact the relevant company for messages that I do not have permission and consent" has the largest value of (0.743) among the other factor loadings. "I know what legal rights I have if I feel uncomfortable with advertising and campaign messages" has the lowest value of (0.502).

Taking into account the content of variables having a large weight are placed under the third factor, the third factor was named "Indifference". This factor consists of two variables. "When filling out forms and questionnaires for various companies, I usually do not pay attention to the statement that short messages will be sent" variable has the greatest value of (0.643), in terms of factor loadings, while the smallest value (0557) is for the variable of "SMS messages do not interest me, no matter how they are prepared".

In consideration of the contents of variables, the fourth factor was named as "unresponsiveness" There are two variables under the factor. The variable with the highest value of (0.649) in factor loadings is "I react to the company that sends the messages that I think disturb me, I never buy the product".

In consideration of the contents of variables having a large weight under the fifth factor is named as "Normality". This factor, which has the highest variance among other factors, consists of three variables. Among these variables, which has the highest value in factor loadings (0.504) is the variable "While asking for my phone number during payment in some stores, it is not notified to me that it was received for sending

messages with advertising content, it is shown as one of the billing transactions".

The sixth factor was named as "Inconsistency" by considering the contents of the variables. Under this factor "I see inconsistencies between shelf prices and message content in advertising campaigns in text messages" and "Extreme SMS sending, may cause me to change the GSM operators I use" are two variables. The variable that has the largest value of (,482) in terms of factor loadings among these variables is "I see inconsistencies between shelf prices and message content in advertising in text messages".

Table 12: KMO and Barttlet's Sphericity Test for Bingöl and Diyarbakır Provinces

Kaiser-Meyer_Olkin Test (Bingöl)		,738		**Kaiser-Meyer_Olkin Test** (Diyarbakır)		, 794
Bartlett's Sphericity Test	Approximate Chi-square	1949.575		Bartlett's Sphericity Test	Approximate Chi-square	2068.834
	Degree of freedom	190			Degree of freedom	190
	Significance level	000			Significance level	000

In this study, Bartlett's Sphericity and Kaiser-Meyer-Olkin (KMO) tests were used to determine whether the data set was suitable for factor analysis according to the provinces under analysis (Table 10).

Since the KMO test, which compares the observed correlation coefficients with the partial correlation coefficients, is found to be approximately, 0.74 for Bingöl and 0.79 for Diyarbakır, it can be said that the data set of the study is suitable for factor analysis. Using the Bartlett's Sphericity Test, the chi-square values calculated to test the H_0 hypothesis of the variance of 20 variables is "correlation matrix is unit matrix" in which factor analysis applied were found to be 1949,575 for Bingöl and 2068.834 for Diyarbakır, and the significance level was p = 0.000. Accordingly, the H_0 hypothesis was rejected and the variables were considered to be suitable for factor analysis for both provinces.

Table 13: The Factors Determining Bingöl and Diyarbakir explaining eigenvalues and percent of variance

Factors	Eigenvalues	% Variance description	Cumulative %	Factors	Eigenvalues	% Variance description	Cumulative %
		Bingöl				**Diyarbakır**	
1 Satisfaction	4,509	20,090	20,090	**1 Satisfaction**	4,547	22.736	22.736
2 Indifference	2,075	9.246	29.336	**2 Rewarding**	2,334	11.672	34.407
3 Discomfort	1,984	8.842	38.179	**3 Complaints**	1,611	8.056	42.463
4 Rewarding	1,784	7.951	46.130	**4 Restlessness**	1,161	5.807	48.270
5 Restlessness	1,557	6,940	53.070	**5 Images**	1,156	5,781	54.051
6 Complaints	1,255	5.590	58.660	**6 Deception**	1,009	5.046	59.097
7 Images	1,180	5,259	63.918				

In the analysis, the factors with eigenvalue statistics greater than 1 were found to be significant (Table 9). As a result of the analysis, it was found suitable to group 20 variables into 7 factors for Bingöl and 6 factors for Diyarbakır. Because seven (7) factors were determined for Bingöl, and six (6) factors were determined for Diyarbakır. For the province of Bingöl; the first factor explains 20.090% of total variance, the second factor is 9.246%, the third factor is 8.842%, the fourth factor is 7.951%, the fifth factor is 6.940%, the sixth factor is 5.590% and the seventh factor is 5.259% of the total variance. All factors (7 factors) explain 63.918% of the total variance.

For the province of Diyarbakir; the first factor explains 22.736% of the total variance, the second factor 11.672%, the third factor 8.056%, the fourth factor 5.807%, the fifth factor 5.781% and the sixth factor explains 5.046% of the variance. All factors (6 factors) explain 59,097% of the total variance.

Table 14: Factor analysis of expressions about the factors effective in mobile marketing by provinces

Factor analysis results of Bingöl province		Factor analysis results of Diyarbakır province	
1. Satisfaction		**1. Satisfaction**	
I will be pleased with the advertising and campaign information that comes to my mobile phone via SMS	,872	I will be pleased with the advertising and campaign information that comes to my mobile phone via SMS	,746
Being notified of advertising and campaigns via SMS enables me to be informed faster about the products and services I am interested in.	,767	Being notified of advertising and campaigns via SMS enables me to be informed faster about the products and services I am interested in.	,744

Messages with advertising content received via SMS arrive at the appropriate times during the day.	,654	I delete advertising and campaign text messages without reading them.	-,723
Sending SMS advertisements and campaigns in a visual way contributes to my positive purchase.	,560	SMS messages do not interest me, no matter how they are prepared.	-,612
		Sending SMS advertisements and campaigns in a visual way contributes to my positive purchase.	,581
		I will forward the message to others that I consider important.	,573
		In line with incoming SMS, I tend to purchase the advertised product or service.	,492
2. Rewarding		**2. Rewarding**	
It helps the customer to promote the related product or service if someone gains rewards by reading advertisement	,981	It helps the customer to promote the related product or service if someone gains rewards by reading advertisement	,818
If I earn gifts or money in exchange for reading advertisements, these messages may not bother me.	,940	If I earn gifts or money in exchange for reading advertisements, these messages may not bother me.	,789
3. Complaint		**3. Complaint**	
I know what legal rights I have if I feel uncomfortable with advertising and campaign messages.	,903	I react to the company that sends the messages that I think disturb me, I never buy the product.	,752
I delete advertising and campaign text messages without reading them.	,508	Excessive SMS sending may cause me to change the GSM Operator I use.	,735
		I will contact the relevant company for messages that I do not have permission and consent.	,511
4. Image		**4. Image**	
I think that receiving advertising and campaign SMS from companies gives me prestige in my social environment.	,966	I think that receiving advertising and campaign SMS from companies gives me prestige in my social environment.	,765
Excessive SMS sending may cause me to change the GSM Operator I use.	,513	Messages with advertising content received via SMS arrive at the appropriate times during the day.	,433
5. Unrest		**5. Negative Response**	
Regardless of the content, my reaction to messages sent late and on holidays are always the same.	,986	I know what legal rights I have if I feel uncomfortable with advertising and campaign messages.	,812
In some stores, when requesting my phone number during payment, I am	,531	I use legal remedies for messages that are against my will and consent.	,561

not notified that it has been received to send a message with advertising content; it is shown as one of the billing transactions.			
		Regardless of the content, my reaction to messages sent late and on holidays are always the same.	,448
6. Indifference		**6. Deception**	
I will contact the relevant company for messages that I do not have permission and consent.	,674	In advertising campaigns in text messages, I see inconsistencies between shelf prices and message content.	,695
In line with incoming SMS, I tend to purchase the advertised product or service.	,631	When filling out forms and questionnaires for various companies, I usually do not pay attention to the statement that short messages will be sent.	,632
I will forward the message to others that I consider important.	,629	In some stores, when requesting my phone number during payment, I am not notified that it has been received to send a message with advertising content; it is shown as one of the billing transactions.	,409
I use legal remedies for messages that are against my will and consent.	,598		
7. Discomfort			
When filling out forms and questionnaires for various companies, I usually do not pay attention to the statement that short messages will be sent.	,787		
I react to the company that sends the messages that I think disturb me, I never buy the product.	,684		
In advertising campaigns in text messages, I see inconsistencies between shelf prices and message content.	,560		
SMS messages do not interest me, no matter how they are prepared.	,532		

When factor analyses are evaluated by provinces, it is seen that four factors are the same in both provinces. The factors in question; satisfaction, reward, complaint behavior and image. It is seen that three different factors occur in Bingöl (Unrest, Indifference and Discomfort) and two different factors occur in Diyarbakır (Negative reaction and

Deception). The deception factor, especially in Diyarbakır, is very important.

Conclusions and Recommendations

The research was conducted as face to face survey in the providences of Bingöl and Diyarbakır on 770 participants chosen by easy sampling method in order to determine the consumer perceptions related to mobile marketing applications. The findings were evaluated and examined from different perspectives.

The results of the research can be summarized as follows;

1) Results based on Frequency; it was found that the ages of the respondents who participated in the research consisted mostly of middle age group, most of them were male, their education level was more at graduate and undergraduate level, they were distributed in terms of profession and had more middle income level.

It is seen that the majority of the participants receive SMS messages to their mobile phones. The effect of the advertising and marketing applications on the purchase was also determined to be quite high.

It can be said that the majority of messages received from mobile phones are related to campaigns and discounts.

I am notified from advertising and campaigns via SMS, make me aware of the products and services faster that I am interested in. I am pleased with the advertisement and campaign information received by SMS in my mobile phone, while requesting my phone number during payment in some stores, I am not notified that it is received for sending messages with advertising content, it is shown as one of the billing transactions are seen as important.

I think that receiving SMS with advertising and campaign content from companies gives me prestige in my social environment, I apply legal ways for messages coming out of my permission and consent, and I react to the company for messages coming out of my permission and request are ineffective statements.

2) Results based on Degree of Importance; distribution of messages to mobile phones according to their importance; clothing, food, banking, telecommunications, cosmetics, automotive, health and tourism.

3) Results based on Standard Deviation, Average and Participation Level;

"Being informed about advertising and campaigns via SMS enables me to be aware of the products and services faster I am interested", "While my phone number is requested during payment at some stores, it is not notified to me that it is received for advertising content, it is shown as one of the billing transactions", "When filling out forms and questionnaires for various companies, I do not usually pay attention to the statement that they will send short messages" statements have gained importance and have been found to have a medium level of participation.

I think that "receiving SMS with advertising and campaign content from companies gives me prestige in my social environment" has the lowest level of participation.

4) Results based on Factor Analysis; based on studies of Merisavo et al. Perceived Benefit, Contextual Information, Social Impact, Technical Personal Innovation and Perceived Pleasure and Trust are determined in terms of determined expressions, SMS applications in terms of mobile advertising applications, Advertising Applications (AA), Customer Rewards (CR), Permitted Message Applications (PMA) and Disturbing Messages (DM) statements are identified.

Correlation analysis was applied to the determined factors and the following findings were obtained:

a) There is a very significant relationship between SMS and AA, CR and PMA; there was a significant relationship between SMS and DM.

b) There is a very significant relationship between AA and SMS, CR; a significant relationship was found between AA and PMA, DM.

c) It was found that there was a very significant relationship between CR and SMS, CR, AA and PMA.

d) There is a very significant relationship between PMA and SMS and CR; there was a significant relationship between PMA and AA and DM.

e) There is a very significant relationship between DM and CR; there was a significant relationship between DM and SMS, AA.

In addition, as a result of factor analysis; "Efficient Advertising", "Complaint Behaviour", "Indifference", "Unresponsiveness", "Normality" and "Inconsistency" were determined.

In the factor analysis conducted by provinces; In Bingöl where satisfaction, reward and complaint behaviour factors are the same in both

provinces; Unrest, Indifference and Discomfort were found to be three different factors, while Diyarbakır had two different factors: Negative Response and Deception.

The findings of this study may enable the practitioners and companies to promote and sell new product and services to their consumers. Especially advertising by using mobile marketing tools is cost effective and very efficient in reaching the target customers.

References

Akbıyık, A.; Okutan, S. and Altunışık, R.; (2009) A Study Consumers' perceptions of and Attitudes towards Permission Marketing Practices on Mobile Marketing Platforms, Journal of Consumer and Consumption Research, Vol, 1 No, 2, pp. 1-28.

Aksu, A. (2007) The Analysis of Mobile Marketing and Its Market Efficiency, Kadir Has University, Graduate School of Social Sciences, Department of Business Administration, Istanbul.

Alam, M.R.; Faiz, M.A. and Aftab, M.Z. (2015) Mobile Marketing: A Study of Buying Intention, British Journal of Economics, Management&Trade, 7(3): pp. 218-226.

Al-Meshal, S.A. and Almotairi, M.A. (2013) Consumer Acceptance of Mobile Marketing: An Empirical Study on the Saudi Female, International Journal of Marketing Studies; Vol. 5, No. 5; 2013 pp. 94-100.

Armağan, E. and Gider, A.; (2014) Mobile Marketing and The Perception of University Students on The Mobile Marketing: A Research on The University Students Who Live in Nazilli, Online Academic Journal of Information Technology, Vol: 5, No: 17, pp. 27-44.

Barutçu, S. (2007), "Attitudes Towards Mobile Marketing Tools: A Study of Turkish Consumers", Journal of Targeting, Measurement and Analysis for Marketing, Vol. 16, No. 1, pp. 26-38.

Barutçu, S. (2008) Mobile Marketing, Selected Marketing Approaches, Editors: İnci Varinli, Kahraman Çatı, Detay Publishing, Ankara.

Barutçu, S. and Göl Öztürk, M. (2009) Mobile Advertising and Attitudes towards Mobile Advertisements Tools, KMU Journal of Social and Economic Research, Year: 11, No: 17, pp. 24-41.

Barwise, P. and, Strong, C. (2002) Permission-Based Mobile Advertising, Journal of Interactive Marketing, Vol. 16, Winter, pp. 14-24.

Bauer, H.H., Reichardt, T.S. Barnes, J. and Neumann, M.M. (2005) "Driving Consumer Acceptance of Mobile Marketing: A Theoretical Framework and Emprical Study", Journal of Electronic Commerce Research. 6: 3, pp. 181-192.

Çakır, F., Çakır, M. and Çiftçi, T.E. (2010) The Behavıor and Attıtude of Consumers Intended to SMS Advertısıng Messages, Journal of Organization and Management Sciences, Vol 2, No 1, pp. 27-35.

Çakır, V. (2006) The Effect of Advertisement Likes on Brand Attitudes of Consumers, Selçuk University, The Journal Of Institute of Social Sciences, No: 15, pp. 663-687.

Chowdhury, H.K., Parvin, N., Weitenberner, C. and Becker, M. (2006) Consumer Attitude Toward Mobile Advertising in an Emerging Market: An Empirical Study. International Journal of Mobile Marketing, 1 (2): pp. 33-42.

Comrey, A.L. and Lee, H.B. (1992). A first Course in Factor Analysis. Hillsdale, NJ: Erlbaum.

Cudmore, B.A. and Patton, J.R. (2007), "The Intimate Marketer: Personalized Direct Marketing Strategies in a Wireless Environment", Journal of Internet Commerce, Vol. 6, No. 4, pp. 73-96.

Dal, N.E., Güldüren, B., Söyleyici, G.T. and Kılıç, T.Ç.; (2017) Mobile Marketing and University Students' Mobile Marketing Perception: A Research with University Students, Eurasian Journal of Social and Economic Research (EJSER), Vol 4, No 12, pp. 399-419.

Durmaz, Y. and Ertürk, S.; (2015) Effect of Brand of Mobile Marketing Practices, International Journal of Disciplines Economics&Administrative Sciences Studies Vol: 1 Issue: 1 pp: 68-82.

Enpocket, (2006) Research Shows that Targeting and Relevance Are Key to Making Mobile Advertising Work. http://www.enpocket.com/news/press releases/researchshows-that-targeting-and-relevance-are-key-tomakingmobileadvertising-work, 08.01.2019.

Eriş, B.A. and Kımıloğlu, H.; (2012) Consumers' Approach Toward Varıous Mobile Marketing Activities, Journal of Marketing and Marketing Research, Issue: 10, pp. 41-58.

Gardlund, M. (2005) 'A Conceptual Model of Mobile Marketing for a Multinational Consumer Goods Company', Master of Science Thesis, Stockholm.

Gider, A. (2014) Mobile Marketing and the Perception of University Students on the Mobile Marketing: A Research on the University Students Who Live in Nazilli, Adnan Menderes University, Institute of Social Sciences, Department of Business Unpublished Master Thesis, Aydın.

Gong, W. and Li, Z.G. (2008) "Mobile Youth in China: A Cultural Perspective and Marketing Implications", International Journal of Electronic Business. 6:3, pp. 261-281.

Gui, A.C.S.; Qin, C.P. and Qi, P.V. (2012) The Determinant Factors Influencing Young Consumers' Acceptance of Mobile Marketing, A Research Project Submitted in Partial Fulfillment of the Requirement for The Degree of Bachelor of Marketing (Hons) Universiti Tunku Abdul Rahman Faculty of Business and Finance Department of Marketing, August 2012.

Guilford, J.P. (1954). Psychometric Methods (2nd ed.). New York: McGraw-Hill.

Gülden, Ö. (2018) The Effects of Mobile Marketing on Customer Buying Behavior, Izmir Katip Çelebi Üniversity Graduate School of Social Sciences Department of Business Thesis. Izmir.

Haghirian, P., Madlberger, M. and Inoue, A. (2008). Mobile Advertising in Different Stages of Development: A Cross-country Comparison of Consumer Attitudes. Proceedings of the 41st Hawaii International Conference on System Sciences, pp. 7-10.

http://İeeexplore.İeee.Org/Xpl/FreeabsAll.Jsp?Arnumber=4438752, E.T. 08.01.2019.

Hanley, M., Becker, M. and Martinsen, J. (2006) Factors Influencing Mobile Advertising Acceptance: Will Incentives Motivate College Students to Accept Mobile Advertisements?, International Journal of Mobile Marketing, 1 (1): pp. 50-58.

Heinonen, K. and Strandvik, T. (2007) Consumers Responsiveness to Mobile Marketing. International Journal of Mobile Communications, Vol. 5, No. 6, pp. 603-617.

Hutcheson, G. and Sofroniou, N. (1999). The Multivariate Social Scientist: Introductory Statistics Using Generalized Linear Models. Thousand Oaks, CA: Sage Publications.

İspir, N.P. and Suher, H.K. (2009) "Consumer Attitudes towards SMS Advertising", Journal of Selçuk Communication, 5:4, pp. 5-17.

Kaasinen, E. (2003). User Needs for Location- Aware Mobile Services. Personal&Ubiquitous Computing, 7 (1): 70-79.

Karaca, Y. and Ateşoğlu, İ, (2006). Mobile Advertising and Applications: Institutional Framework, Journal of Pİ, Issue, 18, pp. 37.

Keshtgary, M. and Khajehpour, S. (2011). Exploring and Analysis of Factors Affecting Mobile Advertising Adoption- an Empirical Investigation Among Iranian Users, Canadian Journal on Computing in Mathematics, Natural Sciences, Engineering and Medicine, 2, pp. 144-151.

Kiat, Y.C.; Samadi, B. and Hakimian, H. (2017) Consumer Behaviour towards Acceptance of Mobile Marketing, International Journal of Business and Social Science, Vol. 8, No: 4, pp. 92-105.

Kuş, Ö.A. (2016) Mobile Marketıng as a Marketing Tool: Insıghts from Istanbul Based Y Generation Okan University Institute of Social Sciences Department of Business Administration Sales and Marketing Program, Master Thesis, Istanbul.

Latto, J. (2014) Mobile Marketing and Its Implementations, University of Jyväskylä Department of Computer Science and Information Systems, Thesis.

Leek, S. and G. Christodoulides, (2009), "Next-Generation Mobile Marketing: How Young Consumers React to Bluetooth-Enabled Advertising", Journal of Advertising Research, Vol. 49, No. 1, pp. 44-53.

Leppäniemi, M. and Karjaluoto, H. (2008). Mobile Marketing: From Marketing Strategy to Mobile Marketing Campaign Implementation. International Journal of Mobile Marketing, 3(1).

Leppäniemi, M., Sinisalo, J. and Karjaluoto, H. (2006), "A Review of Mobile Marketing Research", International Journal of Mobile Marketing, Vol. 1, No. 1, pp. 30-40.

Mansour, I.H.F. (2012) Factors Affecting Consumers' Intentions to Accept Mobile Advertising in Sudan, https://www.researchgate.net/publication/260518448, E.T. 11.01.2019.

Merisavo, M., Kajalo, S., Karjaluoto, H., Virtanen, V., Salmenkivi, S., Raulas, M. and Leppaniemi, M. (2007), An Empirical Study of the Drivers of Consumer Acceptance of Mobile Advertising, Interactive Advertising, pp. 1-18.

Nadeem, S.; Rodríguez, L.C. and Pérez-Vega, R. (2015) A Scale of Hindrance in Mobile in-App Advertising, International Conference on Organization and Management, pp. 1-26.

Ng, P.Y., Voges, K. and Goi, C.L. (2010). The Importance of Mobile Phone Applications to Young Consumers: An exploratory study in Malaysia. pp. 1-8.

Nysveen, H., P.E. and Thorbjørnsen, H. (2005) "Intentions to Use Mobile Services: Antecedents and Cross Service Comparisons", Journal of the Academy of Marketing Science. 33:3, pp. 330-346.

Park, T., Shenoy, R. and Salvendy, G. (2008), "Effective Advertising on Mobile Phones: A Literature Review and Presentation of Results from 53 Case Studies", Behavior&Information Technology, Vol. 27, No. 5, pp. 355-373.

Porus, J. and Ricker, J. (2007) Consumer Accettanced, Mobile Advertising and Marketing Conference, New York.

Pousttchi, K. and Wiedemann, D.G. (2006). A Contribution to Theory Building for Mobile Marketing: Categorizing Mobile Marketing Campaigns through Case Study Research. Proceedings of the International Conference on Mobile Business.

Ransford, M. (2007). CCIM Newsletter, http://www.bsu.edu/cim/article/0,1384,216583-14647-51252,00.html, 02.01.2019.

Ratihayu, A.P.; Agustina, L.; Baihaqi, M.F. and Raharso, A. (2008) An Empirical Study of the Drivers of Consumer Acceptance of Mobile Advertising (Short Message Services) in Indonesia, Journal of Business Strategy and Execution Vol. 1, No. 1, pp. 1-21.

Robayo, O.; Montoya, L.A. and Rojas-Berrio, S.P. (2017). Mobile Marketing: Conceptualization and Research Review, Vol. 38 (No: 61), pp. 26-40.

Safko, L. (2010). The Social Media Bible Tactics, Tools and Strategies for Business Success. (Second Edition), New Jersey: John Wiley&Sons Inc.

Scharl, A., Dickinger, A. and Murphy, J. (2005). Diffusion and Success Factors of Mobile Marketing. Electronic Commerce Research and Applications, 4(2), pp. 159-173.

Shankar, V. and Malthouse, E.C. (2007) "Moving Interactive Marketing forward", Journal of Interactive Marketing. 20:1, pp. 2-4.

Suher H.K. and İspir, N.B. (2009) SMS Advertising in Turkey: Factors Affecting Consumer Attitudes, Selçuk University, The Journal of Institute of Social Sciences, Vol. 21, pp. 447-459.

Sultan, F. and Rohm, A.J. (2005) "The Coming Era of 'Brand in the Hand' Marketing", MIT Sloan Management Review. 47:1, pp. 83-90.

Sultan, F., Rohm, A.J. and Gao, T. (2009). Factors Influencing Consumer Acceptance of Mobile Marketing: A Two-Country Study of Youth Markets. Journal of Interactive Marketing, pp. 308-320.

Sürücü, Ö. and Bayram, A.T. (2016) Mobile Marketing and the Usage of Mobile Technology in Tourism, The Journal of International Social Research, Vol: 9 Issue: 42, pp. 2024-2032.

Tanakinjal, G.H., Deans, K.R. and Gray, B. (2010) "Third Screen Communication and the Adaption of Mobile Marketing: A Malaysia Perspective", International Journal of Marketing Studies. 2:1, pp. 36-47.

Tsang, M.M., Ho, S.C. and Liang, T.B. (2004). Consumer Attitudes Toward Mobile Advertising: An Empirical Study. International Journal of Electronic Commerce, Vol. 8, No. 3, pp. 65-78.

Usta, R. (2009) "Undergraduates' Attıtudes Toward Mobile Advertising", Doğuş University Journal. 10:2, pp. 294-309.

Uygun, M.; Uslu Divanoğlu, S. and Özçifçi, V. (2012) "Factors Affecting Consumer Acceptance Towards Mobile Marketing Practices", Journal of Organization and Management Sciences, Vol 4, Issue 2, pp. 211-223.

Vigar-Ellis, D., Ellis, L. and Barraclough, C. (2007), "Perceptions Towards SMS Marketing: An Exploratory Investigation", Management Dynamics, Vol. 16, No. 2, pp. 16-24.

Xu, D.J., (2006/2007), "The Influence of Personalization in Affecting Consumer Attitudes Toward Mobile Advertising in China", The Journal of Computer Information Systems, Vol. 47, No. 2, pp. 9-19.

Xu, D.J., Liao, S.S. and Li, Q. (2008) Combining Empirical Experimentation and Modelling Techniques: A Design Research Approach for Personalized Mobile Advertising Applications. Decision Support Systems, 44 (3): pp. 710-724.

Yamamoto, G.T. (2011) Mobile Life and Applications, Gonca Telli Yamamato (Ed.), Istanbul.

Yuan, S.T. and Cheng, C. (2004). "Ontology-Based Personalized Couple Clustering for Heterogeneous Product Recommendation in Mobile Marketing", Expert Systems with Applications, 26(4), pp. 461–476.

Zengin, A.M. (2018) The Effects of SMS Advertising on Brand Attitude and Purchase Intention: An Experimental Study on University Students, Gumushane University e-Journal of Faculty of Communication, Vol: 6, pp. 51-67.

Zhang, J. and Mao, E. (2008) Understanding the Acceptance of Mobile SMS Advertising among Young Chinese Consumers. Psychology & Marketing, 25 (8): pp. 787-805.