

EXPLORING CONSUMER ATTITUDES TOWARDS MOBILE ADVERTISING

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Abstract

India has the largest growing customer base of mobile users and mobile advertising, which has been defined as "Use of a non-fixed network to transmit product messages to wireless communications equipment such as cell phones or PDAs and thereby achieve the broadcasting of advertisements," by the Wireless Advertising Association (WAA) is all set to experience an explosive growth. Quarter 4 of 2010 saw a 233 percent increase over Q4 of 2009, indicating the potential the industry has. With more than a 100million Indians armed with mobiles, advertisers are fast realising that mobile phones are a very powerful channel which can be used to deliver relevant information to specific target. Their 24 by 7 usage pattern makes them an instant, real-time response channel, which when combined with the GPS enables advertisers to send location-specific information. However, the success of mobile advertising is very much dependent on the consumers' attitude towards the quality of advertising information, entertainment, irritation and credibility along with his mobile technology self-efficacy. Thus, this study seeks to investigate the effect of consumers' mobile application self-efficacy on their attitude towards mobile advertising. Primary data were collected on a sample of 435 respondents in the city of Lucknow aimed at gaining insights on consumer attitudes using an undisguised structured questionnaire. The questionnaire was derived from the 24 item scale, developed by Lee et al (2011). The model developed by Lee et al (2011) was tested in Indian setting and the results of the study are reported in this paper.

INTRODUCTION

India has the largest growing customer base of mobile users and **mobile advertising**, which has been defined as "Use of a non-fixed network to transmit product messages to wireless communications equipment such as cell phones or PDAs and thereby achieve the broadcasting of advertisements," by the Wireless Advertising Association (WAA) is all set to experience an explosive growth. Quarter 4 of 2010 saw a 233 percent increase over Q4 of 2009, indicating the potential the industry has. With more than a 100million Indians armed with mobiles, advertisers are fast realising that mobile phones are a very powerful channel which can be used to deliver relevant information to specific target. Their specific characteristics of reach, immediacy, interactivity, mobility and ubiquity (Vyas, 2011) coupled with the 24 by

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7 usage pattern makes them an instant, real-time response channel, which when combined with the GPS enables advertisers to send location-specific information. Further, it is a medium that enables the marketer to send personal and relevant messages to the customers.

LITERATURE REVIEW

Mobile advertising has rapidly been adopted due to technological advances and companies world-wide are using not just text messages, but also multimedia Messages in their mobile commercial communication. Advertising, defined as “the distribution of any kind of message or promotion that adds value to the customer while enhancing revenue for the firm” (Kalakota, & Robinson 2002) has found a medium that can focus on the desired customer group. Unprecedented opportunities for direct contact between advertisers and consumers (Hoffman and Novak, 1996) coupled with improved speed and ease of these interactions (Pavlou and Stewart, 2000) has added new dimensions to mobile advertising.

Mobile advertising defined as “any form of marketing, advertising or sales promotion activity aimed at consumers and conducted over a mobile channel” by the Mobile Marketing Association (2003) seeks to target well-defined potential customers with relevant matter with the intention of increasing the response-to-advertisement ratio (De Reyck and Degraeve, 2003). Mobile advertising is different from traditional advertising in that mobile advertising works in an environment containing wireless networks and mobile devices (Lee, 2002; Hu, 2011), leading to an increased emphasis on the consumers’ self-efficacy with regard to mobile technology usage. Efficacy of mobile advertising is determined to a large extent by the attitudes formed by the consumer. Consumers’ attitudes towards advertising pertain to the “psychological tendency formed after receiving an advertising message and undergoing an emotional response and cognitive thinking” (Xu, 2007). This impacts the attitude towards the advertised product/brand and hence, the purchase intention (Haghirian, 2007). Previous researches on consumer attitudes towards mobile advertising have identified informativeness, irritation, entertainment and credibility as the main factors moulding attitude towards advertising (Annexure 1).

Credibility

Advertising credibility is an important predictor of the consumers’ attitude towards mobile advertising. Credibility is the reaction towards the media content expressed at the mental perception level of the consumer which makes him trust or distrust the communicated message. Advertising credibility is defined as the “consumers’ perception of the truthfulness and believability of advertising in general” (Mackenzie and Lutz, 1989). This in turn is influenced to a great extent by the corporate credibility i.e the “extent to which consumers believe that a firm can design and deliver products and services that satisfy customer needs and wants” and which has been identified as having a positive impact on brand advertising and

purchase intent (Choi and Rifon, 2002). Haghirian et al. (2004) confirm that the credibility of message content will have a positive effect on consumers' assessment of mobile marketing and mobile advertising. We therefore infer:

Hypothesis 1: The more consumers perceive mobile advertising to be credible, the better their attitude towards that mobile advertising.

Informativeness:

Generating awareness is the primary aim of advertising and it is a crucial factor in the effectiveness of web advertising (Ducoffe, 1996). Advertising seeks to provide information to the potential customer not just about the product, services and ideas but also about new features, discounts, schemes and prices (Kotler and Keller, 2006). Providing information is one of the primary functions of advertising but this needs to be correct, relevant and timely (Siau, 2003). Petrovici and Marinov (2007) founded that product information acquisition is the primary personal use of advertising which influences general attitudes to advertising. Since, informativeness is considered as a particularly relevant factor in influencing consumer attitude towards mobile advertising, it is inferred that:

Hypothesis 2: The more consumers perceive mobile advertising to be informative, the better their attitude towards that mobile advertising.

Irritation:

Advertisers often use tactics that end up annoying the consumers. When advertising employs techniques that annoy, offend, or are overly manipulative, audiences are likely to perceive it as unwanted and irritating influence (Xu, 2006). Unrequested or mentally taxing information results in the customer feeling irritated towards the advertisement (Ducoffe, 1996). Similarly excessive information causes the receiver's attention to get diverted (Stewart and Pavlou, 2002) resulting in a feeling of irritation. Ducoffe (1995), in his study proposed that a feeling of irritation due to the advertisement would lead to poor advertising effectiveness. Hence, the following hypothesis is proposed:

Hypothesis 3: The more consumers perceive mobile advertising to be irritating, the worse their attitude towards that mobile advertising.

Entertainment:

The value of entertainment lies in its full ability to fulfill consumers' needs for "escapism, diversion, aesthetic enjoyment or emotional release" (McQuail, 1983). Brackett (2001) believes that entertainment is key factor associated with mobile advertising, and suggests that the content of messages must be concise and interesting in order to induce immediate attention in consumers. A feeling that advertising is interesting will affect consumers' attitude towards that advertising (Shavitt et al., 1998). A concise, funny message that easily captures the consumers' attention (Katterbach, 2002) is perceived more positively by the recipient. Therefore, it is inferred:

Hypothesis 4: The more consumers perceive mobile advertising to be entertaining, the better their attitude towards that mobile advertising.

Mobile Self-efficacy:

Self-efficacy implies an individual's level of belief that he or she has the ability to organize and perform a series of activities intended to achieve a result. Self-efficacy is a major factor affecting attitude and behavior. Self-efficacy represents an individual's judgment that he or she can complete a specific task, and is unconnected with the individual's actual skills. An individual's perceived self-efficacy will affect that person's behavior towards a specific task, amount of mental effort, and degree of persistence, and will ultimately influence the individual's actions (Bandura, 1997; Compeau and Higgins, 1995). Therefore:

Hypothesis 5: The higher consumers' mobile self-efficacy, the better their attitude towards mobile advertising.

RESEARCH METHODOLOGY

The study was conducted in summer 2011 over a period of eight weeks during which 435 mobile phone owners were interviewed the city of Lucknow using an undisguised structured questionnaire. The research instrument was divided into two parts. The first part had questions related to mobile advertising and the second part recorded the demographic details of the respondents. The questionnaire was derived from the 24 item scale (Annexure 2), developed by Lee et al (2011) and the model developed by them was tested in Indian setting. The responses were recorded on a five-point Likert scale ranging from "strongly agree" (1) to "strongly disagree" (5). These scales were reverse-coded where appropriate. The questionnaires were filled by the respondents in face-to-face interviews. The respondent profile is included in Table 1. Out of the 435 valid questionnaires, 54.7per cent respondents were male and 45.3per cent respondents were female. With regard to age groups, the highest percentage (31.5per cent) of the respondents were between 30 and 39 years old followed by those in the age group of 40-49 years. The respondents were quite evenly distributed across the age bands. Majority of the respondents, 42.8% were graduates, while 31.7per cent were post graduates and 25.2per cent respondents were professionally qualified.

Table 1: Demographic profile of respondents

	<i>N = 435</i>	<i>Percentage</i>
Gender	238	54.7
Male	197	45.3
Female		

	<i>N</i> = 435	<i>Percentage</i>
Age		
20-29 years	101	23.2
30-39 years	137	31.5
40-49 years	105	24.1
50-59 years	92	21.2
Educational Qualification		
Graduate	186	42.8
Post-graduate	138	31.7
Professional	111	25.5

Summary of Hypotheses

- H1: The more consumers perceive mobile advertising to be credible, the better their attitude towards that mobile advertising.
- H2: The more consumers perceive mobile advertising to be informative, the better their attitude towards that mobile advertising.
- H3: The more consumers perceive mobile advertising to be irritating, the worse their attitude towards that mobile advertising.
- H4: The more consumers perceive mobile advertising to be entertaining, the better their attitude towards that mobile advertising.
- H5: The higher consumers' mobile self-efficacy, the better their attitude towards mobile advertising.

DATA ANALYSIS AND FINDINGS

Correlation analysis (Table 2) results indicate that the factors are significantly related to the overall attitude towards mobile advertising. While informativeness, entertainment, credibility and mobile self-efficacy are positively related to the respondent attitude towards mobile advertising, irritation is negatively correlates to attitudes towards mobile advertising. These findings are consistent with the previous researches.

Table 2. Results of correlation analysis

	Informativeness	Entertainment	Irritation	Credibility	Mobile Self-Efficacy	M-Ad Attitude
Information	1					
Entertainment		1				
Irritation	-.104*	-.166**	1			
Credibility	.164**	.278**	-.086	1		

	Informativeness	Entertainment	Irritation	Credibility	Mobile Self-Efficacy	M-Ad Attitude
Mobile Self-Efficacy	.075	.095*	.055	.131**	1	
M-Ad Attitude	.221**	.393**	-.223**	.297**	.323**	1

* Correlation is significant at the 0.05 level (two-tailed).

**Correlation is significant at the 0.01 level (two-tailed).R

Results of stepwise regression analysis (Table 3) show the individual contributions of the affecting factors. The results indicate that credibility is a major factor which influences the attitude towards mobile advertising, having the highest overall marginal contribution of 28.8per cent. Credibility is closely followed by irritation, which explains 26.5per cent of additional variance and mobile self-efficacy contributing 23.4 per cent, which are also quite substantial contributions. Entertainment, on the other hand has a substantially low contribution to mobile advertising attitudes at 15.3per cent and informativeness surprisingly does not figure in the model as it does not make a significant contribution to attitudes towards mobile advertising.

Table 3: Results of regression analysis (Attitude towards Mobile-advertisements)

Model	β	R	R ²	ΔR	t	Sig.
Entertainment	.393	.393	.155	.153	8.905	.000
Entertainment, Mobile efficacy	.366 .288	.487	.237	.234	8.675 6.834	.000
Entertainment, Mobile efficacy Irritation	.334 .302 -.184	.519	.270	.265	7.968 7.274 -4.386	.000
Entertainment, Mobile efficacy Irritation Credibility	.292 .284 -.176 .163	.542	.294	.288	6.829 6.908 -4.256 3.841	.000

The results of t-test for respondent attitude towards mobile advertising are given in Table 4. the average respondent score on overall attitude towards mobile advertising was 3.198 on a five-point Likert scale, with 1 as the least favorable and 5 as most favorable. This is greater than the neutral score of 3 ($t = 89.153$, $p < 0.05$), which implies that the respondent attitudes towards mobile advertising are in general favorable.

Table 4: Results of t-test (attitude towards mobile advertising)

	T	Sig. (2-tailed)	Mean	95% confidence interval of difference	
				Lower	Upper
M-Ad Attitude	89.153	.000	3.198	3.127	3.268

The results of t-test (Table 5) show that respondents in general do not perceive mobile advertising as informative, entertaining and credible. On the other hand, they also do not seem to be much irritated by mobile advertisements. However, mobile self-efficacy helps in forming better attitudes towards mobile advertising.

Table 5: Results of t-test

	T	Sig. (2-tailed)	Mean	95% confidence interval of difference	
				Lower	Upper
Information	70.630	.000	2.723	2.647	2.798
Entertainment	55.277	.000	2.502	2.413	2.590
Irritation	65.952	.000	2.535	2.459	2.610
Credibility	76.761	.000	2.702	2.633	2.771
Mobile self-efficacy	84.278	.000	3.398	3.319	3.477

Independent t-tests were conducted to assess the differences between the attitudes of men and women. The results (Table 6) revealed that there is no difference between the attitudes of men and women regarding mobile advertising and neither is there any significant difference in terms of informative advertisement, entertainment, irritation, credibility and mobile efficacy. Previous studies are divided in their findings in this respect. While studies conducted by Mathew and Dambal (2010) reported women as perceiving greater irritation at mobile advertising, Okazaki (2007) reported they had a more favourable attitude towards it. The findings of current study are consistent with those of Saadeghvaziri and Seyedjavadin (2011) which reported that no specific differences were observed in the attitudes of male and female respondents towards mobile advertising.

Table 6: Gender wise comparison

	T	Sig. (2-tailed)	95% confidence interval of difference	
			Lower	Upper
M-Ad Attitude	.025	.980	-.140	.144
Information	1.522	.129	-.034	.270
Entertainment	.327	.744	-.149	.209
Irritation	.124	.901	-.142	.162
Credibility	.269	.788	-.158	.120
Mobile self- efficacy	.218	.828	-.142	.177

The relationship between attitude and demographic characteristics (age and educational qualifications) was explored by conducting one-way ANOVA testing. The ANOVA results for differences in age groups (Table 7) revealed that there are significant differences among the age groups with respect to their attitude towards mobile advertising, informative advertisement, entertainment, irritation and mobile efficacy. However, there were no differences in the age group with respect to the credibility of the mobile advertising. These findings suggest that the age group of the individual receiving the mobile advertisement impacts his attitude towards it. It may be that those in the younger age group would not be much irritated by the mobile advertisement and would have a favourable attitude towards it especially if it is entertaining and informative because they are likely to have greater mobile self-efficacy as compared to the older age groups. However, it can be seen that credibility of the mobile advertisement is perceived as important by all the age groups and there are no differences in this regard between them. The implication is strong for the advertiser to ensure that his mobile advertisement is seen as credible enough to ensure a favourable attitude towards it.

Table 7: One-way ANOVA analysis (age groups)

		Sum of Squares	df	Mean Square	F	Sig.
M_Ad_Attitude	Between Groups	22.441	3	7.480	14.626	.000
	Within Groups	220.432	431	.511		
	Total	242.873	434			
Informative	Between Groups	7.849	3	2.616	4.136	.007
	Within Groups	272.678	431	.633		
	Total	280.528	434			

		Sum of Squares	df	Mean Square	F	Sig.
Entertainment	Between Groups	6.956	3	2.319	2.631	.050
	Within Groups	379.793	431	.881		
	Total	386.748	434			
Irritation	Between Groups	16.303	3	5.434	8.920	.000
	Within Groups	262.585	431	.609		
	Total	278.888	434			
Credibility	Between Groups	2.139	3	.713	1.326	.265
	Within Groups	231.765	431	.538		
	Total	233.904	434			
Mobile_Efficacy	Between Groups	28.875	3	9.625	14.921	.000
	Within Groups	278.020	431	.645		
	Total	306.895	434			

Table 8: One-way ANOVA analysis (educational qualifications)

		Sum of Squares	df	Mean Square	F	Sig.
M_Ad_Attitude	Between Groups	.235	2	.117	.209	.811
	Within Groups	242.638	432	.562		
	Total	242.873	434			
Informative	Between Groups	1.557	2	.778	1.205	.301
	Within Groups	278.971	432	.646		
	Total	280.528	434			
Entertainment	Between Groups	1.276	2	.638	.715	.490
	Within Groups	385.473	432	.892		
	Total	386.748	434			
Irritation	Between Groups	2.020	2	1.010	1.576	.208
	Within Groups	276.867	432	.641		
	Total	278.888	434			
Credibility	Between Groups	.298	2	.149	.276	.759
	Within Groups	233.606	432	.541		
	Total	233.904	434			
Mobile_Efficacy	Between Groups	5.971	2	2.985	4.286	.014
	Within Groups	300.925	432	.697		
	Total	306.895	434			

ANOVA conducted for differences in attitude towards mobile advertising based on educational qualifications (Table 8) revealed that there were no significant differences. Further, there were statistically insignificant differences between graduates, post graduates and professionals for informative advertisements, entertainment, irritation and credibility. However, there were statistically significant differences between the groups for mobile self-efficacy.

DISCUSSION AND IMPLICATIONS

The current study investigated the attitude of consumers towards mobile advertising and other factors, like informativeness, entertainment, irritation, credibility and mobile self-efficacy. In general The study result indicates that of the proposed hypotheses, only “H2: The more consumers perceive mobile advertising to be informative, the better their attitude towards mobile advertising”, was not confirmed. The remaining four hypotheses were accepted. This finding is contrary to the findings of the previous studies but could mean that customers are not expecting detailed information from the mobile advertisement, hence, lower value attached to it. It is possible that mobile advertisements are being considered more in terms of providing a link between the product/service provider and the customer, rather than being looked as a mechanism for providing detailed product or service related information.

A major implication of the findings is in terms of mobile self-efficacy. Mobile self-efficacy has a 23.4per cent contribution in influencing attitudes towards mobile advertising. This when seen in light of the significant differences between age groups in mobile self-efficacy, implies that education and training needs for using mobile phones are likely to be different for different age groups. The post hoc tests confirmed that the age group 50-59 years differed in their mobile self-efficacy from the other groups. If extension activities or training services can be used to improve mobile self-efficacy, the mobile users are likely to have a better attitude towards mobile advertisements, hence, making them more receptive to mobile advertisements. Further, more than information, it is the credibility of the information provided that links closely with the attitude towards mobile advertising. This is consistent with the findings of the previous researches (Lee et al., 2011). Implications for the advertisers are to ensure credible offers and follow them up with sincerity.

Thus, it can be concluded that mobile advertising can be used by the advertiser but it needs to be more credible and entertaining to be well received. Further, it is not always irritating for the receiver and though information does not make a major contribution, it still needs to be credible for the receiver to form a favorable attitude.

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ANNEXURE

Annexure 1: Previous studies on factors affecting mobile advertising

Factor	Study
Irritation	Xu, 2007 Carroll et al. (2007) De Reyck and De Graeve (2003) Michael and Salter (2006) Tsang et al. (2004)
Credibility	Jelassi and Enders (2004) Goldsmith et al. (2000)
Informativeness	Ducoffe (1995) Kotler and Keller (2006)
Entertainment	Pietz and Storbacka (2007) Xu (2007) Kalakota and Robinson (2002)
Mobile Self-Efficacy	Lee et al (2011)

Annexure 2: List of statements

Informativeness
1. M-ad supplies relevant information on products or services.
2. M-ad provides timely information on products or services.
3. M-ad provides information on products or services when I need it.
Entertainment
4. M-ad is entertaining.
5. M-ad is enjoyable.
6. M-ad is pleasing.
Irritation
7. M-ad is irritating.
8. M-ad insults my intelligence.
9. There is too much M-ad.
Credibility
10. M-ad is credible.
11. M-ad is trustworthy.
12. M-ad is believable.
Mobile self-efficacy
I feel I am able to...
13. Use a mobile device to connect to the mobile Internet.
14. Use the mobile Internet to browse the World Wide Web.
15. Enter an URL to connect to a mobile web site.
16. Use a mobile web page search engine (such as Google) to search for information.
17. Click on a mobile web page hyper link.
18. Enter a keyword on a mobile web page to find information.
19. Send short message (SMS) or multimedia short messages (MMS).
20. Use the mobile Internet to send and receive e-mail and attach files.

Attitude toward M-ad
21. I like mobile advertising
22. Mobile advertising is a good application
23. Mobile advertising is a good marketing tool.
24. On the whole, my attitude towards mobile advertising is positive.