

The Impact of Mobile Advertisement Services on Consumer Attitudes Among Jordanian User's: Empirical Study

Malek Mohammad Al-Majali *

Amin Ayed Bashabsheh

Abstract

This study aims at examining factors influencing the Jordanian consumers' attitudes toward mobile advertisements. Five hundred questionnaires were distributed to the respondents only four hundred and thirty two datasets were valid for final analysis, using SPSS v18 and AMOS v 8 for conducting several tests. The results also indicate that all the model variables have acceptable reliability and composite reliability value, and all the items of the constructs have acceptable factors loading. Moreover, the validity test insures that variables of this study achieve the acceptance indicators which mean that all variables are valid. In addition, hypothesis test shows that all the direct hypothesis were accepted expect one, however, irritation variables were found to have negative effect on consumers' attitudes. While other variables found to have positive and significant influence on consumers' attitudes toward mobile advertisements. The highest weight was for personalization to be the most important factor influence on consumers' attitudes, following by credibility, informativeness and entertainment continually.

Keywords: Mobile advertisements, personalization credibility, informativeness, entertainment and irritation.

• كلية إدارة الأعمال، جامعة مؤتة.

تاريخ قبول البحث: 2017/8/7م.

تاريخ تقديم البحث: 2016/7/31م.

© جميع حقوق النشر محفوظة لجامعة مؤتة، الكرك، المملكة الأردنية الهاشمية، 2018.

أثر خدمات اعلانات الهواتف الخلوية على اتجاهات العملاء للمستخدمين الاردنيين:

دراسة تطبيقية

مالك محمد المجالي

أمين عايد البشابشة

ملخص

تهدف هذه الدراسة إلى اختبار التأثير المباشر لخمسة عوامل اتجاهات العملاء نحو تكنولوجيا إعلانات الهواتف النقالة. أربعمئة وثلاث وعشرون (423) من خمسمئة (500) استبانة كانت صالحة للتحليل النهائي، باستخدام برمجية (SPSS v18 and AMOS v 8) لإجراء عدة اختبارات إحصائية. تشير نتائج هذه الدراسة إلى أنه تم قبول أربعة فرضيات مباشرة. الوزن التأثيري الأعلى لعامل التشخيص ليكون أهم عامل مؤثر على اتجاهات العملاء، متبوعاً بعامل المصادقية والمعلوماتية والتسلية على التوالي وأن فرضية الإزعاج لها تأثير سلبي على اتجاهات العملاء.

الكلمات الدالة: اتجاهات العملاء، التخصيص، المصادقية، المعلوماتية، التسلية، الإزعاج، اعلانات الهواتف النقالة.

Introduction:

In the past ten years, Information Technology Communications (ICT) sector in Jordan had witnessed many rapid developments, which came in response to the tremendous technological revolutions that took place in the world as a whole. These developments have emerged through clear efforts in many sectors such as education, tourism, health and communications.

Accordingly, the Ministry of Communications and Information Technology of Jordan pursue these developments, through the effective investment of available resources in the Jordanian environment, ensuring that the necessary infrastructure to work in the field of communications, providing the necessary support for companies that provide communication services, developing clear strategies and governing the work of this sector to create, which will return the common benefit of service providers and clients at the same time. Through these actual steps, the cellular communications companies in Jordan tried to do a set of processes to improve service levels for getting market shares among them. However, the number of users of telecommunication services in Jordan is about 10,690,000 divided into four companies are Zain, Orange, Umniah and Friendi (virtual operator). During the second quarter of this year (TRC, 2015). Zain was ranked first in the number of mobile phone active subscriptions in the "second quarter 2014" with a total of about 4.14 million subscriptions. Orange Jordan came in second place in the number of subscriptions of mobile phones with 3.29 million subscriptions. Umniah was ranked third with 3.185 million subscriptions. The fourth place in the number of subscriptions in Jordan is for Friendi company, a "virtual operator" with 72, 300 subscription.

These companies seek to provide consumers with the best communication services and many of the associated services such as the Internet, games, and contests, educational and other services. Telecom companies also play a big role in promotional campaigns for companies through advertisements messages. Telecommunications companies are sending messages to the customers to introduce, convince and encourage them to buy products and services for those advertisers. A lot of these companies rely on this method to deliver promotional messages about their products and services to the largest possible number of consumers in lower costs and shorter times. This method may be useful trades of companies. But what about the consumers: Do they like it, or not? Do they read it, or

not? Do they react to it, or not? Do they delete it, or not? To answer for all this inquiries, this study aims at investigating these factors affecting consumers' attitude toward mobile advertisements in Jordan.

Problem of the study

Using of mobile services had increased dramatically since 2001 (Kearney, 2002). However, mobile advertisements become more important than traditional advertisements (TV, Radio, Magazines and newspapers), because traditional advertising designed to create a target group. Mobile advertisements are designed to target individuals (Salo and Tähtinen, 2005). In other words, more than half phone users are influenced by mobile advertisements (Vallina, 2012). Due to the massive usage of mobile phones in Jordan, with such great penetration rate of mobile phone subscriptions with penetration rate around 142%, it worth for the Jordanian company to utilize the mobile advertisements activities among mobile phone users at any time. The growth of mobile advertisements has opened a new area for researches and because there unclear image how consumers feel about mobile advertisements messages on their mobile phones and how their attitudes influenced their actual behavior. We observe that necessary to carry out the study on the factors influencing consumer attitudes towards mobile advertisements in Jordan. However, there are several studies of mobile advertisements were conducted in many countries (Europe, USA and China...), while there has been few research in this aspect in Jordan (Zabadi et al.,2012). Therefore, this topic need more investigation and discussion to discover the most influencing factors on consumers attitudes toward mobile advertisements in Jordan, and to point out the relationship between these factors and the consumers' attitudes toward such services. Hence, this study aims at filling the literature gap by examining the factors and investigating consumers' attitudes toward mobile advertisements as promotion tool which are used by the advertiser companies.

Questions of the study

In order to know the mobile advertisements users profile in Jordan and to investigate the most factors influencing on Jordanian customers attitude toward mobile advertising, this study is addressing study questions as follows:

- What is the mobile advertisements users profile in Jordan?
- What is the influence of informativeness on consumers' attitudes toward mobile advertisements in Jordan?
- What is the influence of credibility on consumers' attitudes toward mobile advertisements in Jordan?
- What is the influence of personalization on consumers' attitudes toward mobile advertisements in Jordan?
- What is the influence of Irritation on consumers' attitudes toward mobile advertisements in Jordan?
- What is the influence of entertainment on consumers' attitudes toward mobile advertisements in Jordan?

Objectives of the study

This study aims at investigating the most factors influencing consumers' attitudes toward mobile advertisements in Jordan. Consequently, the objectives are as follows:

- To determine the mobile advertisements users profile in Jordan.
- To investigate the effect of informativniess on consumers' attitudes toward mobile advertisements in Jordan.
- To investigate the effect of credibility on consumers' attitudes toward mobile advertisements in Jordan.
- To investigate the effect of personalization on consumers attitudes toward mobile advertisements in Jordan.
- To investigate the effect of Irritation on consumers attitudes toward mobile advertisements in Jordan.
- To investigate the effect of entertainment on consumers attitudes toward mobile advertisements in Jordan.

Significant of the study:

We expect this study will be useful for both academics and practitioners. As for academics, this study aims at drawing a general perception through a sample study on the status of mobile advertisements in Jordan. It also aims at identifying the factors affecting consumers' attitudes toward mobile advertisements in Jordan, through discussion and reviewing of previous studies, and trying to identify these factors and tested them through developing a model specially designed to achieve the objectives of this study. As for the practitioners, this study attempts to highlight the importance of the factors that the advertisers must take into consideration, with regard to the mobile advertisements by adopting appropriate promotional strategies that improve the levels of customer messages, display, receive and achieve their goals , and to stay away from issues that would reduce the customers ' interests in these messages.

Limitation of study:

This study faces some limitations which could create opportunities for future research. Firstly, considering the sample size by increasing the sample size to be more generalized, and select another type from the different consumers. Secondly, this study examine only five constructs, the further research could examine other factors influencing consumers' attitude such as consumers personality and cultural dimensions or social factors. Thirdly, this study depends on qualitative research, on only one instrument, a questionnaire survey. Therefore, the qualitative method - in-depth interview - could be an appropriate method to discover other factors that could influence consumers' attitude toward mobile advertising.

Mobile Advertisements Technology:

Mobile advertisements is a modern technique, used by commercial companies in order to promote their products and services using a mobile phone, because of its features and specifications of where appropriate, price and harmony. However, the mobile advertisements has several definition, for instance, Yunos et al., (2003) defined mobile advertisements as “marketing and advertising activities that deliver advertisements to mobile

devices using wireless network and mobile advertisements solutions to promote goods and services and build brand awareness". While Leppaniemi et al (2005) defined mobile advertisements as "any paid message communicated by mobile media with the intent to influence the attitudes, intentions and behavior of those addressed by the commercial messages". Yang (2007) defined the mobile advertisements as "the transmission of advertising via a mobile device". Also Li et, all (2007) defined the mobile advertisements as "the transmission of a message related to products, services and opinions for promotional purposes via mobile devices". While mobile advertisements is expressed as the presentation of a product, service or ideas with personalized information to the target group by using mobile means of communication (Saadeghvaziri & Hosseini, 2011).

The mobile advertisements start initially with short message advertising sent from the advertising companies to the public audience. This type was limited of creativity, because it has only 169 characters. Then the multimedia messaging was found and used as a tool for mobile campaigns which includes some photo and voice to be more effective (Li et,all 2007). After that mobile advertisements are applied in business arena and they have good reputation in interpersonal communication because it provides message exchange for users of any age group in their social and business relations (Carroll, et al., 2014).

Mobile advertisements are divided into three main categories: push, pull and dialogue (Jelassi & Enders, 2004). First type is called as Mobile Push campaigns. In this type companies have a database that includes all the details and information about the targeted audience because the push advertising messages are delivered proactively to mobile device users. Also the companies have to use this approach carefully for the targeted groups to enhance the audience responses. Because the user's perception is important, the companies have to look for permission of consumers to receive wireless advertising, because the push campaigns need a database including details of the customers. However, the companies using this type can send their messages only for those how are very interested in their offers which can save the companies budget , effort and time to make their message more effective (Leppaniemi et all et al, 2005). The second type called as Mobile Pull campaigns. In this type the companies send their message based on the customers orders or their inquiries for getting specific information from the advertising company. The advertiser in this type uses the different media mix (TV, radio, internet, newspaper, and magazine) to encourage mobile

campaign using or viewing by the customers. However the customers can request the information via their mobile phone. So, using this type the companies and the services provider could achieve the profit for through conducting this campaign. (Haig,2002). In this type, the most important benefit is receiving information equal to required information, and the spam message mostly defected (Leppaniemi & Karjaluto, 2005). The third type is Mobile Dialogue campaigns. In this type the interactivity element is very effective, which led the advertiser to build the relationship with customers. However this type retains the customers and sends the information that is highly relevant for them like birthday of customers which can then be used in sending personal birthday greetings at right time. The extensive customers' information allows the advertiser to distribute mobile coupons, for example, to offer new products or carry out market research about one fashion.

Mobile advertisements are branded content sent to mobile devices by advertisers and accessed by consumers. However, it has many characteristics which emerging media had used to deliver digital texts, voices, videos and image with interactive, direct, modified, and reactive capabilities (Kim & Yoon, 2001). Moreover, the mobile phone allows individuals and groups to be accessed virtually conveniently (Location-Based Advertising) because it is considered a very personal device. Also the mobile advertisements must be more personalized and might take different forms that are sent based on what the customers want and need (Zoller, Housen & Matthews). In addition, the mobile advertisements provide several options for applying advertising campaigns. For instance, MMS messaging allows the marketer to send the animations to selected target groups. However, mobile advertisements have been used diffidently in marketing activities (Nysveen, et all, 2005). Furthermore, it is worth mentioning that the mobile advertisements are different from traditional advertising, the mobile advertisements as mentioned before are interactive, cheap, rapid, individual, easy and effective interaction is provided among consumers and companies (Chowdhury,et, al, 2006). Therefore, consumers can easily get information they are interested in. Companies believe that mobile advertisements as a part of integrative marketing communication strategy (Ünal, Ercis & Keser, 2011). However, in some countries, it is necessary to get the approval of consumers before sending messages for mobile advertisements applications (Altuna& Konuk, 2009).

Attitudes toward Mobile Advertisements :

According to Fishbein and Ajzen (1980) attitude is one the most important concept in humanities studies. Therefore, this concept was defined as “a learned predisposition of human beings”. While Kotler and Zaltman defined an attitude as “an attitude is a person’s enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea”. (Kotler& Zaltman, 1971) Also attitude is considered the most important factor as showed in technology acceptance model theory which has five main constructs including attitude (Davis, 1989). In this study, consumers' attitudes toward mobile advertisements underlie a learned predilection to respond in a consistently favorable or unfavorable. Hence, this study aims at identifying the consumers' attitudes toward mobile advertisements by identifying the levels of positive or negative sentiment owned by customers, which will affect the level of acceptance and harmony this kind of mobile advertisements. It is necessary to identify those factors that affecting consumers attitudes towards this technology, with the fact that the consumers attitudes is the main driver of the behavioral process that leads to the practice of actual behavior (Fishbein & Ajzen,1980).

Informativeness of Mobile Advertisements:

Ducoffe (1996) stated that Informativeness is a important factors influence on consumers attitudes toward mobile advertisements, which defined as “the ability of advertising to inform consumers of product alternatives so that purchases yielding the greatest possible satisfaction can be made” (Ducoffe, 1996). Informativeness provide the consumers with useful or interesting information, and includes a sours of information toward the products, the ability to supply relevant product information also provide the necessary information which is up-to-date (Bracket & Carr, 2001). Informativeness concept by including specific information will lead to improve the consumers interested in the advertisements (Fernandez & Rosen, 2000). Therefore, the advertisers car about this concept which reflect the quality of information that directly influencing on the customers’ attitudes toward the company’s products. However, Informativeness is considered a very important motivation in mobile advertisements because consumers respond in positive ways to the ads (Heo &Varshney, 2003). In

other word, ability of mobile advertisements to deliver the right information to consumers in order to satisfy their want and could needs could interrupt by the Informativeness (Tsang, 2004). Hence, Informativeness can be seen as a major factor for the mobile advertisements to be received by consumers (Wong & Tang, 2008). And mobile advertisements can affect consumer satisfaction then affecting on their buying decisions (Ducoffe, 1996), Therefore, information that is sent to consumers via mobile devices must be right, convenience, and enhance the provide gains to consumers (Xu, Liao & Li, 2008), because it increase the rate of accepting of this type of ads (Ducoffe, 1996).

Credibility of Mobile Advertisements:

Credibility in mobile advertisements was defined by (Mackenzie & Lutz, 1989), as “the extent to which the consumer perceives claims made about the brand in the ad (advertisement) to be truthful and believable”, and defined as “consumers’ perceptions of the truthfulness and believability of advertising in general” (Lin, 2007). Whereas Stewart (2003) referred it to “predictability and fulfillment of implicit and explicit requirements of an agreement”. The credibility dimension is very important for the consumers because it reflects of the perception of an advertising which being true and the information provided being one that can be trusted (Lafferty, Goldsmith & Newell, 2002). Credibility of mobile advertisements is generally the perception related to rightness and reliability of an advertisement by consumers. Hence this factor has a positive effect on the attitudes of consumers towards mobile advertisements (Micu & Chowdhury, 2010). This result similar to Al Khasawneh and Shuhaiber (2013) which indicate that credibility has a direct positive and significant influence on consumer attitudes towards mobile advertisements. Moreover, the credibility influencing consumers’ attitudes by the advertising medium that is used to send the advertisement. For instance, Yang, et al (2007) indicated that the mobile advertisements have less credibility than a traditional printed message unless the message is communicated to have a strong brand. Several past studies found that credibility have positive and significant influence on consumers attitudes toward mobile advertisements, these studies belonged to (Waldt et al, 2009; Chowdhury et al, 2010; Daugherty et al, 2008) and others.

Personalization of Mobile Advertisements

Personalization feature is used by the marketers to attain their target consumers individually for enhancing their relationships with them (Bauer et al., 2005). Sending personalized text messages through the mobile are more related to consumers than non-personalized messages, because the personalization is able to provide consumers correct information and give out their personalized needs (Saadeghvaziri & Seyedjavadin, 2011). Personalization construct defined as “understanding the different kinds of individual preferences, needs and lifestyle of consumers and providing a product or service that satisfies that single need” (Riecken, 2000). Therefore, a personalized feature aims at creating and building strong customer relationships and to encourage them to be in touch with the organizations (Riecken, 2000). However, the organizations collect the database about the consumers from different sources and send the advertisements through mobile devices, which allow consumers to react on the advertisements directly (Lee & Benbasat, 2003). Such personalization helps both parts (organizations and consumers) to reduce the likelihood of a negative reaction (Bauer et al., 2005). So the mobile devices become a crucial point in the delivering the message one to one, which are interactive, because this technology help the advertiser to customize and personalize the information to reach the target group profitably (Balasubramanian et al., 2002). Mobile advertisements may be simply personalized by priorities of consumers, time, and geographical location and as written, audio and visual. For instance, mobile advertisements can send to different consumers, different location, and different need and with different contents (Saadeghvaziri & Hosseini, 2011). In addition, personalization in many of past studies had a positive and significant influence on consumers' attitudes toward mobile advertisements such as (Xu, Liao & Li, 2008; Scharl et al, 2005; Saadeghvaziri & Hosseini, 2011, El-Garhi & Ericsson 2014).

Irritation of Mobile Advertisements:

Ducoffe (1996) defined the irritation as “the state of feeling annoyed, impatient, or slightly angry” or “When advertising employs tactics that annoy, offend, insult, or are overly manipulative”. This tactics sometimes annoy consumers and affects negatively their attitudes towards the advertisement (Saadeghvaziri & Hosseini, 2011). The irritation could happen when no permission is required, or the information is received

regularly or when consumers perceive the advertising to be scheming (Tsang, 2004). Also mobile advertisements can give some of information that puzzle the consumers and may be disturbing and irresistible the consumer with information (Stewart, 2002). Therefore, the consumers feel confused about them and respond negatively. Moreover, the irritation can happen when the message come as incomprehensive or unwanted advertising. Hence the consumers will react in unlikely or negatively on the mobile advertisements (Brackett & Carr, 2002). So the irritation is a negative dimension of consumer attitudes towards mobile advertisements (Altuna, 2009). The irritation discussed in The Theory of Psychological Reactance (TPR) which showed that consumers react negatively if they perceive their freedom to choose is threatened (Zabadi et al, 2012). Therefore, Consumers who feel they are misled in this aspect have negative attitude toward mobile advertisements (Xu, Liao & Li, 2008). However the mobile advertisements are less irritating than the traditional advertising, because of the interactivity element shown. And it makes the consumers satisfy their needs by getting the information they need (Schollosser, Shavitt, & Kanfer, 1999). In this respect, several previous studies reported that irritation influences negatively on consumers' attitudes toward mobile advertisements and they found a negative correlation between consumers' perceptions of irritation and their attitudes towards mobile advertisements (Tsang, 2004; Zabadi et al, 2012; El-Garhi, 2014).

Entertainment of Mobile Advertisements:

In general consumers like advertisements that include entertainment which refers to the enjoyment of the message (Xu, Liao & Li, 2008). Ducoffe (1996) defined entertainment as "the ability to provide for an expectant audience or an individual an aesthetic enjoyment or motional pleasure that can provide a certain level of satisfaction to the individual or group". However, most of past studies on consumers' attitudes toward mobile advertisements showed that the majority of respondents prefer it with interesting aspect, as humor easily attracts consumers. The entertainment tools include like games, visuals applications and music (Altuna, Konuk & Faruk 2009). These attributes can be used to engage consumers more extremely and make them more recognizable with the advertisements toward the organization services or products (Xu, 2007). Haghirian and Madlberger (2005) showed that the fun part of entertainment helps the marketers to attract the consumers and capture their attention by

having an opportunity immediately. In addition, Xu (2007) indicate that entertainment factor is one of the important factors that influences consumers attitudes toward mobile advertisements, because it is vital for a message to be short, snappy, funny, of human nature and entertaining. Also the mobile advertisements that have some games and prizes sent to target groups are considered to be a good way applied to attract customers and their satisfaction (Chowdhury, 2006). Wong et al (2008) stated that entertainment value of mobile advertisements is accepted for the consumers to be one of the most important factors influencing their attitudes towards this advertisement. supporting this statement Tsang et al. (2004) showed that entertainment concept is a significant factor for consumers' attitudes toward mobile advertising. Correspondingly, there are several past studies related (Brackett, 2001; Bauer, 2005; El-Garhi, 2014) found that entertainment is a main determinant of consumers' attitudes towards mobile advertisements.

Model and hypotheses development:

Model of this study had been adapted from past studies relevant to area of this research related to (Chowdhury, et al., 2010; Vallina et al, 2012; Khasawneh and Shuhaiber, 2013 and El-Garhi and Ericsson, 2014) developed to examine influencing of that factor on consumers attitudes toward mobile advertisements in Jordan. Form discussing the literature and reviewing the past studies which were conducted in different countries including one study in Jordan. Model of this study contains six variables, five of them are exogenous are (1) Informativeness (INF), (2) Credibility (C), (3) Personalization (P), (4) Entertainment (E) (5) Irritation (IRR) and one endogenous is consumers Attitudes toward mobile advertisements (ACMA) in Jordan as illustrated in Figure 1. Based on the discussions and the postulations above, the following five hypotheses are proposed for this study:

- H1: Informativeness has a positive effect on consumers' attitudes towards mobile advertising.
- H2: Credibility has a positive effect on consumers' attitudes towards mobile advertisements
- H3: Personalization has a significant positive effect on consumers' attitudes towards mobile advertising.

H4: Entertainment has a significant positive effect on consumers' attitudes towards mobile advertising.

H5: Irritation has a significant positive effect on consumers' attitudes towards mobile advertising.

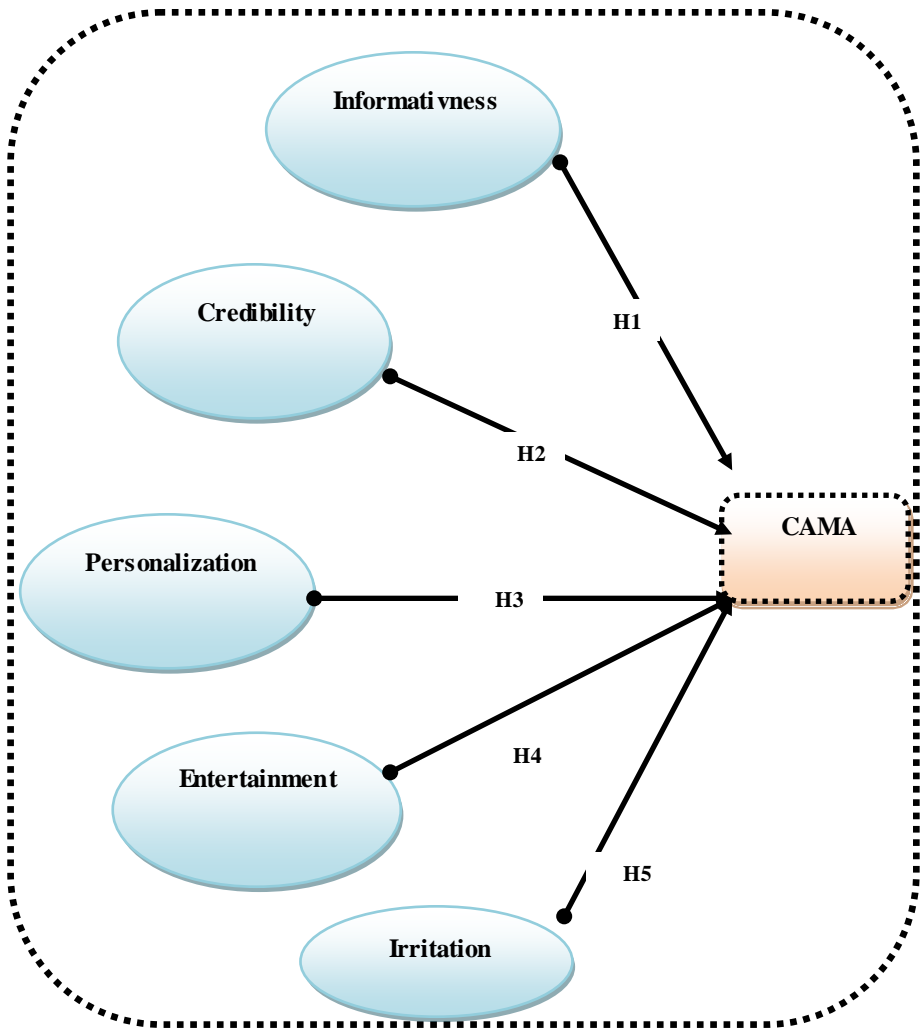


Figure 1: Model of study

Research Methodology

Research Methodology

The study mainly employed the quantitative approach, with the units of analysis as graduate students studying in Mu'tah University.

Sample of Study

For the purpose of studying the factors that could influence consumers' attitudes towards mobile advertisements in Jordan, the study sample was selected randomly from Mu'tah University under graduated students. Their selection is justified by the fact that they have Smart phones and they received a lot of advertising via their phones, and they can explain the factors influencing their attitudes toward mobile advertisements. The researchers distributed 500 questionnaires among the study sample.

Data Collection Methods

In this study data was collected as secondary and primary. In order to collect the secondary data the researchers went back to the literature and past studies and some internal record related to Ministry of Communication and Information Technology in Jordan, and using of the internet to get some relevant data. Moreover, as a mentioned before, this study utilizes the quantitative approach research by collecting primary data to examine the study hypotheses and to achieve the study objectives. The primary data were collected through the quantitative approach, using a developed questionnaire which is most suitable and appropriate for this type of this study.

Measurement of Study:

The study questionnaire was designed to include three parts; the first part contains a cover letter explaining the study title, as well as the purpose of the questionnaire and the researchers contact information. The second part contain the sample demographic profile which are (gender, age, income, resident place, the behavior toward mobile advertisements (automatically ignore it, open it with reading, delete it without reading). Finally, the third part contain eighteen (18) statements adopted from past

studies to measure influence of the proposed factors in model of this study are informativeness is measured by three items adopted from (Chowdhury, et al., 2006) based on (Tsangs et al.,2004), credibility is measured by three items adopted from (Chowdhury, et al., 2006) based on (Tsangs et al.,2004), personalization is measured by three items adopted from (Ünal,2011), irritation is measured by three items adopted from (Chowdhury, et al., 2006) based on (Tsangs et al.,2004), entertainment is measured by three items adopted from (Chowdhury, et al., 2006) based on (Tsangs et al.,2004) on consumers attitude toward mobile advertisements is measured by three items adopted from (Fishbein and Ajzen, 1975). Questionnaire of this study was written in Arabic to make it easier to be understood by the Arab respondents. To measure the variables items, the present study questionnaire used a five-point Likert scales for measuring all variables, from 1-5: (1) Strongly disagree, (2) Disagree, (3) Undecided, (4) Agree, (5) Strongly Agree. The questionnaire was distributed from the 5th. of April to the 10th., May 2015 (about five weeks). The researcher distributed five hundred (500) questionnaires to the respondents who returned four hundred sixty one (461) of the questionnaires while thirty nine (39) questionnaires were unreturned. Another twenty two (22) questionnaires were incomplete, therefore leaving four hundred thirty nine (439) questionnaires for further analysis or 88% response rate.

Data Screening:

The 439 dataset were coded and entered into SPSS version 18.0 and analyzed using AMOS version 8.0. The data were carefully examined for missing data. It was discovered that six (6) questionnaires or .01 percent have missing responses. However, the missing cases were treated with replacement of mean so none was deleted. This method is considered to be viable by several scholars such as (e.g. Hair et al., 2006). Next, inspection of Mahalanobis distance (D2) was conducted to identify outlier cases. Outlier result shows that seven (7) datasets were deleted due to D2 values greater than χ^2 value. For univariate normality test, Z-skewness scores greater than +3 or -3 were absent. Thus, each item is considered to be normal data (Coakes & Steed, 2003). Thus, only four hundred thirty two (432) questionnaires remained for final analysis. Subsequently, several statistical validity tests were then conducted such as reliability test, composite reliability tests, confirmatory factor analysis (CFA) for construct convergent validity, discriminate validity for multicollinearity treatment, descriptive

analysis and correlation. Hereafter, Structural Equation Modeling (SEM) analysis using AMOS 8.0 was conducted. SEM is selected because SEM, through the use of confirmatory factor analysis to minimize measurement error through to the multiple indicators per-latent variable, has the ability to estimate both direct and indirect effects, and it is a testable model and it also has the ability to ensure consistency of model with data and to estimate effects among constructs. The SEM analysis produces three structural models namely hypothesized structural model, revised model and competing model.

Findings of the Study

Profile of Respondents:

Analysis of the respondents descriptive data showed that most of the respondent were female (63%) while male only (37%). Also the results indicate that the majority of the respondents' (54%) ages were from 18–20 years old, (29%) from 21–23, (10%) from 24–26 and (7%) was more than 26 years of age. The findings of the analysis showed that the majority of the respondents' income per month was (100-200) JD with (62%), (21%) less than (100) JD and (17%) more than 200 JD. Also the analysis indicated that most of the respondents were from Karak province with (67%) and (33%) were from different area like (Amman, Tafilah, Ma'an, and Ma'daba). Finally, most of the respondents with (84%) open the message and read it, while (12%) delete the message without reading and (4%) set their phones to ignore it directly without receiving.

Variables Descriptive Statistics

The analysis results indicated that the six constructs, five exogenous (informativeness, credibility, personalization, irritation and entertainment) and one endogenous (consumers attitudes toward mobile advertisements (CAMA) have both Cronbach alpha and composite reliability which are above 0.70, which are acceptable value and reflect that all the constructs are consistent and reliable (Hair, et al, 2010; Nunnally, 1970). Moreover, the results found that the mean values were 3.972-4.886 which indicate that all the constructs were high as shown in Table 1 (Hair, et al, 2010).

Table (1) Reliability, Composite Reliability, Mean Values and Standard Deviation results

Construct	No. Items	Mean	S.D	C. alpha	Composite Reliability
CAMC	3	4.381	6.087	.881	.941
Informativeness	3	4.612	7.252	.817	.906
Credibility	3	3.972	5.474	.812	.881
Personalization	3	4.591	6.182	.901	.942
Irritation	3	4.112	-5.724	.782	.872
Entertainment	3	4.886	9.417	.921	.952

Confirmatory Factor Analysis (CFA) Results:

According to Hair, et al (2006, p.128) if the sample size is more than 350 datasets the factor loading should be more than the "cut-off" point which is 0.30 for each item. However, the analysis results showed that all from the confirmatory factor analysis results are in Table 2. We observed that the factor loadings of all observed variables conform to the convergent construct validity that ranging from 0.38 to 0.92 as shown in table 2.

Table (2) Confirmatory Factor Analysis (CFA) Results

Construct	Items Code	items	F.L
Consumers Attitude Toward Mobile advertisements (CAMA)	CAMA1	Mobile advertisements is a good idea	.43
	CAMA2	I like the idea of mobile advertising	.64
	CAMA3	Mobile advertisements is a pleasant idea	.71
Informativeness (INF)	INF1	Mobile advertisements help me keep up-to-date about products that I need.	.81
	INF2	Mobile advertisements are a good source for timely information.	.75
	INF3	Mobile advertisements usually provide the information I need.	.72
Credibility(C)	C1	I use mobile advertisements as reference for purchasing.	.71
	C2	I can trust on mobile advertisements.	.57
	C3	I am impressed by the mobile advertisements.	.51
Personalization(P)	P1	I feel that mobile advertisements displays personalized message to me	.66
	P2		.59

	P3	I feel that mobile advertisements is personalized for my usage Contents in mobile advertisements are personalized	.79
Irritation(IRR)	IRR1	I feel that mobile advertisements are irritating.	.88
	IRR2	I feel that mobile advertisements are almost everywhere.	.52
	IRR3	Contents in mobile advertisements are often annoying.	.48
Entertainment(E)	E1	I feel that receiving mobile advertisements are enjoyable.	.63
	E2	I feel that receiving mobile advertisements are enjoyable.	.72
	E3	I feel that receiving mobile advertisements are pleasing. I feel that receiving mobile advertisements are entertaining	.78

Discriminant Validity of Constructs:

According to Fornell and Larcker (1981) Discriminant validity refers to “observed constructs should not be highly correlated to each other (multi-collinearity)” and the discriminant validity, average variance extracted (AVE) should be more than the correlation squared. However, variables should be discriminating (Campbell & Fiske, 1959). Also, Average variance extracted (AVE) is the average VE values of two constructs as shown in Table 3. The VE is derived from the calculation of variance extracted using the following equation:

$$\text{Variance Extracted} = \frac{\sum(\text{standardizedSMC})^2}{\sum(\text{standardizedSMC})^2 + \sum \epsilon_j}$$

(1)

“Where (Li) is the standardized SMC for each indicator and (εj) is the error associated with the individual indicator variables”. (Hair et, al, 2010)

Table (3) Discriminant Validity of Constructs

Construct	Variance Extracted
CAMC	.645
Informativeness	.714
Credibility	.835
Personalization	.770
Irritation	.315

Entertainment	.612
----------------------	------

In addition, each AVE value (Table 3) is found to be more than correlation square (Table 4), thus discriminate validity is supported and the multi-collinearity is absent as shown in table (4).

Table (4) Correlation Matrix and Correlation Square

Construct	CAMC	INF	C	P	IRR	E
CAMC	1					
INF	.421(.177)	1				
C	.561(.314)	.551(.303)	1			
P	.362(.131)	.463(.214)	.441(.194)	1		
IRR	.427(.182)	.384(.147)	.422(.178)	.612(.374)	1	
E	.261(.068)	.396(.156)	.512(.262)	.571(.326)	.472(.222)	1

Good of Fit Index for Revised Model:

According to Hair, et al (2010) Maximum Likelihood (ML) estimation should be applied to evaluate structure coefficients between the variables. Therefore, after conducting the test the findings of goodness-of-fit model index for the revised model in table (5) showed that all the results were accepted comparing with the recommended values (Bagozzi & Yi, 1988; Hair et al., 2006).

Table (5) Good of Fit Index for Revised Model

Measures	Fit indexes	Recommended Values
Absolute Fit Level		
RMSEA	0.031	Less than 0.08
GFI	0.951	0.90 and above
Incremental Fit Level		
AGFI	0.972	0.90 and above
CFI	0.981	0.90 and above
TLI	0.990	0.90 and above
NFI	0.984	0.90 and above
Parsimonious Fit Level		
CMIN/DF	1.421	Less than 2.0

SMC (R ²) Attitude	.642	Bigger better
-----------------------------------	------	---------------

Hypothesis Results and Discussion:

In this study AMOS v8 software was applied to test the direct influence of five exogenous variables are (informativeness, credibility, personalization, irritation and entertainment) on one endogenous variables that is consumers' attitude toward mobile advertising, to determine the estimate of regression weight (E) of each construct and it Critical Ratio (CR) also the significant of each Path Coefficient (P).and the results summarize in next table (6).

Table (6) Direct Hypotheses Testing Result of Revised Model

H	EXO	ENDO	Estimate	C.R.	P	Hypothesis
H1	INF	CAMA	.621	10.641	***	Yes
H2	C	CAMA	.584	9.526	***	Yes
H3	P	CAMA	.701	12.831	***	Yes
H4	IRR	CAMA	-.482	-6.171	.004	No
H5	E	CAMA	.362	5.228	.003	Yes

The results showed that H1 is accepted. Hence the informativeness (INF) has positive and significant influence on consumers' attitude toward mobile advertising. However, ($\beta = .621$, C.R = 10.641; P***). This result it may be because the mobile advertisements aim at informing the consumers about the products, also provide the consumers with many details and information about the company's products. Moreover, informativeness plays an important role on the students attitude toward mobile advertisements because they response positively to this advertisement. Recipients react very positively to advertisement and they can benefit from that information provided by advertising. The result of this study is similar and confirmed from prior past studies (Tsang et al., 2004; Haghirian and Madlberger, 2005; Xu, 2006; Zabadi et al., 2012; Liu et al., 2012). Also the results indicate that credibility (C) has a positive and significant influence on consumers' attitude toward mobile advertising. Therefore, H2 accepted ($\beta = .584$, C.R =

9.526; P***). This result identified that credibility as the most important factor influencing students' attitude toward mobile advertising. This is because the students trust and believe mobile advertisements and it is not risky, also this type of this advertising provides them with truthful and credible information. However this study suggests that credibility has a direct effect on consumers' attitudes toward mobile advertising. Therefore, the companies have to pay more attention to the information provided in mobile advertising. Result of this study confirmed the results of past studies related to several researchers such as (Tsang, 2004; Chowdhury, Parvin, Weitenberner, & Becker, 2006; Waldt, et al., 2009; Chowdhury et al., 2010, Al Khasawneh & Shuhaiber, 2013).

Personalization (P) in this study is the highest factor that influences the consumers' attitudes toward mobile advertisements ($\beta = .701$, C.R = 12.831; P***) so H3 accepted this result. Personalization is considered as the most important factor impacting the customer's attitude toward mobile advertising. However, the students like message customizing that suits the individuals and their preferences. In addition, personalizing the message through the mobile device may build good and strong the relationship with consumers, because the advertisers have a database for the consumers to reach them directly and profitably. Hence, companies can modify the mobile messages based on the consumers' characteristic, local time, location, preferences and their needs. However, advertising via mobile include the relevant information about the services or products the consumers are interested in. In addition, we can say that, if the mobile advertisements well personalized, it will be an important media through which consumers can better relate to the advertising without feeling bothersome. This assertion supported by several scholars from their empirical previous studies (Tsang et al, 2004; Bauer et al., 2005; Jun and Lee, 2007; Zabadi et al., 2012; Liu et al., 2012). On the other hand, irritation (IRR) was found to have negative and insignificant influence on consumers attitude toward mobile advertisements ($\beta = -.482$, C.R = -6.171; P=.004). Therefore H4 rejected. This result is because the consumers don't like the mobile advertisements when they come without permission or can't be controlled by them, or when the message is received frequently or this message is manipulative. In addition, this reflects that the mobile advertizing sometimes received when the consumers make some personal activity or busy. Therefore, the

advertiser should have permission and choose the convenient time and place before sending the message which decreases the annoyance resulting from this type of advertising. However, this result confirmed from several past studies related to (Tsang, 2004; Saadeghvaziri & Hosseini, 2011; Zabadi et al, 2012; El-Garhi, 2014). Finally, entertainment (E) has positive and significant influence on consumers attitude toward mobile advertisements ($\beta = .362$, C.R = 5.228; $P = .003$). This means that H5 is accepted. This result could be because the students like the mobile advertisements when they include some entertainment aspect such as audio, video, sound and games and they are willing to accept this kind of advertising. Moreover, the students have a positive attitude toward mobile advertisements when include the element of the entertainment such as fun, enjoyment and entertaining. These elements make advertising more attractive and more acceptable for the consumers, therefore the advertiser should design the advertisement to include such entertainment elements that can build on several basics, such as humor, sympathy or love. This similarity of the results with spast studies related to (Tsang et al, 2004; Zabadi et al., 2012; El-Garhi, 2014).

Conclusion :

The current study aims at examining the influence of five main factors on consumers' attitudes toward mobile advertisements in Jordan. These factors as exogenous latent variables include (infomativeness, credibility, personalization, irritation and entertainment) and one endogenous latent variable is consumers' attitude toward mobile advertisements in Jordan. This study was based on quantitative approach, using questionnaire instrument to collect the primary data from sample of this study whom are the Mu'tah university students. Five hundred questionnaires were distributed to the respondents. Only four hundred and sixty one returned, and twenty two were uncompleted and seven datasets are outlier, Therefore, only four hundred and thirty two datasets were valid for final analysis, using SPSS v18 and AMOS v 8 for conducting several tests.

The results of this study indicated that most of the respondents were female and the majority of them were between 18-20 years .Also most of the respondents were residents from Karak, and mostly their income around 100-200 JD. Finally, most of the respondents with (84%) open the message and read it, while (12%) delete the message without reading and

(4%) set their phones to ignore it directly without receiving. The results also indicate that all the model variables have acceptable reliability and composite reliability value, and all the items of the constructs have acceptable factors loading. The validity test insures that variable of study model achieve the acceptance indicators which means that all the variables are valid, therefore the direct hypothesis test was running through AMOS v8 program.

Hypothesis test showed that all the direct hypothesis were accepted expect one that supposed the irritation has positive and significant influence on consumers attitudes toward mobile advertisements. However, these variables found to have negative effect on consumers attitudes. While other variables were found to have positive and significant influence on consumers attitudes toward mobile advertisements. The highest weight was for personalization influence is the most important factor influence on consumers attitudes, followed by credibility, informativeness and entertainment continually. Finally, some recommendations and suggestions for further research were determined.

References :

- Altuna, Oylum Korkut, & Konuk, Faruk Anil. (2009). Understanding Consumer Attitudes Toward Mobile Advertising And Its Impact On Consumers Behavioral Intentions: A Crossmarket Comparison Of United States And Turkish Consumers. *International Journal of Mobile Marketing*, 4(2).
- Bagozzi, Richard & Yi, Youjae. (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94.
- Balasubramanian, Sridhar, Peterson, Robert A, & Jarvenpaa, Sirkka L. (2002). Exploring the implications of m-commerce for markets and marketing. *Journal of the academy of Marketing Science*, 30(4), 348-361.
- Bauer, Hans H, Barnes, Stuart J, Reichardt, Tina, & Neumann, Marcus M. (2005). Driving consumer acceptance of mobile marketing: a theoretical framework and empirical study. *Journal of electronic commerce research*, 6(3), 181-192.
- Brackett, Lana & Carr, Benjamin N. (2001). Cyberspace advertising vs. other media: Consumer vs. mature student attitudes. *Journal of advertising research*, 41(5), 23-32.
- Campbell, Donald T, & Fiske, Donald W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological bulletin*, 56(2), 81.
- Carroll, A., Barnes, S., Scornavacca, E., & Fletcher, K. (2007). Consumer perceptions and attitudes towards SMS advertising: Recent evidence from New Zealand. *International Journal of Advertising*, 26(1), 79-98.
- Chowdhury, Humayun Kabir, Parvin, Nargis, Weitenberner, Christian, & Becker, Michael. (2010). Consumer attitude toward mobile advertising in an emerging market: An empirical study. *Marketing*, 12(2), 206-216.

- Coakes, Sheridan, Steed, Lyndall G, Coakes, SJ, & Steed, L. (2003). Multiple response and multiple dichotomy analysis. SPSS: analysis without anguish: version, 11, 215-224.
- Daugherty, Terry, Logan, Kely, Chu, Shu-Chuan, & Huang, Szu-Chi. (2008). Understanding consumer perception of advertising: A theoretical framework of attitude and confidence. Paper presented at the American Academy of Advertising.
- Davis, Fred D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- Ducoffe, Robert H. (1996). Advertising value and advertising on the web. *Journal of advertising research*, 36(5), 21-35.
- El-Garhi, Samir, & Ericsson, Roberth. (2014). Consumers' attitude towards mobile advertisement: A study within the smartphome era among Ghanaian consumers. 1-36
- Fernandez, KV, & Rosen, DL. (2000). The effectiveness of information and color in Yellow Page advertising. *Journal of Advertising*, 29(2), 61-73.
- Fishbein, Martin, & Ajzen, Icek. (1975). Belief, attitude, intention and behavior: An introduction to theory and research.
- Fishbein, Martin, & Ajzen, Icek. (1980). Predicting and understanding consumer behavior: Attitude-behavior correspondence. *Understanding attitudes and predicting social behavior*, 148-172.
- Fornell, Claes, & Larcker, David F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
- Haghirian, Parissa, & Madlberger, Maria. (2005). Consumer attitude toward advertising via mobile devices-An empirical investigation among Austrian users. *ECIS 2005 Proceedings*, 44.
- Haig, Matt. (2002). *Mobile marketing: The message revolution*: Kogan Page Publishers.
- Hair, Joseph F. (2010). *Multivariate data analysis*.

- Hair, Joseph F, Black, William C, Babin, Barry J, Anderson, Rolph E, & Tatham, Ronald L. (2006). *Multivariate data analysis (Vol. 6)*: Pearson Prentice Hall Upper Saddle River, NJ.
- Heo, Nojeong, & Varshney, Pramod K. (2003). A distributed self spreading algorithm for mobile wireless sensor networks. Paper presented at the Wireless Communications and Networking, 2003. WCNC 2003. 2003 IEEE.
- Jelassi, Tawfik, & Enders, Albrecht. (2004). Leveraging wireless technology for mobile advertising. *ECIS 2004 Proceedings*, 50.
- Khasawneh, A, & Shuhaiber, Ahmed. (2013). A comprehensive model of factors influencing consumer attitude towards and acceptance of SMS advertising: An empirical investigation in Jordan. *Research and Development (IJSMMRD)*, 3(2), 1-22.
- Kim, Hee-Su, & Yoon, Choong-Han. (2004). Determinants of subscriber churn and customer loyalty in the Korean mobile telephony market. *Telecommunications policy*, 28(9), 751-765.
- Kotler, Philip, & Zaltman, Gerald. (1971). Social marketing: an approach to planned social change. *The Journal of Marketing*, 3-12.
- Lafferty, Barbara A, Goldsmith, Ronald E, & Newell, Stephen J. (2002). The dual credibility model: The influence of corporate and endorser credibility on attitudes and purchase intentions. *Journal of Marketing Theory and Practice*, 1-12.
- Lee, Young Eun, & Benbasat, Izak. (2003). Interface design for mobile commerce. *Communications of the ACM*, 46(12), 48-52.
- Leppaniemi, Matti, & Karjaluoto, Heikki. (2005). Factors influencing consumers' willingness to accept mobile advertising: a conceptual model. *International Journal of Mobile Communications*, 3(3), 197-213.
- Li, Shiming, Pan, Min-Hsiung, Lai, Ching-Shu, Lo, Chih-Yu, Dushenkov, Slavik, & Ho, Chi-Tang. (2007). Isolation and syntheses of polymethoxyflavones and hydroxylated polymethoxyflavones as

- inhibitors of HL-60 cell lines. *Bioorganic & medicinal chemistry*, 15(10), 3381-3389.
- Lin, Xu. (2007). An Empirical Analysis of Factors Influencing the Credibility of Online Word-of-Mouth [J]. *Finance and Trade Research*, 5, 019.
- MacKenzie, Scott B, & Lutz, Richard J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *The Journal of Marketing*, 48-65.
- Micu, Camelia, & Chowdhury, Tilottama G. (2010). The effect of message's regulatory focus and product type on persuasion. *Journal of Marketing Theory and Practice*, 18(2), 181-190.
- Nunnally Jr, Jum C. (1970). *Introduction to psychological measurement*.
- Nysveen, Herbjørn, Pedersen, Per E, & Thorbjørnsen, Helge. (2005). Intentions to use mobile services: Antecedents and cross-service comparisons. *Journal of the academy of marketing science*, 33(3), 330-346.
- Riecken, Doug. (2000). Personalized views of personalization. *Communications of the ACM*, 43(8), 27-28.
- Saadeghvaziri, Faraz, & Hosseini, Hamid Khodadad. (2011). Mobile advertising: An investigation of factors creating positive attitude in Iranian customers. *African journal of business management*, 5(2), 394-404.
- Scharl, Arno, Dickinger, Astrid, & Murphy, Jamie. (2005). Diffusion and success factors of mobile marketing. *Electronic commerce research and applications*, 4(2), 159-173.
- Stewart, Katherine. (2003). Trust transfer on the world wide web. *Organization Science*, 14(1), 5-17.
- Tsang, Melody M, Ho, Shu-Chun, & Liang, Ting-Peng. (2004). Consumer attitudes toward mobile advertising: An empirical study. *International Journal of Electronic Commerce*, 8(3), 65-78.
- Telecommunications Regulatory Commission TRC. (2015) www.trc.gov.jo
- Ünal, Sevtap, Ercis, Aysel, & Keser, Ercan. (2011). Attitudes towards mobile advertising—A research to determine the differences between

the attitudes of youth and adults. *Procedia-Social and Behavioral Sciences*, 24, 361-377.

Vallina-Rodriguez, Narseo, Shah, Jay, Finamore, Alessandro, Grunenberger, Yan, Papagiannaki, Konstantina, Haddadi, Hamed, & Crowcroft, Jon. (2012). Breaking for commercials: characterizing mobile advertising. Paper presented at the Proceedings of the 2012 ACM conference on Internet measurement conference.

Wong, M. & Tang, E. (2008). Consumers Attitudes towards Mobile Advertising: The Role of Permission. *Review of Business Research*, 8(3), 181- 187.

<http://www.trc.gov.jo/index.php?lang=english>

<http://www.moict.gov.jo/HOMe.aspx>

Xu, David Jingjun. (2006). The influence of personalization in affecting consumer attitudes toward mobile advertising in China. *Journal of Computer Information Systems*, 47(2), 9.

Xu, David Jingjun, Liao, Stephen Shaoyi, & Li, Qiudan. (2008). Combining empirical experimentation and modeling techniques: A design research approach for personalized mobile advertising applications. *Decision Support Systems*, 44(3), 710-724.

Yang, Kenneth CC. (2007). Exploring factors affecting consumer intention to use mobile advertising in Taiwan. *Journal of International Consumer Marketing*, 20(1), 33-49.

Yunos, Hassim Mohamed, Gao, Jerry Zeyu, & Shim, Simon. (2003). Wireless advertising's challenges and opportunities. *Computer*, 36(5), 30-37.

Zabadi, Abdulraheem M Ahmad, Shura, Mohammad, & Elsayed, EA. (2012). Consumer attitudes toward SMS advertising among Jordanian users. *International Journal of Marketing Studies*, 4(1), p77.