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Building a Model for Determining the Factors Affecting Mobile Marketing Acceptance and Adoption

AMER M. SHOTER
Amman, Jordan, Noorsat Corporation
Email: Amershoter@noorsat.com

ABDALLAH Q. BATAINEH
Amman, Jordan, Applied Science Private University
Email: A_bataineh@asu.edu.jo

HANADI A. SALHAB
Saudi Arabia, Tabouk University
Email: Hanadisalhab@hotmail.com

Abstract

This research aimed to develop a conceptual model of mobile marketing acceptance and adoption and empirically test it in the Jordanian market. The research methodology and design have utilized a quantitative approach in which a structured questionnaire was developed as a primary data collection method. The research population was all mobile subscribers who have active mobile lines in the Jordanian market. The sample size was 2000 mobile subscribers. The response rate was 73.5%; 1470 questionnaires were returned for analysis, while the valid number of questionnaires used was 1330 from the returned questionnaires. The data analysis strategy has used quantitative statistical analysis using descriptive and statistical analyses. Social Package for Social Sciences (SPSS-19) and Structural Equation Modeling (EQS6) software packages were utilized in the analysis strategy to achieve the research objectives. The results showed that perceived ease of use, social norms, content and customization have a negative and significant effect on mobile marketing acceptance. Meanwhile, perceived usefulness, entertainment and credibility have a positive and significant effect on mobile marketing acceptance. Also, privacy has a non-significant effect on mobile marketing acceptance but its effect is positive. Further, mobile marketing acceptance has no mediation effect on the relationship between factors affecting mobile marketing acceptance and mobile marketing adoption. Mobile marketing acceptance has a non-significant positive effect on mobile marketing adoption. Research conclusions, practical recommendations, contributions to the mobile marketing literature and future research opportunities are also discussed.

Key Words: *Mobile Marketing, Adoption, Acceptance, Perceived Usefulness, Entertainment and Jordan.*

Introduction

Information technology affects everything in the 21st century, from daily life to business. In business environment, it shapes not only commerce, but also the way in which companies implement their marketing strategies. Offering new marketing channels to interact with customers is crucial to increase sales for companies. The extensive coverage of mobile telecommunication infrastructure, the dramatic increase in mobile penetration rate, the advances in wireless communication technology, and the tremendous growth of mobile messaging volume add up to the prosperity of mobile marketing. Specifically, mass markets have

been broken down into fragmented markets. One of the advances in information technology is wireless mobile communication technology that makes the "anytime-to-anyplace" communication possible. The mobile phone is rapidly becoming one of the most influential media for marketing, since the advent of the Internet. Nowadays, mobile marketing acceptance is on the rise, but marketers would have little ability to consistently generate profits without a clear understanding of the elements driving consumer acceptance (Becker, 2005).

This research contributes in offering the scientific knowledge related to mobile marketing for academics and managers in mobile service companies whereas Arabic literature lacks of studies related to mobile marketing, as of the researcher knowledge. On the other hand, this research helps the mobile service providers to recognize the factors affecting mobile marketing acceptance, so they can succeed and face different challenges. Despite the marketing potential, academic research in mobile marketing is still in its early stages.

Importance and Contribution of the Research

This research attempts to contribute to the mobile marketing literature from several dimensions. From an academic viewpoint, according to the researcher's best knowledge, this is the first research effort in Jordan that attempts to develop a framework aimed at understanding factors that affect mobile marketing acceptance and adoption within the Jordanian context. The majority of previous researches conducted on mobile marketing and advertising encouraged more researches in this area and supported the idea of developing and testing models of mobile marketing in several business contexts and environments, Jordan is no exception.

From a practical viewpoint, this research offers several types of businesses in Jordan, an empirical model of mobile marketing acceptance and adoption factors that affect mobile adoption as a new marketing tool.
From an international marketing viewpoint, this research gives international organizations operating in Jordan and those that are entering the Jordanian market an invaluable opportunity to gain insights on Jordanian consumer's behavior in accepting and adopting mobile marketing as a nontraditional marketing technique. Finally, this research hopes to establish a new research line in the field of mobile marketing in Jordan and in developing countries in general.

Literature Review and Hypotheses Development

Perceived Ease of Use

Perceived ease of use is an important indicator of whether a person is willing to adopt or use such technology (Karjaluoto and Leppaniemil, 2008). A consumer should not ideally face any technical difficulties when receiving a mobile phone message; he/she should be able to access the marketing message without any hassle (Carroll et al., 2007). Empirical studies have underlined the effect of ease of use on MMA (Davis, 1989; Luarn and Lin, 2005; Nysveen et al., 2005; Wang and Liao, 2007). In the context of adoption of mobile technology (Nysveen et al., 2005), found that consumers' perception of ease of use influenced the formation of positive beliefs about perceived usefulness. Hence, it can be hypothesized that:

H_1: There is no significant effect of perceived ease of use on mobile marketing acceptance.

Perceived Usefulness

Various studies have proved that there are positive relationships between perceived usefulness and attitude (Cheong and Park, 2005; Nysveen et al., 2005; Lu and Su, 2009). The findings of those propose that a consumer's perception of the usefulness associated with mobile marketing will positively influence the attitude towards using. Therefore, the direct effect of perceived usefulness in technology acceptance has been emphasized by empirical research (e.g. Pagani, 2004; Nysveen et al., 2005). In the context of adoption

of mobile technology (Nysveen et al., 2005), it was found that consumers' perception of ease of use results in positive beliefs about perceived usefulness. Hence, it can be hypothesized that:

H_2: There is no significant effect of perceived usefulness on mobile marketing acceptance.

Social Norms

When deciding to use a new product or service, social norms have influence on decision making, such as the opinions of family and friends. (Pedersen and Ling, 2003), suggested that external and social influences cannot be ignored in any adoption model because of their role in adoption behavior. In mobile marketing context, subjective norm refers to the perceived pressure from the people who consumers think are important to them. The influence of subjective norm on behavioral intention has shown inconsistent result in previous studies. The studies by (Karahanna et al., 2000; Chan and Lu, 2004; Lu et al., 2009) had proved that subjective norm has a positive direct influence towards behavioral intention. Hence, it can be hypothesized that:

H_3: There is no significant effect of social norms on mobile marketing acceptance.

Entertainment

Entertainment / enjoyment play a significant role in forming overall attitudes towards mobile marketing (Shavitt et al., 1998). Customers like to enjoy their shopping experience, and so by providing incentives such as games and prizes, and so on. Empirically, (Haghirian and Madlberger, 2005), found that the acceptance of SMS ads are influenced by advertising value and content. In the same vein (Bauer et al., 2005; Xu and Guitierrez, 2006), found that entertainment is influential in consumer attitudes toward mobile advertising, but (Jun and Lee, 2007), did not. (Xu and Gutierrez, 2006; Jun and Lee, 2007), also described that entertainment value, perceived playfulness or enjoyment in relation to the acceptance of mobile systems. These findings have proved that creating a fun and enjoyable situation may help to create favorable consumers' perceptions contributing to the usage of innovative technologies. Hence, it can be hypothesized that:

H_4: There is no significant effect of entertainment on mobile marketing acceptance.

Credibility

Building customer trust is a complex process that involves technology and business practices, and is crucial for the growth and success of mobile commerce (Siau and Shen, 2003). Since communication with consumers via their mobile devices is a very young phenomenon, marketers are requested to build and breed trust. Credibility of an advertisement is influenced by different factors, especially by the company's credibility and the bearer of the message (Goldsmith et al., 2000), as well as the advertising medium. Empirical research has shown that the credibility of a mobile advertising message positively influences the consumers' perceived advertising value (Haghirian and Madlberger, 2005).

Hence, advertisers can benefit from viral marketing, as the customer forwarding the advertisement becomes the sender of the message and the message gains in credibility. Advertising credibility equals truthfulness and believability of advertising in general to the consumer (Pavlou and Stewart, 2000). We can expect that the credibility of messages transferred to mobile devices can also influence consumer attitude toward the advertising. Hence, it can be hypothesized that:

H_5: There is no significant effect of credibility on mobile marketing acceptance.

Content

Content is a key factor in creating a service that attracts users and keeps them coming back (Paavilainen, 2002). Therefore, the message should be kept short and the use of graphics or photos should be encouraged (Edens and McCormick, 2000). Humor and surprises in the design of the advertisement create positive feelings toward the advertisement and may lead to viral marketing, especially among younger receivers (Barwise and Strong, 2002). Further evidence, the acceptance of a mobile marketing message is likely to be influenced by the consumer's acceptance of the mobile medium, the relevance of the content, and the context of the marketing message (Barnes and Scornavacca, 2004; Bauer et al., 2005). Hence, it can be hypothesized that:

H_6: There is no significant effect of content on mobile marketing acceptance.

Customization

Consumers consider mobile devices to be very personal (Clarke, 2001). Therefore, customizing or personalizing the message sent to each individual consumer may create a positive impression and lead to trust between consumers and marketers (Xu and Gutierrez, 2006). Customization in general, means understanding the different kinds of preferences, needs, mindsets, lifestyles, and geographical differences of individuals in order to gain their customer loyalty and maintain meaningful one-to-one relationships with them (Riecken, 2000). Mobile marketers can customize the mobile messages based on the consumer's profile, local time, location, and preferences (Richards and Curran, 2002; Rao and Minakakis, 2003). Hence, it can be hypothesized that:

H_7: There is no significant effect of customization on mobile marketing acceptance.

Privacy

Privacy is a top concern for consumers (Krishnamurthy, 2001; Murphy et al., 2002; Kent and Brandal, 2003), and has always been a critical issue in marketing, but with the rise of Internet-based commercial transactions in recent years, it has gained special attention (Rust et al., 2002). As mobile communication has become more and more ubiquitous and the amount of information traveling wirelessly increases, the analysis, planning, and implementation of security architecture becomes extremely important (UMTS Forum Report, 2003). According to (Forrester Research, 2001), 80% of consumers fear invasion of their privacy in SMS campaigns. Empirical research has shown that risk perception, defined by concern over misuse of personal data and receiving unwanted mobile marketing messages, negatively affects consumers' attitudes toward mobile marketing (Bauer, et al., 2005), and that, in a trial research of permission-based mobile advertising, explicit consumer permission to receive mobile advertisements can influence relatively high acceptance levels (Barwise and Strong, 2002). Hence, it can be hypothesized that:

H_8: There is no significant effect of privacy on mobile marketing acceptance.

Mobile Marketing Acceptance and Adoption

Mobile marketing acceptance, as measured by behavioral intent toward mobile marketing, is the key outcome variable in this research. Behavioral intent is defined as "the strength of one's intention to perform a specified behavior" (Fishbein and Ajzen, 1975, p. 288). It is argued that acceptance of mobile marketing relates specifically to intentions of engaging in mobile marketing activities beyond mobile data services that involve interactions between marketing entities (e.g. brands), and consumers. Findings from more recent research suggest that acceptance of mobile marketing is influenced by consumers' acceptance of the mobile medium itself (Carroll et al., 2007; Peters et al., 2007). Recently, (Peters et al., 2007), found that the need for a diversion among college students was linked with positive reviews towards mobile advertising,

indicating that consumers' use of a medium for one set of activities or purposes can prime them to accept this medium for a new set of activities. A similar finding was obtained by (Laforet and Li, 2005), in a research of Chinese consumer adoption of online and mobile banking where the authors noted a significant influence of previous experience with computers on consumers' use of online banking. Empirically, findings from recent studies related to digital communications employing the TAM and uses and gratifications perspectives suggest that, from the point-of view of the individual consumer, digital media is used for purposes of both entertainment, play, and utility e.g. (Bruner and Kumar, 2005; Haghirian et al., 2005; Nysveen et al., 2005).

The Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use technology. For instance, (Bruner and Kumar, 2005), applied TAM to consumers' use of mobile devices (e.g. cell phones) and suggested that enjoyment of mobile device usage is a stronger predictor of attitude toward usage than such traditional TAM constructs as perceived usefulness. Similarly, (Nysveen et al., 2005), found that both perceived usefulness and perceived enjoyment are directly related to intention to use mobile data services. Furthermore, (Haghirian et al., 2005), found that both the entertainment and the information associated with advertising content are related to perceived advertising value in the mobile context, and (Grant and O'Donohoe, 2007), suggested entertainment, social stimulation, escapism, and purchase information and advice are motives for young consumers to engage in mobile marketing communication, Increased usage of mobile technology is another important reason for researching the factors behind its adoption and usage. The presence of computer and information technologies in today's organizations has expanded dramatically, (Venkatesh et al., 2003).

Many researchers extended the models and studies done on intention to behave and to use technology, to focus on intention to use mobile services. (Rogers, 1983), defines adoption as "a decision to make a full use of an innovation". In this research, this is translated into the actual use of mobile services. (Davis, 1989), also adds that attitude toward using and the intention to use are the factors that influence adoption. (Nysveen et al., 2005), uses further intention to use mobile services as a substitute measure on the adoption of mobile services. Since most authors use "intention to use", it will be used in this research as a measure of adoption of mobile services. (Nysveen et al., 2005), studies show strong support for the effects of motivational influences (usefulness, ease of use, enjoyment and expressiveness), attitudinal influences (attitude), subjective norms and perceived control on consumer's intentions to use mobile services.

The research of (Hung et al., 2003) on adoption of WAP services using theory of planned behavior and innovation diffusion theory, indicates that connection speed, user satisfaction, personal innovativeness, ease of use and usefulness determined intention to use WAP services indirectly through attitude. Peer influence was revealed to determine the intention through subjective norms, and self efficacy determined intention to use WAP services through perceived behavioral control. Attitude, subjective norms and perceived behavioral control were all critical factors influencing the use of mobile WAP services. However, in their research, attitude and subjective norms determined the use of mobile WAP services indirectly through the intention to use. Perceived behavioral control was not supported in this research for determining the intention to use, as it only directly determined the use of mobile WAP services. (Teo and Pok, 2003), examined the factors influencing the adoption of WAP-enabled mobile phones among internet users by using the theory of reasoned action, theory of planned behavior, technology acceptance model, and the innovation diffusion theory as a theoretical basis, since it attempted to explain the intention of certain behavior and adoption of certain technology. The results confirm the same as in (Hung et al., 2003), research, namely that attitudinal factors and subjective norms, rather than perceived behavioral control, are what influence intention to use a WAP –enabled mobile phone. The above discussion illustrates that attitudes toward intention to use mobile services have been significant in all studies. It is interesting to make a cross-cultural research on the adoption of mobile services such as mobile internet, Based on the discussed literature review, it can be hypo researched that:

$H0_9$: There is no significant effect of mobile marketing acceptance on mobile marketing adoption.

Mobile Marketing Acceptance Mediation Effect

Based on the previous discussion of the research model and hypotheses, it is clearly stated that we are testing an integrated model of technology acceptance and adoption model which is consistent with the discussed literature. Consequently, it is valuable to examine if mobile marketing acceptance operates as a mediating variable on the proposed relationships between factors affecting mobile marketing acceptance and mobile marketing adoption. Having said that it can be hypo research that:

$H0_{10}$: There is no mediation effect for mobile marketing acceptance on the relationship between factors affecting mobile marketing acceptance and mobile marketing adoption.

Conceptual Model of the Research

Based on relevant literature review, the proposed research model is shown in figure (1) shows that there are a number of factors affecting Mobile Marketing Acceptance and Adoption.

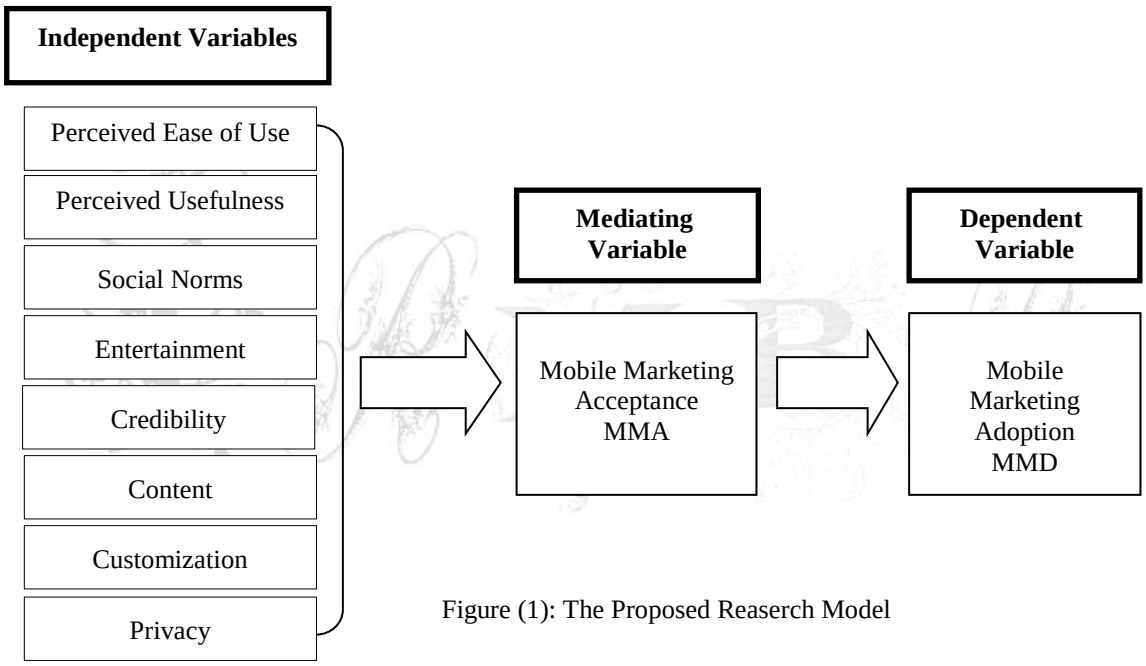

Figure (1): The Proposed Reaserch Model

Research Methodology

Research Population and Sample

The research population is defined as all mobile subscribers who have active mobile lines in the Jordanian market by the end of 2013 and are in Jordan. There are three mobile service operators in Jordan, which are Zain, Orange and Umniah. A convenience sample was chosen from greater Amman area which is considered as a sample since it has diversity and population intensity at the same time. The sample size was determined to be 2000 mobile subscribers. This was identified based on the number of items included in the questionnaire and the number of questionnaires needed for each item to have a stable statistical analysis (Hair et al., 1998). After using both electronic and traditional channel to distribute the 2000 questionnaires, unfortunately, 1470 questionnaires were returned for analysis, the response rate (74%) was

relatively high, where the valid number of questionnaires used was (1330) from the returned questionnaires.

Questionnaire and Data Collection

The research questionnaire was developed based on the relevant literature review of mobile marketing acceptance and adoption. All the research variables, items and measurements were adapted from previous research. A small section was also included in the questionnaire to research the respondents' characteristics. The primary data collection process was carried out using a highly structured questionnaire that was adapted from relevant literatures to achieve the research purposes. Factors affecting mobile marketing acceptance, mobile marketing acceptance and adoption, were measured on five-point Likert scale.

Variables Measurement Items

Items measuring the model's variables were adopted from previous research. Table (1) shows the research variables' measurement items and their sources:

Table (1) Research Variables Operational Definition and Measurements

Variable measurement	Reference
Perceived ease of use	Kim et al., 2009; Hsu and Lu, 2004
Perceived usefulness	Kim et al., 2009
Social norms	Jun and Lee, 2007; Dickinger and Kleijnen, 2008
Entertainment	Altuna and Konuk, 2009; Kim et al, 2009
Credibility	Luxton and Ferraro,2009; Vatanparast and Asil, 2007
Content	Vatanparast and Asil, 2007; Altuna and Konuk, 2009
Customization	Peng, 2006
Privacy	Rohm and Sultan, 2006
Mobile Marketing Acceptance	Rohm and Sultan, 2006
Mobile Marketing Adoption	Hsu and Lu, 2004; Bauer et al., 2005

Sample Characteristics

Table (2) exhibits the research sample characteristics. A filtering question was used to reveal if each mobile subscriber used his mobile in some shopping aspects and if the mobile subscriber subscription was monthly bill or prepaid card to proceed in answering the questionnaire.

Table (2) Sample Characteristics Frequencies

Variable	Frequency	Percent
Subscription		
Monthly bill	365	27.4
Prepaid card	965	72.6
Gender		
Male	830	62.4
Female	500	37.6
Age		
Less than 20	119	8.9
21-30	313	23.5
31-40	509	38.3

41-50	281	21.1
51-60	108	8.1
Education		
High school	153	11.5
College degree	287	21.6
Bachelor	633	47.6
Master	246	18.5
PhD	11	0.8
Income		
Less than 300	535	40.2
300-599	497	37.4
600-899	192	14.4
900-1199	48	3.6
1200-1499	39	2.9
1500 and more	19	1.4
Occupation		
Student	429	32.3
Businessman	298	22.4
Employee	600	45.1
Unemployed	3	0.2
Total	**1330**	**100.0**

Descriptive statistical analysis has been used to describe the sample demographic characteristics. Table (2) shows the research sample characteristics using frequencies and percentages. Table (2) results show that shows that 72.6% of mobile service subscribers they have the prepaid card subscription meanwhile is 27.4% of them use the monthly bill subscription. This finding is consistent with the mobile industry trend that indicates an increasing number of prepaid card subscriptions due to operators' competitive offers. The highest percentage of subscribers is males representing 62.4 % of total sample while the females were only 37.6 %. Regarding the respondents' age, the findings show that that the highest percentage, 38.3%, is represented by the category of (31-40 years) which is consistent with the Jordanian population in which more than 70% of its people are still young. This would be helpful for mobile marketing purposes now and in the future. The findings show that around two-third of the research respondents are well educated which indicates that they would be more inclined to do mobile marketing transaction especially in the future. This supported by the fact that Jordan's literacy rate is very high approaching 99%. Moreover, around 60% of the research respondents have monthly income more than 300 JDs. This result is reasonable since the majority of the respondents are still young and at least one third of them are still university students. At the same time, according to the General Statistics Department, around 80% of Jordanians enjoy monthly income levels less than 1000 JDs. The main marketing implication is that companies that have intention to launch marketing campaigns over mobile phones should have competitive offers for potential customers.

Data Analysis

Descriptive Analysis

Table (3) presents the research variables and items descriptive statistics:

Table (3) Research Variables and Items Descriptive Statistics

Code	Variable and Measurements	Mean	S.Deviation
Perceived ease of use			
PEU1	Using a mobile in shopping is Clear and understandable	3.5165	0.71643

Code	Variable and Measurements	Mean	S.Deviation
PEU2	Using a mobile in shopping does not require a lot of mental effort	3.5398	0.70385
PEU3	Using a mobile in shopping is easy and comfortable	3.5105	0.68979
PEU4	I can use the mobile for shopping in my way	3.6143	0.71905
PEU5	Shopping via mobile is easy to learn	3.5639	0.75176
Perceived usefulness	**3.5490**		
PU1	Using a mobile improves communication with friends and family	4.0932	0.99072
PU2	Using a mobile enhances effectiveness in communication	4.0805	0.98078
PU3	Using a mobile is useful in communicating what you want	3.9376	0.92934
PU4	Using a mobile Improves communication ability	4.0368	0.99932
PU5	Using a mobile makes me save time and effort	4.0195	1.06574
Social norms	**3.3612**		
SN1	Using a mobile for the purpose of getting along with others	2.1556	1.20906
SN2	Using a mobile to feel closer to people you know	2.0586	1.23024
SN3	Using a mobile to improve the relationship with people	1.9466	1.15900
SN4	Using a mobile to communicate more often with family and friends	2.2752	1.20610
SN5	Using a mobile to keep good relationships	2.2098	1.16394
Entertainment	**2.1291**		
EN1	Overall, I like shopping via mobile	3.4632	1.46458
EN2	I am greatly impressed by mobile ads	3.8692	1.26991
EN3	I feel mobile shopping is amazing	3.5835	1.29746
EN4	I get in a good mood when shopping via mobile	3.4556	1.32007
Credibility	**3.5928**		
CR1	I would use mobile shopping as reference for purchasing a product or service	2.1278	1.02353
CR2	I trust mobile shopping	2.3774	1.11171
CR3	I trust advertisements that have my name on them	2.3992	1.06557
CR4	I am impressed by mobile shopping	2.3481	1.07219
Content	**2.3131**		
CO1	I feel that mobile shopping is a good source for timely information	3.1707	1.51398
CO2	Mobile shopping provides the information I need	3.3165	1.49887
CO3	I trust the content of mobile shopping messages	3.3684	1.49830
CO4	I feel there is exaggeration in content of mobile shopping	3.3203	1.46480
Customization	**3.2939**		
CU1	A clear price for product/service increases my response or purchase intention	2.1233	1.08958
CU2	Using the opt-in method increases my response or purchase intention	2.0556	1.13295
CU3	Higher credibility advertising content can increase response and purchase intention	2.1759	1.08995
CU4	Offering a prize increases my response or purchase intention	2.2744	1.11182
CU5	Mobile advertising using teaser content can increase my response intention	2.0414	1.13057
Privacy	**2.1341**		
PR1	SMS , combined photo and music (MMS) will increase response and purchase intension	3.0782	1.08546
PR2	I would provide a website with personal Information (such as my e-mail address) to be including in a contest	3.1346	1.08546
PR3	I would provide a website with personal information (such as my e-mail address) to receive discounts on future purchases	3.1038	1.07495

Code	Variable and Measurements	Mean	S.Deviation
PR4	I look for to read privacy policies on the mobile shopping	3.1579	1.08094
PR5	When given the chance, I opt-out of third party information sharing	3.1571	1.07861
Mobile Marketing Acceptance (1)	**3.1263**		
MMA3	I would like to e-mail others (friends family and co -workers) using my mobile	4.2910	0.82127
MMA4	I would like to register for a contest or promotion using my mobile	4.2639	0.79708
MMA5	I would like to download content (wallpaper , ringtone, etc) using my mobile	4.2895	0.90211
Mobile Marketing Acceptance (2)	**4.2814**		
MMA1	I would like to register with a web site using my mobile	4.3391	0.74724
MMA2	I would like to download content like games and ringtones using my Mobile	4.3271	0.81128
MMA7	I don't mind paying for content such as games or ringtones for my Mobile	4.2925	0.82713
Mobile Marketing Adoption	**4.3195**		
MMD1	I look positively for receiving mobile advertising messages	3.5053	1.38748
MMD2	I am willing to receive mobile advertising messages	3.7226	1.18386
MMD3	Given the chance , I am willing to shop by mobile from time to time	3.6060	1.17522
MMD4	I will strongly recommend others to use the mobile as marketing tool	3.6564	1.23102
Total =	**3.6225**		

Variables Validity and Composite Reliability

The researchers used three types of validity as follow:

1. The ***face validity*** was assessed through the pilot work of the research instrument with ten academics from reputable universities in Jordan who checked the relevance and appropriateness of the questionnaire to achieve the research objectives providing evidence of face validity.

2. ***Content validity***, the fundamental issue in content validity, is the methodology used to develop the research questionnaire (Churchill, 2001), which included: (a) conducting an examination on the previous empirical and theoretical work of mobile marketing acceptance and adoption. (b) Conducting the pilot research before starting the fieldwork.

3. ***Construct validity***, as recommended by (Hair et al., 1998), exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) are used to assess construct validity. Thus EFA was performed to test the unidimensionality of the research variables to test the degree to which the items are tapping the same concept. CFA, derived from structural equation modeling (SEM), is a more rigorous test of unidimensionality (Garver and Mentzer, 1999, p.40). Thus CFA was also utilised to confirm or refine the unidimensionality of measurements that resulted from the EFA.

To assess the EFA, four commonly used assumptions were followed by (Hair et al., 1998), which are shown in Table (7). Statistical Package for Social Sciences shows which variables 'clump together'. Factor loadings are the correlations of the variables with the factor, the weighted combination of variables which best explains the variance. Higher values (e.g. more than 0.40) making the variable representative of the factor (Hair et al., 1998, p.106).

Exploratory Factors Analysis (EFA)

Based on Eigen value greater than 1, EFA results shown in table (4) indicate that eleven factors were found which explain 70.56% of the total variance. The EFA shows that the eleven variables loadings and items were consistent with the literature review. Eight variables belong to the independent variables; two variables belong to mobile marketing acceptance which loaded on two dimensions, which were named as informative mobile marketing acceptance and entertainment mobile marketing acceptance; and finally one variable was for mobile marketing adoption. The EFA results show that one item from mobile marketing acceptance (MMA6) and one item from mobile marketing adoption (MMD4) were deleted during the EFA analysis due to weak factor loading; factor loading is less than 40.

Table (4) Exploratory Factor Analysis Results

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
Privacy	**Eigen Value is: 6.38**										
PR1	**0.83**										
PR2	**0.89**										
PR3	**0.91**										
PR4	**0.93**										
PR5	**0.93**										
Customization	**Eigen Value is: 5.10**										
CU1		**0.85**									
CU2		**0.88**									
CU3		**0.89**									
CU4		**0.85**									
CU5		**0.86**									
Perceived Ease Of Use	**Eigen Value is: 3.39**										
PEU1			**0.72**								
PEU2			**0.81**								
PEU3			**0.85**								
PEU4			**0.79**								
PEU5			**0.76**								
Content	**Eigen Value is: 3.16**										
CO1				**0.87**							
CO2				**0.91**							
CO3				**0.91**							
CO4				**0.89**							
Credibility	**Eigen Value is: 2.94**										
CR1					**0.83**						
CR2					**0.93**						
CR3					**0.93**						
CR4					**0.87**						
Social Norms	**Eigen Value is: 2.68**										
SN1						**0.71**					
SN2						**0.75**					
SN3						**0.83**					
SN4						**0.78**					
SN5						**0.74**					
Mobile Marketing Adoption	**Eigen Value is: 2.49**										

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
MMD1							**0.80**				
MMD2							**0.73**				
MMD3							**0.78**				
MMD4							***Del.***				
MMD5							**0.77**				
MMD6							**0.74**				
Perceived Usefulness	**Eigen Value is: 2.39**										
PU1								**0.78**			
PU2								**0.81**			
PU3								**0.57**			
PU4								**0.83**			
PU5								**0.63**			
Entertainment	**Eigen Value is: 2.19**										
EN1									**0.78**		
EN2									**0.82**		
EN3									**0.82**		
EN4									**0.74**		
Mobile Marketing Acceptance											
Dimension 1	**Eigen Value is: 1.53**										
MMA3										**0.68**	
MMA4										**0.74**	
MMA5										**0.69**	
MMA6										***Del.***	
Dimension 2	**Eigen Value is: 1.10**										
MMA1											**0.75**
MMA2											**0.60**
MMA7											**0.77**

Confirmatory Factors Analysis (CFA)

To assess the CFA, goodness of measurement model fit using SEM were shown in Table (5), (Chau, 1997, p.318). To confirm and validate the findings that emerged from using EFA, the eleven factors model was evaluated by CFA using EQS 6.1 software.

As can be seen in Table (5) CFI is 0.88 which is less than the cut-off point, 0.90, however this is acceptable in exploratory research (Hair et al., 1998). Table (5) shows five items were deleted during the CFA analysis due to weak factor loadings. The items were SN1 (social norms), MMD6 (mobile marketing acceptance), PU3 and PU5 (perceived usefulness), and EN4 (entertainment).Table (5) shows that the results emerged from CFA support the findings that emerged from EFA and all items loadings well exceeded the cut-off point value; 0.60.

Convergent validity is examined by the fact that all factor loadings are significant and that the scales exhibit high levels of internal consistency (Fornell and Larcker, 1981; Gerbing and Anderson, 1988). Also, as shown in Table (5), the values of composite reliability are above the threshold suggested by (Bagozzi, 1980): 0.70. Furthermore, the absence of significant cross loading is also an evidence of constructs unidimensionality, (Gerbing and Anderson, 1988).

Table (6) Confirmatory Factor Analysis Results

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
Privacy											
PR1	**0.78**										
PR2	**0.86**										
PR3	**0.89**										
PR4	**0.93**										
PR5	**0.93**										
Customization											
CU1		**0.82**									
CU2		**0.87**									
CU3		**0.88**									
CU4		**0.84**									
CU5		**0.83**									
Perceived Ease of Use											
PEU1			**0.62**								
PEU2			**0.74**								
PEU3			**0.85**								
PEU4			**0.80**								
PEU5			**0.72**								
Content											
CO1				**0.81**							
CO2				**0.88**							
CO3				**0.91**							
CO4				**0.89**							
Credibility											
CR1					**0.78**						
CR2					**0.92**						
CR3					**0.93**						
CR4					**0.82**						
Social Norms											
SN1						***Del.***					
SN2						**0.60**					
SN3						**0.68**					
SN4						**0.84**					
SN5						**0.80**					
Mobile Marketing Adoption											
MMD1							**0.82**				
MMD2							**0.71**				
MMD3							**0.64**				
MMD5							**0.68**				
MMD6							***Del.***				
Perceived Usefulness											
PU1								**0.81**			
PU2								**0.80**			
PU3								***Del.***			

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
PU4								**0.70**			
PU5								***Del.***			
Entertainment	**Eigen Value is: 2.19**										
EN1									**0.77**		
EN2									**0.75**		
EN3									**0.74**		
EN4									***Del.***		
Mobile Marketing Acceptance											
Dimension 1											
MMA3										**0.67**	
MMA4										**0.69**	
MMA5										**0.68**	
Dimension 2											
MMA1											**0.80**
MMA2											**0.68**
MMA7											**0.62**

Table (7) Variables Composite Reliability

NO.	Variables	Composite Reliability Results	Composite Reliability Equation
1	**Privacy**	0.94	**Composite Reliability = Squared Total Factor Loadings / Squared Total Factor Loadings + Random Measurement Error**
2	**Customization**	0.91	
3	**Perceived Ease of Use**	0.92	
4	**Content**	0.85	
5	**Credibility**	0.91	
6	**Social Norms**	0.77	
7	**Mobile Marketing Adoption**	0.73	
8	**Perceived Usefulness**	0.82	
9	**Entertainment**	0.70	
10	**Mobile Marketing Acceptance: Dimension 1**	0.81	
11	**Mobile Marketing Acceptance: Dimension 2**	0.83	***Note: Composite Reliability Cut-Off Point is 0.70***

Structural Model and Hypotheses Testing

The analysis of the research model is conducted by one model of structural path analysis which is shown in Figure (2). The analysis began by creating direct paths from each of perceived ease of use, perceived usefulness, social norms, entertainment, credibility, content, customization, and privacy to mobile marketing acceptance and a direct path was also run from the later to mobile marketing adoption. Table (8) shows the structural path results. The results show that the research hypotheses $H0_1$-$H0_7$ are rejected and the alternate hypotheses are accepted. Hypotheses $H0_8$ and $H0_9$ and are accepted. The results show that hypotheses Ha_1, Ha_3, Ha_6, and Ha_7 have a negative and significant effect on mobile marketing acceptance. Meanwhile, hypotheses Ha_2, Ha_4, and Ha_5 have a positive and significant effect on mobile marketing acceptance. Hypotheses $H0_8$ and $H0_9$ have a non-significant effect on mobile marketing acceptance but their effect is still positive. The structural findings also show that mobile marketing acceptance has a

positive and non-significant effect on mobile marketing adoption rejecting Ha_9 supporting hypothesis $H0_9$. Also, $H0_{10}$ is accepted indicating that there is no mediation effect for mobile marketing acceptance on the relationship between factors affecting mobile marketing acceptance and mobile marketing adoption.

Figure (2): The Structural Path Model

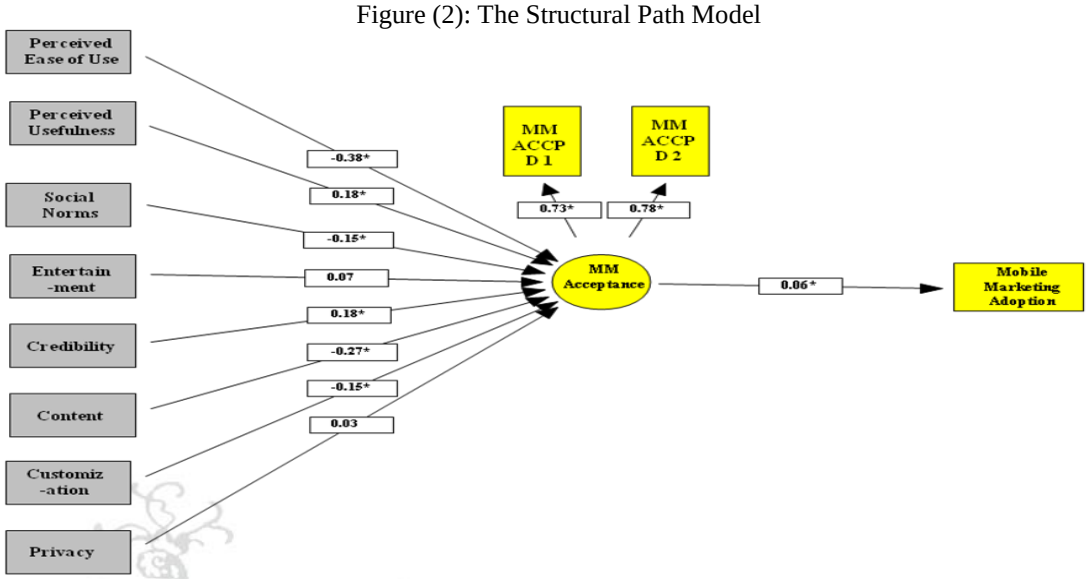

Table (8) Structural Path Model Results

Hypotheses	Variables in the paths model	β*	T- Value**	Results
H_1	Perceived ease of use and mobile marketing acceptance	*-0.38*	*7.59***	Negative and significant effect
H_2	Perceived usefulness and mobile marketing acceptance	0.18	5.83**	Positive and significant effect
H_3	Social norms and mobile marketing acceptance	*-0.15*	*4.51***	Negative and significant effect
H_4	Entertainmentand mobile marketing acceptance	0.07	2.43**	Positive and significant effect
H_5	Credibility and mobile marketing acceptance	0.18	5.14**	Positive and significant effect
H_6	Content and mobile marketing acceptance	*-0.27*	*3.30***	Negative and significant effect
H_7	Customization and mobile marketing acceptance	*-0.15*	*4.96***	Negative and significant effect
H_8	Privacy and mobile marketing acceptance	0.03	1.14	Positive and non-significant effect
H_9	Mobile marketing acceptance and mobile marketing adoption	0.06	1.92	Positive and non-significant effect
H_{10}	The mediation effect of MMA on the relationship between factors affecting MMAand MMD	Since MMA is NOT significantly related to MMD testing for mediation is not applicable		No mediation effect exists

***Standardized Beta Coefficients. ** Significant at P < 0.05**

Hypotheses Testing and Conclusions

$H0_1$: There is no significant effect of perceived ease of use on mobile marketing acceptance.

The structural findings *(B = 0.38, -t = 7.59)* indicate that perceived ease of use exerted a negative and significant effect on mobile marketing acceptance. Consequently, H01 is rejected and Ha1 is accepted. This result is not consistent with previous literature review (Davis, 1989; Luarn and Lin, 2005; Venkatesh and Davis, 1996, 2000; Wang and Liao, 2007, Kwon and Chidambaram, 2000; Nysveen et al., 2005; Pagani, 2004). So, companies should find easier ways to motivate consumers to use their mobiles as a device for marketing transaction.

$H0_2$: There is no significant effect of perceived usefulness on mobile marketing acceptance.

The structural findings *(B = 0.18, t = 5.83)* indicate that perceived usefulness exerted a positive and significant effect on mobile marketing acceptance. Consequently, H02 is rejected and Ha2 is accepted. This result is consistent with previous literature review (Cheong and Park, 2005; Nysveen et al., 2005; Lu and Su, 2009) which advocated that perceived usefulness has a positive effect on mobile marketing acceptance.

$H0_3$: There is no significant effect of social norms on mobile marketing acceptance.

The structural findings *(B = 0.15, -t = 4.51)* indicate that social norms exerted a negative and significant effect on mobile marketing acceptance. Consequently, H03 is rejected and Ha3 is accepted. This result is not consistent with previous literature review (Karahana and Limayem, 2000; Chan and Lu, 2004; Lu et al., 2009) which advocated that subjective norms have a positive effect on mobile marketing acceptance.

$H0_4$: There is no significant effect of entertainment on mobile marketing acceptance

The structural findings *(B = 0.07, t = 2.43)* indicate that entertainment exerted a positive and significant effect on mobile marketing acceptance. Consequently, H04 is rejected and Ha4 is accepted. This result is consistent with previous literature review (Shavitt et al., 1998; Tsang et al., 2004; Haghirian and Madlberger, 2005; Bauer et al., 2005; and Xu and Guitierrez, 2006;) which advocated that entertainment has a positive effect on mobile marketing acceptance, but (Jun and Lee, 2007) did not.

$H0_5$: There is no significant effect of credibility on mobile marketing acceptance

The structural findings *(B = 0.18, t = 5.14)* indicate that credibility exerted a positive and significant effect on mobile marketing acceptance. Consequently, H05 is rejected and Ha5 is accepted. This result is consistent with previous literature review (Pavlou and Stewart, 2000; Haghirian and Madlberger, 2005) which advocated that entertainment has a positive effect on mobile marketing acceptance.

$H0_6$: There is no significant effect of content on mobile marketing acceptance.
The structural findings *(B = 0.27, -t = 3.30)* indicate that content exerted a negative and significant effect on mobile marketing acceptance. Consequently, H06 is rejected and Ha6 is accepted. Therefore, the message should be kept short and the use of graphics or photos should be encouraged (Edens and McCormick, 2000). Humor and surprises in the design of the advertisement create positive feelings toward the advertisement and may lead to viral marketing, especially among younger receivers (Barwise and Strong, 2002). Consequently, content is very crucial to attract consumer attention (Scharl et al., 2004). Most consumers who read mobile advertising want to obtain information (Tsang et al., 2004). Jordanian customers may be receiving many irrelevant messages with inappropriate contents which indicate that companies in Jordan may have a market segmentation problem.

$H0_7$: There is no significant effect of customization on mobile marketing acceptance

The structural findings *(B = 0.15, -t = 4.94)* indicate that customization exerted a negative and significant effect and on mobile marketing acceptance. Consequently, H07 is rejected and Ha7 is accepted. This finding does not agree with customization literature that says customization is one of the potential factors affecting mobile marketing acceptance. Consumers consider mobile devices to be very personal (Clarke, 2001). Therefore, customizing or personalizing the message sent to each individual consumer may create a positive impression and lead to trust between consumers and marketers (Xu and Gutierrez, 2006). Therefore, companies' messages should be highly customized and personalized to be consistent with the mobile concept itself which is "highly individualized and private".

$H0_8$: There is no significant effect of privacy on mobile marketing acceptance.

The structural findings *(B = 0.03, t = 1.14)* indicate that privacy exerted a positive and non-significant effect and on mobile marketing acceptance. Consequently, H08 is accepted and Ha8 is rejected. This result is consistent with previous literature review that says privacy is an important factor affecting mobile marketing acceptance (Krishnamurthy, 2001; Murphy et al., 2002; Barwise and Strong, 2002; Kent and Brandal, 2003).

$H0_9$: There is no significant effect of mobile marketing acceptance on mobile marketing adoption.

The structural findings *(B = 0.06, t = 1.92)* indicate that mobile marketing acceptance exerted a positive but non-significant effect and on mobile marketing adoption. Consequently, H09 is accepted and Ha9 is rejected. This result is not consistent with previous literature review that says mobile marketing acceptance leads to mobile marketing adoption. These findings are consistent with literature review that says that customers are willing to accept technology but not necessarily have adoptive behavior to have marketing transactions in the virtual markets (Nysveen et al., 2005). Consequently, mobile marketing adoption is the main outcome of a number of factors affecting mobile marketing acceptance and the later leads to mobile marketing adoption.

$H0_{10}$: There is no mediation effect for mobile marketing acceptance on the relationship between factors affecting mobile marketing acceptance and mobile marketing adoption.

According to Baron and Kenny (1986), mobile marketing acceptance is a mediating variable if four conditions are satisfied: First: There is a significant relationship between factors affecting mobile marketing acceptance and mobile marketing adoption. Second: There is a significant relationship between each of the factors affecting mobile marketing acceptance and mobile marketing acceptance. Third: There is a significant relationship between mobile marketing acceptance and mobile marketing adoption. Fourth: The relationship between factors affecting mobile marketing acceptance and mobile marketing adoption is reduced when controlling mobile marketing acceptance.

As shown in Figure (7), the SEM empirical model findings indicate that mobile marketing acceptance exerted a positive but non-significant *(B = 0.06, t = 1.92)* effect on mobile marketing adoption. Based on Baron and Kenny (1986) methodology, the third condition of the mediation theory is violated indicating that there is no further mediation analysis could be conducted and the researcher must comply with theory. Consequently, hypothesis $H0_{10}$ is accepted indicating that there is no mediation effect for mobile marketing acceptance on the relationships between factors affecting mobile marketing acceptance and mobile marketing adoption. Further, privacy has a non-significant effect on mobile marketing acceptance *(B = 0.03, t = 1.14)* then $H0_8$ is accepted. This is a clear violation of the second condition of the mediation theory (Baron and Kenny, 1986). Consequently, mobile marketing acceptance is a positive driver of mobile marketing adoption but it seems to be that other factors are more important that may lead to mobile marketing adoption.

$H0_{11}$: There are no significant differences in mobile marketing acceptance due to differences in customers' demographic factors (type of customer prescription, gender, age, education level, income level, and education).

Table (9) shows the results of ANOVA test results. ANOVA results indicate that type of customer subscription is the only (F= 4.83, Sig at 0.028) factor among the customers' demographic factors that have a significant difference in mobile marketing acceptance. A possible interpretation is that customers with prepaid card, which is the main trend in mobile companies, might be willing to accept mobile marketing transactions since they can control their mobile cards and payments. The other factors have no significant differences in mobile marketing acceptance. This result is consistent with previous literature especially the technology acceptance models since mobile marketing is, generally speaking, accepted as "concept" regardless of other customers' demographics.

$H0_{12}$: There are no significant differences in mobile marketing adoption due to differences in customers' demographic factors (type of customer prescription, gender, age, education level, income level, and education).

Table (9) shows the results of ANOVA test results. ANOVA results indicate that type of customer subscription (F= 7.71, Sig at 0.006) and customer gender (F= 9.55, Sig at 0.002) are the only two factors among the customers' demographic factors that have a significant difference in mobile marketing adoption. These findings are also consistent with the literature review that says that customers with prepaid cards can control their payments and may adopt certain marketing transactions based on selective shopping behavior e.g., specific companies and brand.

Table (9) Hypotheses H11 and H12: Mobile Marketing Acceptance and Adoption ANOVA Test

Hypothesis 11	**Demographic Variables**	**F-Value**	***Significance**	**Results**
	Mobile Marketing Acceptance			
	Type of customer subscription	4.83	0.028*	Accepted
	Customer gender	3.81	0.051	Rejected
	Customer age	0.36	0.835	Rejected
	Customer educational level	0.97	0.424	Rejected
	Customer income level	1.12	0.348	Rejected
	Customer occupation	0.507	0.677	Rejected
Hypothesis 12	**Mobile Marketing adoption**			
	Type of customer subscription	7.71	0.006	Accepted
	Customer gender	9.55	0.002	Accepted
	Customer age	2.09	0.079	Rejected
	Customer educational level	1.28	0.275	Rejected
	Customer income level	1.49	0.191	Rejected
	Customer occupation	1.29	0.278	Rejected
*** Significant at P < 0.05**				

For the gender findings, these results are supportive to the literature with focus on the research of (Nysveen et al., 2005) who explored just how gender moderates the intention to use mobile chat services. Their results show that social norms and intrinsic motives such as enjoyment are important determinants of intention to use mobile services for female users. Extrinsic motives such as usefulness and, surprisingly, expressiveness, were found to be the key factors for intention to use mobile chat services among male users. Ease of use and attitudes did not have different effects across genders. Statistics show that there is a significant variation in the use of mobile services concerning age.

More young people are using mobile services, and so the average age of mobile phone and mobile service users is decreasing. The usage pattern between men and women differs too. Hence, gender might be a determining factor for mobile marketing adoption due to significant differences in customers' needs. The other factors have no significant differences in mobile marketing adoption. This result is consistent with previous literature especially the technology adoption models since mobile marketing is, generally speaking, adopted as "concept" regardless of other customers' demographics.

Recommendations

Managers may give the first priority in their marketing efforts to factors that have the strongest negative effects on mobile marketing acceptance. These factors are perceived ease of use, content, customization, and social norms, respectively; managers may improve all factors affecting mobile marketing acceptance which lead to mobile marketing adoption. Customers are still hesitant to adopt mobile marketing due to several factors the most of which are privacy and security.

Moreover, managers may conduct market research in order to shed lights on the factors that may affect the relationship between mobile marketing acceptance and mobile marketing adoption. This would enable managers to increase the potential of mobile marketing adoption in Jordan. Finally, mnagers may use customers' demographics such as gender, educational level, income, type of subscription and others that are important to practice mobile market segmentation properly. These characteristics reflect needs and intentions to use mobiles for marketing transactions. Customer relationship management is an important tool for this purpose.

Future Research

Future research may investigate others factors affecting mobile marketing acceptance and adoption especially in developing countries business environments, Jordan. Moreover, examine why mobile marketing practice is still weak; cultural, business and marketing factors may be investigated.

The results indicated that perceived ease of use, social norms, content and customization have a negative and significant effect on mobile marketing acceptance. An important area of future research is to investigate why their effect is negative and under what circumstances their effect may be positive; qualitative and quantitative methodologies are needed in this context. As well as, findings indicated that mobile marketing acceptance has a non-significant positive effect on mobile marketing adoption. This area may be investigated in future research efforts to find out why this relationship is weak and non-significant and under what conditions it may exist.

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