Original Article

Factors affecting consumer attitudes towards mobile marketing

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Rudaina Othman Yousif

Is an Associate Professor and has obtained a BA degree in educational statistics from Almustansiriyah University, Iraq in 1973. She then got a scholarship to France where she obtained a DA degree in marketing from Clermont-Ferrand University, France in 1979. Later, she obtained a doctorate (doctorate 3^{eme} cycle) in marketing in 1982 and a doctorate in business administration (doctorate d'etat in science gestion) in 1986, both from Clermont-Ferrand University, France. She is currently a Faculty Member at the marketing department in the faculty of economics and administrative sciences at al-Zarqa University, Jordan. During her career in the education field she has authored over 20 published books in addition to research in different fields in both English and Arabic. She has also participated in many local and international scientific conferences.

ABSTRACT The widespread use of mobile phones and the rapid increase in the number of subscribers to this service have prompted marketers to adopt this method in the execution of marketing activities and to adopt the concept of mobile marketing, which has provided marketers with a new innovative means as opposed to the conventional means of communication in buying and selling. This study examines the factors affecting the attitudes of consumers (sample respondents) toward mobile marketing that were identified in a number of factors, namely, the attributes of mobile marketing, the nature of information, excitement and attractiveness and credibility. These factors were adopted in the model of this study and divided into five dimensions. Two groups of hypotheses were developed. The first group contains five hypotheses the nature of information, excitement and attractiveness and credibility, on attitudes of consumers toward mobile marketing. The second group includes two hypotheses that pertain to testing the relationship between the components of the study model through the use of Spearman's correlation coefficient. The data collected in this study were based on designing a questionnaire consisting of 32 questions that was distributed to mobile phone users. A total of 352 questionnaires valid for statistical analysis were obtained. The obtained data were processed via statistical methods appropriate for testing the hypotheses, and the results of the statistical analysis have indicated the validity of the hypothesis and that the attributes of mobile marketing, the nature of information, excitement and attractiveness and credibility do have an effect on consumer attitudes (sample respondents) toward mobile marketing.

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Correspondence:

Rudaina Othman Yousif
Faculty of Economic and
Administrative Science,
Al-Zarqaa University/Jordan,
PO Box 141522, Amman
11814, Jordan
E-mail: dr.rudaina_othman@
yahoo.com

INTRODUCTION

Owing to organizations and individuals in general seeking to conduct business in as little

time and with as little effort as possible, they have adopted modern means of communication in conducting many of their

businesses. Workers of the marketing field are constantly seeking to utilize modern technologies in communication, buying, selling, promoting and other marketing activities in order to reach their specific marketing goals. Among these technologies are mobile phones, with their use in marketing and executing marketing activities being branded as mobile marketing. In recent years, mobile marketing has provided new opportunities for companies and workers in the field of marketing to communicate with the target audience in an effective manner, as it represents an interactive means for promotions and sales that establishes and promotes a positive attitude toward the company, its products and its services, in addition to sustaining a long-term relationship with the target market.

Devices and systems based on mobile technologies have become commonplace in our everyday lives,¹ increasing the accessibility, frequency and speed of communication. As a result, mobile technologies have the potential to create new markets, change the competitive landscape of business, create new opportunities, and change existing community and market structures.² Today's development in information technology helps marketers to keep track of customers and provide new communication venues for reaching smaller customer segments more cost effectively and with more personalized messages.

Cengiz and Tetik³ point out that mobile marketing refers to marketing activities that deliver advertisements to mobile devices using a wireless network and mobile advertising solutions to promote the sales of goods and services, or to build brand awareness.⁴ Scharl *et al*⁵ define mobile marketing as using a wireless medium to provide consumers with time- and location-sensitive, personalized information that promotes products, services and ideas, thereby benefiting all stakeholders. They add that the mobile marketing context can be defined as 'any paid form of impersonal

presentation and promotion of goods, services, or ideas by a well-identified promoter'.⁶ Facchetti *et al*⁷ argue that the mobile is now a mainstream marketing element and is one of the channels in a brand's cross-media marketing communications program. It is a means of targeting a consumer anytime and anywhere via the highly personal mobile device. Mobile technologies have been developed to the utmost, especially with G technologies, making mobile marketing one of the three most efficient channels for brands. Jain *et al*⁸ find that the inherent attributes of mobile marketing – personalization, ubiquity, interactivity and localization – distinguish it from other media channels and entail it holding a significant potential for commercial communication. Ranchhod⁹ argues that the mobile marketing channel is not only personal and interactive, but also independent, while Huang¹⁰ points out that mobile marketing is an interactive process that combines push and pull marketing activities, and, more importantly, it has successfully received a higher response rate compared with other marketing approaches because of its two specific features; user permission and acceptance.¹¹ In addition, mobile technology is advantageous because mobile devices are personalized and the use of mobile systems could provide data directly from users with accuracy and immediacy. Smutkupt *et al*¹² state that over the past few years mobile marketing has opened up new opportunities for firms to communicate and engage with their target audience in a more effective way. Megdadi and Nusair¹³ add that the advances in information and communication technologies are not only offering new marketing channels to companies, but also significantly influencing the ways in which companies conduct their business and marketing activities.

From the above discussion, it is apparent that mobile marketing has provided exciting opportunities for marketers as it has allowed

them a portal for promoting their products and services through the information sent by mobile phones. It has also enabled organizations to gain access to target consumers of various identities, locations, and behavioral and social patterns through the information sent to them, while at the same time it has enabled consumers to access a range of diverse and exciting presentations that affect their attitudes and motivation to communicate with organizations and purchase products. Consequently, this research focuses on:

- The role that the adoption of modern communication techniques plays in the success of the execution of marketing activities.
- The importance of the mobile phone to the realization of the communication process and the dissemination of information to consumers.
- The fact that the rapid increase in mobile phone users has prompted the workers in the field of marketing to adopt it as a communication channel in addition to the traditional channels of communication.

RESEARCH QUESTIONS

The aim of this research is to identify the factors that affect the attitudes of consumers (sample respondents) toward mobile marketing. Thus, the following questions are raised:

- Do the attributes of mobile marketing have an effect on the attitudes of consumers (sample respondents)?
- Do the nature of information, its ability to attract users of mobile marketing and its credibility have an effect on the attitudes of consumers (sample respondents) toward mobile marketing?
- Is there a correlation between the attributes of mobile marketing and the nature of information, attraction and

excitement, credibility and consumer attitudes (sample respondents) toward mobile marketing?

- Is there a correlation between the attitudes of consumers (sample respondents) and the nature information, attraction and excitement and credibility?

OBJECTIVES OF THE STUDY

This study aims to focus on factors affecting consumer attitudes toward mobile marketing. Consequently, the objectives are identified as follows:

- Testing the research model, designed to gauge the effect of the attributes of mobile marketing, information, excitement and credibility on the attitudes of consumers (sample respondents) toward mobile marketing.
- Identifying the attributes of mobile marketing that affect the attitudes of consumers (sample respondents) toward mobile marketing.
- Identifying the impact of exciting and attractive information on the attitudes of consumers (sample respondents) about mobile marketing.
- Determining the impact of the credibility of the information on the attitudes of consumers (sample respondents) to mobile marketing.

HYPOTHESES

Group 1: Tests factors affecting consumer attitudes toward mobile marketing.

Hypothesis 1: There is an interest in the attributes of mobile marketing by consumers (sample respondents).

Hypothesis 2: The nature of the information sent over the mobile phone has an effect on consumer attitudes (sample respondents) toward mobile marketing.

Hypothesis 3: Information characterized as attractive and exciting which is sent via the mobile phone has an effect on the attitudes of consumers toward mobile marketing (sample respondents).

Hypothesis 4: The credibility of the information sent over the mobile phone has a positive impact on the attitudes of consumers (sample respondents).

Hypothesis 5: Consumer attitudes (sample respondents) are positive toward mobile marketing.

Group 2:

Hypothesis 6: There is a correlation between the attributes of mobile marketing and information, excitement and attractiveness, credibility and consumer attitudes.

Hypothesis 7: There is a correlation between consumer attitudes (sample respondents) toward mobile marketing and nature of information, excitement, attractiveness and credibility.

Research model

This study is based on a model designed in conformity with studies including Yang,¹⁴ Yaobin *et al*,¹⁵ Vatanparast and Butt,¹⁶ which are in accordance with the nature of this study (Figure 1).

Figure 1: Research model.

The model outlines the following:

- Information
- Trust
- Attraction
- Credibility

PREVIOUS RESEARCHES

The study by Okazaki *et al*¹⁷ focused on factors influencing the decisions of multinational corporations in adopting SMS-based advertising sent through the mobile phone. This study included a survey of 53 of the senior executives of multinational corporations and concluded that brand-building is the result of positive performance in the utilization of mobile phone advertising. Pousttchi and Wiedemann¹⁸ produced a study that was based on the execution of 30 mobile marketing campaigns in Europe to determine the possibility of utilizing mobile marketing in building brands, increasing awareness about them, changing the mental image of the brand and promoting loyalty to them through the use of SMS messages, as these messages reach the target audience every time and remain stored in the device to be referred to anytime. This study showed that SMS messages play an active role in building a mental image of the brand and increasing awareness about it.

Cengiz and Tetik³ focused on the aspect of obtaining permission and the mobile phone user's acceptance of mobile phone messages and provided services. The aim of this study was to analyze the factors that affect the attitudes of mobile phone users in allowing and accepting mobile marketing. The model relied on collecting notes from a survey conducted on 361 mobile phone users on the global system for mobile communications GSM in Turkey. The survey focused on the observation of many factors (usability, acceptance, interaction and recollection) that are believed to affect consumer attitudes toward allowing mobile

marketing. The results of the study indicate that the successful utilization of mobile marketing depends on marketing, users, advertisers, and providers of mobile networks or service operators. The study shows that the adoption of the mobile phone medium in marketing has provided many marketing opportunities for companies, which could lead to an increase in the number of companies adopting mobile marketing. Along the same lines, the study by Ashraf and Kamal¹⁹ aims to determine the factors affecting Pakistani universities students' acceptance of mobile marketing. The researchers applied a questionnaire to a respondent sample of students, and data were analyzed through the use of the coefficient of correlation and regression to understand the correlations between the factors that affect the acceptance of mobile marketing. The results of the study showed the following:

- Interaction, consumer privacy and innovation have a significant effect on students' acceptance of mobile marketing.
- Mobile marketing can be an alternative to traditional means of advertising as marketers are able to successfully access the target audiences.
- Positive attitudes toward mobile phones positively affect attitudes toward mobile marketing.
- The recognition of marketing field workers of the factors that affect the acceptance of mobile phones enables them to recognize many factors that affect the acceptance of mobile marketing.

Megdadi and Nusair¹³ aimed to identify the factors that affect the acceptance of advertising messages through mobile phone, a field study that discusses the importance of advertising in general and of mobile advertising in particular and the impact of the former on the latter. The study sample

consisted of 500 users of mobile phones and concluded the following:

- The content of the advertising message plays an effective role in attracting users, while repeating the message will have a significant negative impact on its acceptance.
- Mobile phone users view the mobile phone as a highly personal device and are very sensitive about the messages they receive. This creates many challenges for marketers and requires more coordination and integration between marketing activities.
- The personal characteristics of the users do not play a dominant role in the value of the advertisement, based on the assumption that the younger the user the more receptive he would be to advertising messages through mobile phones.

The study by Cengiz and Tetik³ aimed to determine the factors affecting consumer attitudes toward allowing permission-based mobile marketing. The study relied on a survey of 361 global systems for mobile communications GSM subscribers in Turkey. The field study focused on the observation of many factors (usability, acceptance, interaction and recollection) that are believed to affect consumer attitudes toward allowing permission-based mobile marketing. The data were analyzed to verify the relationship between levels of perception and to determine whether the result indicates the presence of a relationship between levels of perception and attitudes of consumers toward allowing permission-based mobile marketing. This has shown the following:

- The impact of usability, acceptance, interaction and recollection was positive, although weak, on consumer attitudes toward allowing permission-based mobile marketing.
- The relationship between levels of perception and attitudes of consumers

toward allowing permission-based mobile marketing was also weak.

- Mobile marketing is considered as one of the modern marketing channels and its success depends on the success of mobile phone use.
- Mobile marketing has provided many marketing opportunities for companies, which could lead to an increase in the number of companies adopting mobile marketing.

Over the past few years, mobile marketing has provided new opportunities for companies to communicate with the target audience in an effective manner. However, this tool may not be fully and effectively utilized due to the marketer's lack of experience in mobile marketing at the present time. The study by Smutkupt *et al*¹² (p. 126) therefore aimed to assess the potential effects of mobile phones on marketing activities in general, using the elements of the marketing mix (price, place, promotion, product), and the study has reached the following conclusions:

- Mobile marketing has a significant effect on all the elements of the marketing mix, through the ability to provide data and information in a personal and interactive manner, without the constraints of time and place.
- The successful utilization of mobile marketing depends on the ability of corporations to benefit from this service and to employ it properly.

The results of the study carried out by Michael and Salter²⁰ on young people aged 12–24 years indicate the existence of a number of reasons that prompted the companies to adopt mobile marketing to achieve contact with the target market, namely:

- Newspapers are no longer as popular among this generation.

- This generation prefers watching television programs on Websites whenever convenient to them rather than watching television at specific times.
- They prefer using mobile phones and computers instead of office equipments.
- They share information through mobile phones and social networks.
- They share topics, views, debates and information through social networking.

Zhang and Mao²¹ indicate in the results of a study on the acceptance of Chinese consumers younger than 35 years of advertising through SMS messages that the trust in the advertising messages and the advertiser plays an important role in the acceptance of advertising messages, in addition to the ease of use and social benefits.

THE THEORETICAL DISCUSSION

Varnali and Toker²² (pp. 185–198) argue that the rapid development that took place in mobile phone technology and the evolution of its attributes and the multiplicity of its uses and benefits have prompted marketers to adopt this technology in the execution of marketing activities, and helped companies to grow and prosper.

Mobile marketing or so-called mobile commerce has the ability to change the model of retail sales through direct sales to consumers without the need for going to the retailer, in addition to influencing their purchasing motives.²³

First – The importance of mobile marketing

The importance of mobile marketing can be outlined through the following:

1. The importance of mobile marketing increases through the spread of mobile phone usage and its adoption as the main channel for the promotion of goods and

- services as a means of direct contact with consumers.
2. The popularity and spread of short messages (SMS) as one of the mobile phone applications contributed to increasing the role that mobile marketing plays in communicating with consumers and providing them with information on a regular basis.²⁴
 3. The marketers' adoption of mobile marketing has enabled them to showcase their products to consumers and interest them in buying these products from retail stores.
 4. Doyle²⁵ (pp. 273–277) indicates that the utilization of mobile marketing text messages plays an active role in generating brand awareness and achieving and inducing a positive response from the consumers, through updating sent information due to the shortness of sent messages in addition to its low cost, ease of use and accessibility to the target consumers.
 5. Price offers through mobile marketing offer unique opportunities.
 6. The technology of mobile phones has helped companies increase the effectiveness of product distribution and tracking goods during shipment and the ability to deliver from the nearest truck or outlet, thus playing an active role in reducing storage costs, as well as enabling consumers to keep track of the ordered product, its delivery route and its date of delivery. Mirbagheri and Hejazinia²⁶ (p. 240) argue that by providing the short messages service SMS and multimedia services such as MMS and video, mobile marketing thus enables the marketers to reach a wide range of individuals wherever they are and at any time. Mobile marketing has provided marketing managements with the possibility of advertising, sales promotion and direct marketing in a personal, interactive way, in addition to determining the content of the advertising messages based on the personal information of mobile users.
 7. Ferris²⁷ (pp. 28–37) points out that the integration of communication through mobile phones with the traditional channels of communication reinforces brand awareness.
 8. Mobile marketing has provided the marketers with interactive communication, the confidentiality and continuity of the response, and the ability to quickly determine the level of response to the sent messages.
 9. The rate of target's response to mobile marketing campaigns is higher than that of traditional methods of promotion.

Second – Attributes that distinguish mobile marketing

The particularity of the attributes of mobile marketing has led to its playing an effective role in the changing the process of executing marketing activities. These attributes can be summarized as follows:^{25, 28, 29}

1. Ubiquity is a key attribute of the mobile phone, providing access to information and tracking transactions for the users wherever they are and whenever they want. This provides an advantage for utilizing mobile marketing through contacting users and sending text messages.
2. It also provides a two-way process of communication and interaction between the caller and the recipient through the exchange of information.
3. Marketers were able to target market segments as mobile phones give them the ability to identify the consumers' geographic location and personal identities, which enables them to determine the content of advertising messages accordingly.^{30, 31}
4. The low costs of mobile marketing have encouraged companies to adopt it in the execution of marketing activities.
5. It played an important role in encouraging people to visit retail outlets, and facilitated

the job of salespeople as individuals came to possess sufficient information about goods and services through the messages they received.

6. It enabled the marketing field to formulate text messages and receive the recipients' responses.
7. It provided the users with the ability to accept or reject sent messages.

The integration and interaction of mobile marketing with the traditional advertising media achieves a greater response by individuals to advertising messages.³²

METHODOLOGY

Data source

This study relied on two types of data sources in collecting the necessary data and information to conduct this study:

- Secondary sources pertaining to the information obtained from the available literature and the results of previous studies on the subject of the study in order to develop the study model and hypotheses.
- Primary sources pertaining to collecting data obtained through a primary questionnaire distributed to a group of consumers (30 consumers) from the city of Amman, Jordan in order to identify variables related to the subject of the study. A second questionnaire was then developed and sent to academicians in marketing departments in different Jordanian universities in order to evaluate it and provide guidance through their views and suggestions in finalizing the questionnaire. The questionnaire included 32 questions divided into five dimensions.

The scale and dimension

The statements in the questionnaire were designed according to the quintet (Likert) scale: 5 – very much, 4 – much, 3 – neutral, 2 – a little, 1 – rarely.

The study was divided into five dimensions:

1. Dimension (1): Attributes of mobile marketing, questions 1, 2, 3, 4, 5, 6 and 7.
2. Dimension (2): Nature of the information, questions 8, 9, 10, 11, 12 and 13.
3. Dimension (3): Motivation and attraction, questions 14, 15, 16, 17, 18, 19 and 20.
4. Dimension (4): Credibility, questions 21, 22, 23 and 24.
5. Dimension (5): Attitudes, questions 25, 26, 27, 28, 29, 30, 31 and 32.

The distribution process of the questionnaire lasted from 20 February 2012 until 20 March 2012 in the cities of Amman and Zarqa (Jordan). Four hundred questionnaires were distributed, while 352 questionnaires valid for statistical analysis were received constituting a percentage of 88 per cent.

Method of Analysis

Several statistical techniques were used, including Cronbach's α , frequency analysis, descriptive analysis and Spearman's correlation coefficient for testing the hypotheses (Group 2). The *T*-test was used to accept/reject the hypotheses (Group 1) by testing the average mean of a single sample, based on the value of the scale midpoint: the higher the value the more favorable the attitude, and vice versa. A midpoint equal to 3 was chosen by adding the lower coded value of the Likert scale (1) and the upper coded value (5) of the Likert scale and dividing it by 2. It should be noted that for analytical treatment, 'a little' and 'rarely' were regrouped into 'neutral', while 'strongly agree' was regrouped into 'very much'.

RESULTS

Test of reliability

A reliability coefficient of Cronbach's α of 90 per cent or higher is considered

Table 1: Reliability coefficients

Number of items	Cronbach's α	Number of cases
32	0.90%	352

Table 2: The characteristic of the study sample

Characteristics	Frequency	Per cent
Gender^a		
Male	255	72.4
Female	97	27.6
Age		
18–24	111	31.5
25–31	153	43.5
32–38	74	21.0
39–45	13	3.7
46 and more	1	0.3
Social		
Unmarried	229	65.1
Married	122	34.7
Other	1	0.3
Education		
Baccalaureate	143	40.6
BA	175	49.7
Diploma	27	7.7
Postgraduated	7	2.0
Profession		
Free business	100	28.4
Public sector employees	63	17.9
A private sector employee	137	38.9
Student	46	13.1
Out of work	6	1.7

^aAn equal representation of the gender distribution in the mobile market was not possible due to the reluctance of many women to answer the questionnaire.

‘acceptable’ in most social science research situations. The results of this test in the current study are shown in Table 1.

The characteristics of the study sample

Table 2 lists the characteristics of the study sample.

Results – General

By using descriptive statistics it is shown that the means of all questions are over the hypothetical mean (3), except for questions 5, 15, 25, 27 and 29 as shown in Table 3.

Testing hypotheses

Group 1: Test the impact of factors on consumer attitudes toward mobile marketing

The first dimension (attributes of mobile marketing)

The results of the current research for the first dimension (Hypothesis 1; Table 3) show that there is an interest in the attributes of mobile marketing by consumers (the sample). The analysis in Table 4 illustrates that the overall mean score of respondents, which measures this dimension (Hypothesis 1) as a whole, is 3.5, which is above the scale midpoint (3), with the standard deviation showing small dispersion around this mean.

These results were further validated by one-sample *t*-test, which revealed that the overall mean difference for the dimension as a whole was statistically significant ($N=0.00$) at $Ns=0.05$ with a high *t*-value ($t=15.51$). This score is higher than the tabular *t* (tabular $t=1.96$). As a result, the Hypothesis 1 is accepted, which is ‘There is an interest in the attributes of mobile marketing by consumers (sample respondents)’.

The second dimension (Hypothesis 2) (information)

The results of the current research for the second dimension (Hypothesis 2; Table 5) show that there is an effect of the nature of the information sent using mobile marketing on consumers’ attitudes toward mobile marketing. The analysis in Table 5 illustrates that the overall mean score of respondents, which measures this dimension (Hypothesis 2) as a whole, is 3.52, which is above the scale midpoint (3), with the standard deviation showing small dispersion around this mean.

These results were further validated by one-sample *t*-test, which revealed that overall mean difference for the dimension as a whole was statistically significant

Table 3: Descriptive statistics

	<i>N</i>	<i>Mean</i>	<i>SD</i>
Q1 – Mobile marketing is a modern commercial mean	352	3.88068	0.976926
Q2 – Mobile marketing provides opportunities for choosing appropriate products	352	3.5028	0.98709
Q3 – Mobile marketing facilitates purchasing products	352	3.3920	1.16685
Q4 – Mobile marketing facilitates distributing and selling products	352	3.3409	1.10566
Q5 – Mobile phone messages are received at appropriate times	352	2.6420	1.13089
Q6 – The ease of dealing with organizations through mobile marketing	352	3.7557	1.01693
Q7 – Mobile marketing is characterized as providing easy accessibility to target audience	352	4.0057	0.90265
Q8 – You are interested in messages you receive on your mobile phone	352	3.4489	1.07693
Q9 – You acquire the information you seek about products via the mobile phone	352	3.3040	2.44111
Q10 – Information you receive on your mobile phone is characterized as clear	352	3.5227	1.06728
Q11 – You interact with information sent to you via mobile marketing	352	3.6023	2.81629
Q12 – You follow the information you receive via mobile marketing regarding discounts	352	3.4830	1.02934
Q13 – You show a great deal of interest in messages disclosing discounts and special offers	352	3.7642	1.09834
Q14 – Products offers via mobile marketing are exciting	352	3.3864	1.26475
Q15 – Price offers via mobile marketing are clear	352	2.8381	1.18366
Q16 – The information you receive via the mobile phone is exciting and attractive	352	3.1676	1.92117
Q17 – You gladly receive messages sent to your mobile marketing	352	3.3835	1.13382
Q18 – You cannot wait to receive messages via mobile marketing	352	3.2670	1.08722
Q19 – The huge amount of messages sent via mobile phone prompts you to ignore many of them	352	3.4545	1.03949
Q20 – Entertaining messages have a bigger effect on your following	352	3.1989	1.14489
Q21 – You trust information sent to you via the mobile phone	352	3.5199	1.22633
Q22 – Information sent to you by organizations is characterized as credible	352	3.2131	2.41498
Q23 – Information received via the mobile phone urge you to consider its advertised products	352	3.2756	1.16486
Q24 – You talk with your colleagues about products advertised via the mobile phone	352	3.3722	1.16971
Q25 – Mobile marketing helps in reinforcing the target's mental image of the organization and its products	352	2.2443	1.27320
Q26 – Mobile marketing plays an important role in enhancing loyalty to the organization and its products	352	3.4006	1.18456
Q27 – Mobile marketing contributes to enhancing product awareness	352	2.8494	1.26200
Q28 – Mobile marketing plays an active role in building a relationship between the consumers and the organization	352	3.0568	3.27520
Q29 – Mobile marketing contributes in building brand names	352	2.8722	1.29347
Q30 – Information sent to you via the mobile phone has played an important role in changing your attitude toward products and services	352	3.6420	1.06872
Q31 – Information you receive via the mobile phone play a role in encouraging you to deal with their advertised products	352	3.6648	2.36623
Q32 – You have purchased products via the mobile phone	352	3.8835	1.78672
Valid <i>N</i> (listwise)	352	—	—

($N=0.000$) at $Ns=0.05$ with a high t -value ($t=14.60$). This score is higher than the tabular t (tabular $t=1.96$). As a result, the Hypothesis 2 is accepted, which is ‘The nature of the information sent using mobile marketing has an effect on consumer attitudes toward mobile marketing’.

The third dimension as a whole (Hypothesis 3) (excitement and attraction)

The results of the current research for the third dimension (Hypothesis 3; Table 6) reveal that the excitement and attraction of the information sent over the mobile phone has an effect on the attitudes of consumers toward mobile marketing. The analysis in

Table 4: Test first dimension (Hypothesis 1)

<i>Dimension (Hypothesis 1)</i>	<i>Test value=3</i>			
<i>Attributes of mobile marketing</i>	<i>Mean score</i>	<i>SD</i>	<i>T-value</i>	<i>N</i>
Q1 – Mobile marketing is a modern commercial mean	3.88	0.97	16.91	0.00
Q2 – Mobile marketing provides opportunities for choosing appropriate products	3.50	0.98	9.55	0.00
Q3 – Mobile marketing facilitates purchasing products	3.39	1.16	6.30	0.00
Q4 – Mobile marketing facilitates distributing and selling products	3.34	1.11	5.78	0.00
Q5 – Mobile phone messages are received at appropriate times	2.64	1.13	–5.93	0.00
Q6 – The ease of dealing with organizations through mobile marketing	3.75	1.11	13.94	0.00
Q7 – Mobile marketing is characterized as providing easy accessibility to target audience	4.00	0.90	20.9	0.00
Hypothesis 1: the first dimension whole	3.50	0.60	15.51	

Table 5: Test second dimension (Hypothesis 2)

<i>Dimension (Hypothesis 2)</i>	<i>Test value=3</i>			
<i>Nature of information</i>	<i>Mean score</i>	<i>SD</i>	<i>T-value</i>	<i>N</i>
Q8 – You are interested in messages you receive on your mobile phone	3.4489	1.07693	7.820	0.00
Q9 – You acquire the information you seek about products via the mobile phone	3.3011	1.01003	5.594	0.00
Q10 – Information you receive on your mobile phone is characterized as clear	3.5227	1.06728	9.189	0.00
Q11 – You interact with information sent to you via mobile marketing	3.6023	1.00188	11.278	0.00
Q12 – You follow the information you receive via mobile marketing regarding discounts	3.4830	1.02934	8.803	0.00
Q13 – You show a great deal of interest in messages disclosing discounts and special offers	3.7642	1.09834	13.054	0.00
Hypothesis 2: the second dimension as whole	3.5204	0.66831	14.608	0.00

Table 6: Test third dimension (Hypothesis 3)

<i>Dimension 3 (Hypothesis 3)</i>	<i>Test value=3</i>			
<i>The excitement and attraction</i>	<i>Mean score</i>	<i>SD</i>	<i>T-value</i>	<i>N</i>
Q14 – Products offers via mobile marketing are exciting	3.38	1.26	5.73	0.00
Q15 – Price offers via mobile marketing are clear	2.83	1.18	–2.58	0.01
Q16 – The information you receive via the mobile phone is exciting and attractive	3.16	1.22	2.57	0.01
Q17 – You gladly receive messages sent to your mobile marketing	3.38	1.13	6.34	0.00
Q18 – You cannot wait to receive messages via mobile marketing	3.26	1.08	4.60	0.00
Q19 – The huge amount of messages sent via mobile phone prompts you to ignore many of them	3.45	1.03	8.20	0.00
Q20 – Entertaining messages have a bigger effect on your following	3.19	114.0	3.25	0.01
Hypothesis 3: the third dimension as whole	3.24	0.82	5.49	0.00

Table 6 illustrates that the overall mean score of respondents, which measures the dimension (Hypothesis 3) as a whole, is 3.24, which is above the scale midpoint (3), with the standard deviation showing small

dispersion around this mean. The results were further validated by one-sample *t*-test, which revealed that the overall mean difference for the dimension as a whole was statistically significant ($N=0.00$) at $Ns=0.05$

Table 7: Test fourth dimension (Hypothesis 4)

<i>Dimension 4 (Hypothesis 4)</i>		<i>Test value=3</i>			
<i>The reliability</i>	<i>Mean score</i>	<i>SD</i>	<i>T-value</i>	<i>N</i>	
Q21 – You trust information sent to you via the mobile phone	3.51	1.22	7.95	0.00	
Q22 – Information sent to you by organizations is characterized as credible	3.21	1.15	3.45	0.01	
Q23 – Information received via the mobile phone urge you to consider its advertised products	3.27	1.16	4.43	0.00	
Q24 – You talk with your colleagues about products advertised via the mobile phone	3.37	1.16	5.96	0.00	
Hypothesis 4: the fourth dimension as whole	3.31	0.90	6.54	0.00	

Table 8: Test the fifth dimension (Hypothesis 5)

<i>Dimension 5 (Hypothesis 5)</i>		<i>Test value=3</i>			
<i>Consumer attitudes</i>	<i>Mean score</i>	<i>SD</i>	<i>T-value</i>	<i>N</i>	
Q25 – Mobile marketing helps in reinforcing the target's mental image of the organization and its products	2.21	1.16	-12.66	0.00	
Q26 – Mobile marketing plays an important role in enhancing loyalty to the organization and its products	3.40	1.18	6.34	0.00	
Q27 – Mobile marketing contributes to enhancing product awareness	2.84	1.26	-2.23	0.02	
Q28 – Mobile marketing plays an active role in building a relationship between the consumers and the organization	3.05	1.20	0.88	0.37	
Q29 – Mobile marketing contributes in building brand names	2.87	1.29	-1.85	0.65	
Q30 – Information sent to you via the mobile phone has played an important role in changing your attitude toward products and services	3.64	1.06	11.27	0.00	
Q31 – Information you receive via the mobile phone play a role in encouraging you to deal with their advertised products	3.66	1.09	11.36	0.00	
Q32 – You have purchased products via the mobile phone	3.96	1.78	10.11	0.00	
Hypothesis 5: the fifth dimension as whole	3.201	0.65	5.97	0.00	

with a high t -value ($t=5.49$). This score is higher than the tabular t (tabular $t=1.96$). As a result, the Hypothesis 3 is accepted, which is 'The excitement and attraction of the information sent using mobile marketing has an effect on the attitudes of consumers toward mobile marketing'.

Fourth dimension (Hypothesis 4) (credibility)

The results of the current research for the fourth dimension (Hypothesis 4; Table 7) reveal that the respondents indicate that a weak response toward the credibility of the information sent using mobile marketing has a positive impact on the attitudes of consumers. The analysis in Table 7 illustrates that the overall mean score of respondents, which measures this dimension (Hypothesis 4) as a whole, is 3.31, which is above the scale midpoint (3),

with the standard deviation showing small dispersion around this mean.

These results were further validated by one-sample t -test, which revealed that the overall mean difference for the dimension as a whole was statistically significant ($N=0.00$) at $Ns=0.05$ with a high t -value ($t=6.54$). This score is higher than the tabular t (tabular $t=1.96$). As a result, the Hypothesis 4 is accepted, which is 'The credibility of the information sent using mobile marketing has a positive impact on the attitudes of consumers'.

Fifth dimension (Hypothesis 5) (consumer attitudes)

The results of the current research for the fifth dimension (Hypothesis 5; Table 8) reveal that consumer attitudes are positive toward mobile marketing. The analysis in

Table 9: Spearman's correlation coefficient

<i>Dimension (1)</i> <i>Attributes of mobile marketing</i>	<i>Dimension (2)</i> <i>Nature of information</i>	<i>Dimension (3)</i> <i>Excitement and attraction</i>	<i>Dimension (4)</i> <i>Credibility</i>	<i>Dimension (5)</i> <i>Consumer attitudes</i>
—	0.382	0.438	0.454	0.192

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

Table 10: Spearman's correlation coefficient

<i>Dimension (5)</i> <i>Consumer attitudes</i>	<i>Dimension (2)</i> <i>Nature of information</i>	<i>Dimension (3)</i> <i>Excitement and attraction</i>	<i>Dimension (4)</i> <i>Credibility</i>
—	0.231	0.421	0.358

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

Table 8 illustrates that the overall mean score of respondents, which measures this dimension (Hypothesis 5) as a whole, is 3.20, which is above the scale midpoint (3), with the standard deviation showing small dispersion around this mean.

These results were further validated by one-sample *t*-test, which revealed that the overall mean difference for the dimension as a whole was statistically significant ($N=0.00$) at $Ns=0.05$ with a high *t*-value ($t=5.97$). This score is higher than the tabular *t* (tabular $t=1.96$). As a result, the Hypothesis 5 is accepted, which is 'Consumer attitudes are positive toward mobile marketing'.

Group 2: Test model study

In order to test the relationship between the components of the study model, Spearman's correlation coefficient was adopted and two hypotheses were developed (Hypothesis 6 and Hypothesis 7) for this test.

Hypothesis 6

There is a correlation between the attributes of mobile marketing and information, excitement and attraction, credibility and consumer attitudes. Results of the analysis of the Spearman's correlation coefficient are shown in Table 9.

In Table 9 the Spearman correlation coefficient refers to the moral relationship

between the components of the study model, this result refers to the acceptance of Hypothesis 6.

Hypothesis 7

There is a correlation between consumer attitudes toward mobile marketing and nature of information, excitement, attraction and credibility.

Results of an analysis of the Spearman's correlation coefficient are shown in Table 10.

Table 10 shows the Spearman's correlation coefficient between consumer attitudes and nature of information, excitement and attraction and credibility, and thus it is an accepted Hypothesis 7.

DISCUSSION AND CONCLUSION

The aim of this study is to identify the factors affecting the attitudes of consumers (sample respondents) toward mobile marketing by examining several areas related to this subject, including the attributes of mobile marketing, the nature of sent information, excitement and attractiveness and credibility, and determining the effect of these factors on the attitudes of consumers (sample respondents) toward mobile marketing. In order to reach the objectives of this study a research model was developed, which consists of five dimensions. The

hypotheses of the study are divided into two groups. The first group includes five hypotheses and focuses on testing the factors affecting the attitudes of consumers (sample respondents) toward mobile marketing; this test was conducted through the use of *T*-value (one-sample *t*-test) statistical analysis. The second group, which includes Hypotheses 6 and 7, pertains to testing the research model; Spearman's correlation was used to determine the correlation between the components of the model.

The results of this study indicate that:

- The validity of all the hypotheses of the study and the attributes of mobile marketing, the nature of sent information, excitement and attractiveness and credibility have an effect on the attitudes of consumers (sample respondents).
- There is a correlation between the attributes of mobile marketing and the nature of information, attraction and excitement, credibility and consumer attitudes (sample respondents) toward mobile marketing.
- There is a correlation between consumer attitudes (sample respondents) toward mobile marketing and the nature of information, attraction and excitement and credibility.
- Question 7 (mobile marketing is characterized as providing easy accessibility to target audience) ranked first among other questions, and this indicates that consumers (sample respondents) find that mobile marketing does provide easy accessibility to the target market. Conversely, question 25 (mobile marketing helps in reinforcing the target's mental image of the organization and its products) ranked last among the questions of the questionnaire indicating that consumers (sample respondents) find that the role of mobile marketing in enhancing the image of products and organizations is very weak.

This study is unique in its investigation of various factors not collectively investigated by previous researches, including the attributes of mobile marketing and the factors of excitement and attraction. Some of these factors were investigated by researchers such as Cengiz and Tetik,³ who focused on some of the attributes of mobile marketing, including the ease of use and interaction, and the consideration of mobile marketing as a modern means of marketing. The findings of the present study are in accordance with the study by Cengiz and Tetik³ as well as the study by Ashraf and Kamal,¹⁹ which indicated that mobile marketing can be an alternative to the conventional means of advertising in providing easy access to the target audience and successfully achieving an interactive exchange of information via the mobile phone. The present study additionally concurs with the study by Megdadi and Nusair¹³ in that the information contained in advertising messages sent through the mobile phone has an effective role in encouraging mobile phone users to interact with this information. However, the results of the present study were not in accordance with the studies by Okazaki and Taylor³³ and Pousttchi and Wiedemann¹⁸ regarding the role played by sent messages in brand-building.

Finally, the present research is considered to be an in-depth study identifying the factors that influence consumer attitudes toward mobile marketing. Both companies that utilize mobile marketing and companies that plan to utilize it in the future should work on targeting consumers with marketing activities that enable them to build a bright mental image and a positive attitude toward its products, and on developing the content of sent messages to make them more effective at building brand loyalty and motivating consumers to purchase goods and services.

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