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Mobile advertising: An investigation of factors creating positive attitude in Iranian customers

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The rapid proliferation of mobile phones along with the technological development has created a whole new marketing medium named mobile advertising. This research investigates the influencing factors in creating positive attitude toward mobile advertising through a survey among Iranian mobile users. The results, conducted on 652 mobile phone users, showed that personalization, informativeness, irritation, credibility, entertainment, and also monetary benefit of mobile advertising are influential in developing positive attitude toward mobile advertising. Examining component variables of influencing factors, the study demonstrates ways of applying features creating positive attitude toward mobile advertising

Key words: Mobile advertising, personalization, informativeness, irritation, credibility, entertainment, monetary benefit.

INTRODUCTION

Advertising has changed rapidly over the years due to new techniques and technologies (Richards and Curran, 2002). The rapid proliferation of mobile phones along with the technological development has created a whole new channel for advertising named mobile advertising. Iran's mobile industry is expanding quickly. According to industry figures, 12% of Iranians were mobile phone users in 2005, however the penetration rate rose to 45% in 2008 (Telecommunication Company of Iran, 2008). As SMS and MMS are continually growing at an enormous rate in Iran, mobile advertising has been developing as an important channel for advertising. Researchers, so far, have found a variety of factors affecting attitudes toward mobile advertising in their studies. In mobile advertising context, Tsang et al. (2004) found that entertainment, credibility, irritation and informativeness are the significant factors affecting respondents' attitudes toward mobile advertising. However, Xu (2007) added personalization

and found that only entertainment, credibility and personalization are affecting factors. Recently Waldt and Colleagues (2009) reported young African consumer have generally negative attitude toward mobile advertising and entertainment, credibility and irritation of mobile advertising are correlated to consumers' overall attitudes toward mobile advertising. Chowdhury et al. (2006) studied the factors affecting acceptance of mobile advertising in Bangladesh, and concluded that out of perceived credibility, irritation, entertainment and informativeness of the advertisements, only credibility had a significant impact on the attitude towards mobile advertising. Considering previous studies showing that researchers have selected different variables and found different results.

In this study we aim to find if there are any effects of previous factors along with monetary benefit to create positive attitude toward mobile advertising among Iranian mobile users. It is important to know what factors affect mobile users' attitude toward mobile advertising and how designers and marketers can better strategize their advertising designs. Also investigating factors affecting Iranians attitudes toward mobile advertising extend

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current research on attitude toward mobile advertising to a distinctly different cultures context and also may provide useful implications about expanding business across cultures.

LITERATURE REVIEW

De Reyck and Degraeve (2003) defined mobile advertising as, "targeting well-identified potential customers with text messages, thereby increasing the response-to-advertisement ratio." According to definition proposed by Mobile Marketing Association (2003), mobile advertising is "any form of marketing, advertising or sales promotion activity aimed at consumers and conducted over a mobile channel". Also it can be defined as, "the business of encouraging people to buy products and services using the mobile channel as a medium to deliver the advertising message" (Leppaniemi et al., 2005). However it can be said that the minimum scope of this new phenomenon is "advertising that uses mobile terminals" (Bulander et al., 2005) and the maximum scope is using mobile as a interactive and ubiquitous marketing medium to provide consumers with personalized information according to where they are and their needs, thereby persuading the receiver to take some action, now or in the future, about goods, services and ideas.

Attitude is an important concept in marketing. Fishbein (in Tsang et al., 2004) defined an attitude as "a learned predisposition of human beings". Based on this predisposition, "an individual would respond to an object (or an idea) or a number of things (or opinions)." Kotler and Keller (2006) stated that "an attitude is a person's enduring favorable or unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea". So, positive attitude to toward mobile advertising refers to the consumer favorable evaluations and willingness toward mobile advertising. There are factors that may play a role in improving attitude towards mobile advertising. In the following sections, we identify the factors that may affect attitude toward mobile advertising and then develop a number of hypotheses that are examined in the remainder of the paper.

Personalization

Consumers would like the content of mobile services to be customized to their interests and relevant for them. Personalization of mobile advertising can enable marketers to reach their potential customers in a very individual way and thus increase the relationship with the consumers (Robins, 2003). Ho and Kwok (2003) state that "with personalization, the amount of messages sent

to the customers will be reduced, and the users will no longer receive numerous irrelevant messages". Also, Rao and Minakakis (2003) argue that it is urgently necessary for marketing techniques based on knowledge of customer profiles, history, and their needs. Yan et al. (2004) state that a personalized mobile advertising aims at certain customers and accommodates their needs according to their order of preference and shopping habits. In other word, personalized mobile advertising refers to sending advertising messages to mobile devices, based on user demographics (e.g. income), user preference (e.g. preferred product), context (e.g. location and user activities) and content (e.g. brand name) factors (Xu, 2007).

Enpocket (2006), the Intelligent Mobile Marketing Company, conducted an advertising study with more than 1200 mobile users across the Europe, United States, and India, which revealed that mobile users were far more accepting of mobile advertising when it was made relevant. The research found that targeted mobile advertising was 50% more acceptable to consumers than were untargeted advertising. Moreover, 78% said they would be glad to receive mobile advertising that was tailored to their interests. Of those, 64% would be willing to provide personal details for analysis to improve relevance of targeted advertisings. Not only the content of mobile advertising can be personalized according to customers' profile, it could also be personalized in terms of their location. Location-base advertising refers to sending advertisement based on consumer's location. In order to determine a person's position, different location techniques can be used. For example Global Positioning System (GPS) which computes the user's position from signals transmitted from a satellites constellation. The main advantage of such satellite systems are their global coverage, accuracy and minimum impact on the existing communication networks. By means of GPS, the user's location can be defined very accurately (2 to 20m). The user can also be identified by the telecom operator in the network. The positioning is based on identifying the mobile network cell in which the mobile phone is located, or on measuring distances to overlapping cells. In urban areas the accuracy can be down to 50 m (Iddris, 2006).

Andersson and Nilsson (2000) evaluated location-sensitive SMS campaign effectiveness based on traditional communication effect measures, and found that SMS campaigns were effective and did have a positive impact especially on brand awareness and purchase intention. One of the most promising applications of mobile is the ability to identify the customer's location (Iddris, 2006). The utilization of customer's location as personalization variable is beneficial in that mobile advertising as a marketing medium has features that other marketing channels lack (Xu et al., 2008). Compared to traditional

marketing channels, the prominent advantage of mobile marketing is that a specific audience can be targeted in the right place, at the right time, in a direct and personal manner (Enpocket, 2006). Based on the previous literature, the following hypothesis is formulated:

H₁: The personalization of mobile advertising leads to positive attitude toward mobile advertising

Irritation

The tactics advertisers use when competing for consumers' attention can be annoying to the audiences. When advertising employs techniques that annoy, offend, or are overly manipulative, consumers are likely to perceive it as unwanted and irritating influence (Ducoffe, 1996). Mobile advertising can provide an array of information that confuses and distracts the recipient as well as overwhelms the consumer with information (Xu, 2007). In their major survey of American consumers, Bauer and Greyser (1968) founded the main reasons consumers criticize advertising related to annoyance or irritation it causes. Several different ways are available in order to decrease the annoyance of mobile advertising. One way can be permission-based advertising. It is stated that consumers are needy of some control in order to accept advertising into their mobiles. This refers simply to people control over when, where, what and how much advertising to receive into the mobile (Carroll et al., 2007). The difference between permission-based advertising and traditional irritative advertising is that messages about specific products, services, or content are sent only to individuals who have explicitly indicated their willingness to receive the message (Tsang et al., 2004). By relying on the permission of the target audience, permission-based advertising focuses on reducing the irritation. In other words, permission based advertising is an agreement between advertiser and receiver where the receiver decides when and how much information to receive (Michael and Salter, 2006).

De Reyck and Degraeve (2003) noted that mobile advertising works only if it is permission based. Binay (in Maneesoonthorn and Fortin, 2006) reported that respondent were negative to mobile advertising but there is a change in attitude when the messages are permission-based or can be switched-off at will. Unsolicited messages stifle user acceptance and commonly known as spam. Before sending advertisements, advertisers should have permission and convince consumers to "opt-in". A simple registration ensures sending relevant messages to an interested audience. Also mobile advertising should employ language understood by the target group. Messages should also disclose how to stop receiving further

messages. On the other hand, mobile advertising messages should be short and to the point (Scharl et al., 2005). Due to the space limitations, reading from mobile devices may take more time. Therefore, the message should be kept short (Edens and McCormick, 2000). In Iran, it is possible to write mobile advertising messages in the Persian or in Roman alphabet, as in Turkish language which Roman alphabet is used. But Iranian people usually use Persian alphabet. Therefore, sending messages in Persian alphabet may be more favorable to Iranian consumer. Based on the previous literature, the following hypothesis is proposed:

H₂: Nonirritating mobile advertising leads to positive attitude

Credibility

Credibility of advertising is an important predictor of attitude toward the advertising. Advertising credibility is "consumers' perception of the truthfulness and believability of advertising in general" (Mackenzie and Lutz, 1989).

Credibility of an advertisement is influenced by different factors, especially by the company's credibility (Goldsmith et al., 2000). Corporate credibility is defined as "the extent to which consumers believe that a firm can design and deliver products and services that satisfy customer needs and wants" and has been found to have direct positive effects on attitude toward the ad, the brand, and purchase intent (Choi and Rifon, 2002). On the other hand, due to declining advertising Credibility, marketers continually search for innovative ways to communicate their messages. Traditional advertising has to cope with challenges like lack of credibility, getting time and attention from consumers, also growing advertising reactance but using mobile viral marketing results in more benefits with less expenditure (Jelassi and Enders, 2004). Mobile viral marketing is defined as a marketing communication or distribution concept that relies on consumers to transmit mobile advertising content to other potential consumers (Wiedemann and Pousttchi, 2008).

In Wiedemann and Pousttchi's study (2008) almost 70% of the 44 experts stated that this mobile form of interpersonal communication is an important characteristic of a mobile marketing campaign. Also, the experts confirmed that recipients getting a mobile advertising message from familiar communicators participate more frequently in a campaign as initial contacts. Because the personal message gaining more credibility than that coming directly from the self-interest advertiser (Wiedemann and Pousttchi, 2008). However, Okazaki (2005) believes

neglected largely by academic research. Consumer's motivation for forwarding messages can be intrinsic or extrinsic. Intrinsic motivation is based on the inherent need of consumers to feel competently and to control their environment in order to stabilize or enhance their self-esteem. Extrinsic motivation rests upon tangible (e.g., money) or intangible rewards (e.g., public praise) (Wiedemann and Pousttchi, 2008). Based on the previous literature, the following hypothesis is proposed:

H₃: The credibility of mobile advertising leads to positive attitude toward mobile advertising.

Informativeness

A key role of advertising is to generate awareness of products and to make consumer aware of how competing products are different (Soberman, 2004). One of the advertising goals is to inform audience about new products or new features of existing products, also make audience aware of changes in products' price (Kotler and Keller, 2006).

Petrovici and Marinov (2007) founded that product information acquisition is the primary personal use of advertising which influences general attitudes to advertising in Bulgaria and suggested marketers should prioritise the informative power of advertising. The form (entertainment) and content (informativeness) of ads are important predictors of their value and are crucial to the effectiveness of Web advertising (Ducoffe, 1996). Also informativeness of the advertising is strongly related to the attitude toward the advertising when it is transferred via traditional media (Ducoffe, 1995). So it can be concluded that informativeness of mobile advertising message positively influences attitude. The following hypothesis can thus be formulated:

H₄: The informativeness of mobile advertising leads to positive attitude toward mobile advertising.

Entertainment

People's feeling of enjoyment associated with advertisements play the greatest role in accounting for their overall attitudes toward them (Shavitt et al., 1998). So it is necessary that the message is concise and funny, and thus immediately captures the consumers' attention (Kalakota and Robinson, 2002). On the other hand, it has been argued that mobile advertising is based on SMS messages today, while MMS messages would be the right approach to drive mobile campaigns in the future. MMS differs from the SMS because it enables to send

pictures, videos and sounds in the messages to the consumers. MMS technology is expected to become more used with the movement from 2G to 3G phones (Pietz and Storbacka, 2007). The mobile phone has become a prominent media and entertainment platform. Entertainment services can add value for the customer and increase customer loyalty (Haghirian and Dickinger, 2004). Ducoffe (1995) showed that entertainment of the advertising is significantly related to advertising value of traditional advertising. Therefore, based on the previous literature, the following hypothesis is proposed:

H₅: The entertainment of mobile advertising leads to positive attitude toward mobile advertising.

Monetary benefit

It is possible to create value for mobile advertising messages. People are interested in deriving some monetary benefit from direct marketing programs (Milne and Gordon, 1993). In a Nokia-sponsored survey, conducted by HPI Research Group, almost nine out of ten participants (86%) agreed that there must be a trade-off for accepting advertisements on their mobile devices (Pastore, 2002). A survey from the United States showed that 66% of consumers will accept cell phone ads if they are paid to accept them and 59 percent would want at least \$1.00 or more per mobile advertising (Hanley et al., 2006). The main advantage of this approach is that the mobile users are provided with a tangible reason. Incentive based advertising is an approach that provides specific financial rewards to consumers who agree to receive ads into their mobile phones (Pietz and Storbacka, 2007). By sending incentive based advertising, advertisers create the value to message. Thus, they make the message activate and create good feeling for customer (Iddris, 2006). In order to execute this concept, raffle or mobile coupon can be used. A mobile coupon is an electronic ticket delivered by mobile phone that can be exchanged for a financial discount or rebate when purchasing a product or service (Mobile Marketing Association, 2008). Based on the previous literature, the following hypothesis is proposed:

H₆: The monetary benefit of mobile advertising leads to positive attitude toward mobile advertising.

The research framework is formulated based on these hypotheses. Figure 1 depicts the framework of the research. These six factors are expected to affect consumer attitude toward mobile advertising. Table 1 summarizes the hypotheses being tested.

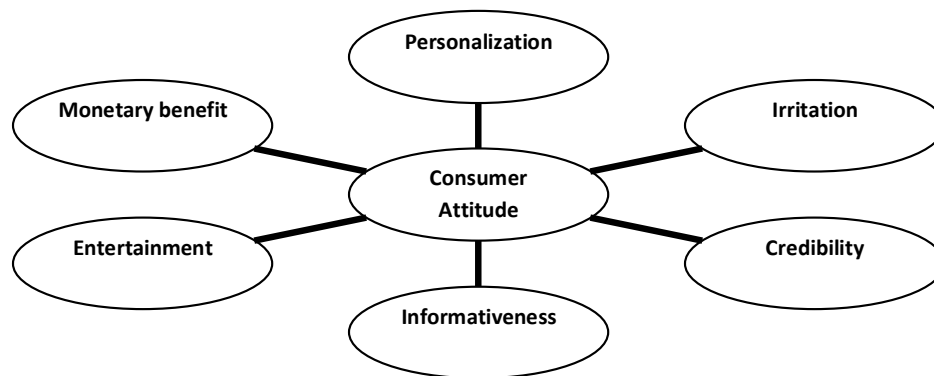


Figure 1. Factors affecting consumer attitude toward mobile advertising.

Table 1. Summary of hypotheses.

Reference	Hypotheses
H ₁	The personalization of mobile advertising leads to positive attitude toward mobile advertising
H ₂	Nonirritating mobile advertising leads to positive attitude
H ₃	The credibility of mobile advertising leads to positive attitude toward mobile advertising.
H ₄	The informativeness of mobile advertising leads to positive attitude toward mobile advertising.
H ₅	The entertainment of mobile advertising leads to positive attitude toward mobile advertising.
H ₆	The monetary benefit of mobile advertising leads to positive attitude toward mobile advertising.

METHODOLOGY

Data for this research were collected through a questionnaire survey. The questionnaire designed for this study consisted of three parts: The first part was introduction and explained purpose of the survey and definition of mobile advertising (any form of advertising that appear on your mobile phone through SMS or MMS). In the second part, five questions were designed to elicit the respondent's demographic data, such as gender, age, education, job, and income. The third part included 18 statements (Appendix 1). The questionnaire statements were developed from an extensive review of the literature (Table 2). The respondents were asked to specify their level of agreement to the statements. Apart from the demographic attributes, all other measures were assessed via a 5-point Likert-type scale ranging from "strongly agree" to "strongly disagree."

Although, for developing the questionnaire for this research, we employed the criteria were introduced in previous studies (Table 2), five advertising experts were interviewed and the content validity of the questionnaire after some wording correction was confirmed by them. Also, it was pretested on 21 individuals on December 15 to 25, 2009, and was revised on the basis of their feedback. The questionnaires were distributed in several banks in different areas of Tehran city. Mentioned places were chosen since diverse mobile users go there (Table 3). The realised sample was 652 respondents who own mobile phones and had received mobile advertisements. The respondents included 48% of males and 52% of females. Sixty-five percent of them were under 35 years of age, 62% had at least a college degree, and 26 percent were students, which indicates that the respondents were primarily young and well educated. The

data were tested for reliability using Cronbach's alpha to assess reliability. Results of the reliability test show that the data collected from the survey are reliable and suitable for further analysis (Table 4).

RESULTS

Hypotheses were tested using one-sample T-test at a 95% level of confidence. As each factor is measured in several questions, the average scores of them are calculated for hypotheses testing. Table 5, 6, and 7 indicate the results of the hypotheses test. The results, interestingly, show that all hypotheses are accepted. As each significant level is less than 0.05, it can be concluded that each factor and related variables have positive effect in creating consumers' positive attitude toward mobile advertising. Bonferroni analysis indicates that factors are classified into three groups according to their importance (Table 8): first group (informativeness, monetary benefit, personalization, and irritation), second group (entertainment), and third group (credibility). The mean differences of male and female respondents were assessed to ascertain gender disparity in influencing factors. From Table 9, we can observe that the difference between males and females are not statically significant.

Table 2. Affecting factors and component variables.

Factors	Component	Reference(s)
Personalization	Relevant to user's needs	Robins (2003)
	Relevant to user's job and activities.	Enpocket (2006)
	Relevant to user's location	Xu (2007)
	Advertising subject chosen by recipient	Yan et al. (2004)
	Advertising receiving time chosen by recipient	Rao and Minakakis (2003) Andersson and Nilsson (2000)
Irritation	Being Short and to the point	Xu (2007)
	obtained permission in advance	Edens and McCormick (1990)
	The possibility of preventing from receiving further messages	Scharl et al. (2005)
	Written in Persian	Carroll et al. (2007)
		De Reyck and Degraeve (2003) Michael and Salter (2006) Tsang et al. (2004)
Credibility	Received from acquaintances (familiar communicators)	Wiedemann and Pousttchi (2008)
	Credibility of sender (received from famous and credible company)	Jelassi and nders (2004)
		Goldsmith et al. (2000) Choi and Rifon (2002)
Informativeness	Informativeness about new products	Soberman (2004)
	Informativeness about changes in products' price	Ducoffe (1995)
	Informativeness about raffles and discounts	Kotler and Keller (2006)
Entertainment	Being funny	Pietz and Storbacka (2007)
		Kalakota and Robinson (2002)
	Containing photo, sound, video	Shavitt et al. (1998) Xu (2007)
Monetary Benefit	The possibility of taking part in raffle for receiving messages	Milne and Gordon (1993)
		Pastore (2002)
	Containing mobile coupon	Hanley et al. (2006)
		Varshney (2003) Pietz and Storbacka (2007) Bojin and Ian (2006) Varshney (2003)

So the influencing factors have same effects on males and females.

CONCLUSION AND IMPLICATIONS

The study discussed in this paper investigated features which result in creating positive attitude toward mobile

advertising. It added empirically to the current body of knowledge through new evidence and also demonstrated ways of applying factors affecting positive attitude toward mobile advertising. Thus, present findings have implications for both researchers and practitioners. At the theory level, the study has produced greater understanding of the variables that appear to be most responsible in improving consumer positive attitude toward mobile

Table 3. Distribution of questionnaires.

	Distributed	Returned
East	160	113
West	160	139
Center	160	149
North	160	140
South	160	111
Total	800	652

Table 4. Reliability of data.

	Number of questions	Cronbach's alpha
Informativeness	3	0.956
Irritation	4	0.789
Credibility	2	0.736
Entertainment	2	0.813
Personalization	5	0.854
Monetary Benefit	2	0.927
Total	18	0.837

Table 5. Results of t-test (Personalization).

	t	Mean	Sig. (2-tailed)	95% CI of difference	
				Lower	Upper
Personalization	33.69	3.84	0.000	0.898	0.799
Relevant to user's needs	35.70	4.23	0.000	1.3	1.16
Relevant to user's job and activities	30.519	4.12	0.000	1.19	1.04
Relevant to user's location	21.41	3.86	0.000	0.94	0.78
Advertising subject chosen by recipient	11.03	3.49	0.000	0.58	0.4
Advertising receiving time chosen by recipient	11.87	3.21	0.000	0.6	0.43

advertising. On the other hand, it gives practitioners insight into how effective mobile advertising campaigns should be designed. According to the result of the first hypothesis, personalization has positive effect on consumer attitude. As mentioned, it is believed that marketing techniques have to be based on knowledge of customer profiles (Rao and Minakakis, 2003). On the other hand, compared to traditional marketing channels, the great advantage of mobile marketing is that a specific audience can be targeted in a direct and personal manner. So by developing a database, mobile advertising should be personalized according to customers' profiles. One of the main reasons people criticize advertising can

be related to irritation (Bauer and Greyser, 1968). According to the results, in order to decrease irritation in mobile advertising and increase positive attitude toward it, messages should be short and to the point, and have got consumer's permission in advance. In addition, consumer must be able to stop receiving further messages. Finally, for Iranian consumers, message should be written in Persian alphabets not in Roman.

As results show, corporate credibility results in positive attitude toward mobile advertising. This is consistent with Choi and Rifon's study (2002) that they found corporate credibility has direct positive effects on attitude toward the ad, the brand, and purchase intent. So famous and

Table 6. Results of t-test (Irritation and Credibility).

	t	Mean	Sig. (2-tailed)	95% CI of difference	
				Lower	Upper
Irritation	33.0	3.846	0.000	0.796	0.896
Short and to the point	37.34	4.24	0.000	1.21	1.35
Obtained permission in advance	10.9	3.49	0.000	0.4	0.58
The possibility of preventing from receiving further messages	22.06	3.89	0.000	0.81	0.97
Written in Persian	14.3	3.64	0.000	0.55	0.72
Credibility	14.49	3.48	0.000	0.419	0.594
Received from acquaintances (familiar communicators)	2.07	3.08	0.038	0.00	0.16
Credibility of sender	21.34	3.87	0.000	0.79	0.95

Table 7. Results of t-test (Informativeness, Entertainment, and Monetary Benefit).

	t	Mean	Sig. (2-tailed)	95% CI of difference	
				Lower	Upper
Informativeness	28.27	3.92	0.000	0.85	0.98
Informativeness about new products	32.2	4.15	0.000	1.04	1.22
Informativeness about changes in products' price	25.10	3.98	0.000	0.9	1.06
Informativeness about raffles and discounts	14.43	3.64	0.000	0.55	0.73
Entertainment	0.84	3.77	0.000	0.77	0.84
Being funny	14.33	3.61	0.000	0.53	0.69
Containing photo, sound, video	21.27	3.93	0.000	0.85	1.02
Monetary Benefit	22.40	3.837	0.000	0.764	0.911
The possibility of taking part in raffle for receiving messages	15.47	3.69	0.000	0.61	0.78

well-known companies have a good chance of successful mobile advertising campaigns. Also, it is possible to increase mobile advertising credibility by utilizing mobile viral marketing. In Wiedemann and Pousttchi's study (2008) experts stated the influence of this kind of advertising. The idea has been confirmed by this empirical study. Therefore intrinsic and extrinsic motivation for forwarding messages should be used as much as possible. According to the result of the fourth hypothesis, informativeness of mobile advertising leads to consumer positive attitude. Not only in mobile advertising, but also in traditional media, informativeness influences attitude toward the advertising (Ducoffe, 1995). Based on research findings, mobile advertising should be informative about new products, changes in products' price, and raffles and discounts. The effect of the entertainment has been confirmed in the fifth hypothesis. This is consistent with the previous studies. For example, Ducoffe (1995) noted that entertainment of the advertising is significantly related to advertising value of traditional advertising. Based on the empirical findings, it

can be said that mobile advertising should be funny, and contain picture, video and sound.

Finally, monetary benefit of mobile advertising has a direct influence on consumer attitude toward mobile advertising. So mobile advertising must create value. In other words, consumers who agree to receive ads into their mobile phones should be provided by financial rewards. Prior studies have been found of important gender differences in human communication, including advertising (Okazaki, 2007; Wolin 2003). For example Mathew and Dambal (2010) showed females perceive stronger irritation in mobile advertising than males. And Okazaki (2007) found that females trust in mobile advertising significantly more than males. In this study, there was no specific difference between male and female respondents in case of attitude affecting factors. It should be pointed out that these inconsistencies are possibly attributable to cultural influences. As Okazaki (2007) noted "cultural influences on gender may be dissimilar across cultures". Overall, mobile advertising has been developing as an important channel for

Table 8. Bonferroni analysis.

(I) Factor 1	(J) Factor I	Mean difference (I-J)	Sig. ^a	95% CI for difference ^a	
				Lower bound	Upper bound
Personalization	Monetary benefit	-0.010	1.000	-0.126	0.107
	Informativeness	-0.076	0.692	-0.187	0.036
	Irritation	0.011	1.000	-0.078	0.099
	Credibility	0.346*	0.000	0.239	0.453
	Entertainment	0.066	1.000	-0.057	0.190
Monetary benefit	Personalization	0.010	1.000	-0.107	0.126
	Informativeness	-0.066	0.832	-0.167	0.035
	Irritation	0.021	1.000	-0.104	0.145
	Credibility	0.356*	0.000	0.223	0.489
	Entertainment	0.076	1.000	-0.053	0.205
Informativeness	Personalization	0.076	0.692	-0.036	0.187
	Monetary benefit	0.066	0.832	-0.035	0.167
	Irritation	0.087	0.312	-0.024	0.197
	Credibility	0.422*	0.000	0.305	0.539
	Entertainment	0.142*	0.007	0.023	0.261
Irritation	Personalization	-0.011	1.000	-0.099	0.078
	Monetary benefit	-0.021	1.000	-0.145	0.104
	Informativeness	-0.087	0.312	-0.197	0.024
	Credibility	0.335*	0.000	0.235	0.436
	Entertainment	0.056	1.000	-0.066	0.177
Credibility	Personalization	-0.346*	0.000	-0.453	-0.239
	Monetary benefit	-0.356*	0.000	-0.489	-0.223
	Informativeness	-0.356*	0.000	-0.539	-0.305
	Irritation	-0.335*	0.000	-0.436	-0.235
	Entertainment	-0.280*	0.000	-0.398	-0.162
Entertainment	Personalization	-0.066	1.000	-0.190	0.057
	Monetary benefit	-0.076	1.000	-0.205	0.053
	Informativeness	-0.142*	0.007	-0.261	-0.023
	Irritation	-0.056	1.000	-0.177	0.066
	Credibility	0.280*	0.000	0.162	0.398

Table 9. T test for sample on variables influencing attitude toward mobile advertising, female and male comparison.

Factors	Mean (male)	Mean (female)	T value	Sig
Personalization	3.8891	3.7925	1.860	0.063
Informativeness	3.9406	3.8907	0.733	0.464
Irritation	3.8483	3.8069	0.790	0.430
Credibility	3.4930	3.4758	0.259	0.796
Entertainment	3.8108	3.7597	0.674	0.501
Monetary Benefit	3.7622	3.9111	-1.928	0.054

advertising in Iran. So it would be valuable to identify more features which result in creating positive and also negative attitude toward mobile advertising.

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Appendix 1

Survey questionnaire.

I like to receive mobile advertising which

is relevant to my needs

is relevant to my job and activities

is relevant to my location

I, myself, chose it`s subject.

it`s receiving time chose by myself.

gives me a chance to take part in raffle for receiving message.

is short and to the point

revealed how I can stop receiving further messages.

obtained my permission in advance

written in Persian

is informative about new products and services

is informative about changes in products` prices

is informative about raffles and discounts

is funny

contains photo, sound, video

sent by one of my acquaintances (families, friends, college,...)

received from famous and credible company
