

Mobile Marketing: Examining the impact of Interest, Individual attention, Problem faced and consumer's attitude on intention to purchase

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Abstract

Mobile advertising, which is an area of mobile commerce, is a form of advertising that targets users of handheld wireless devices such as mobile phones and Personal Digital Assistants. In this study the researchers wants to gain an insight into the perception of mobile users towards mobile advertising and To find out Mobile advertising influences consumers purchase decision. The research design chosen for the study is descriptive.

The primary data was collected through a self administrated questionnaire which was originally developed for this purpose. Fifty questionnaires were distributed for the purpose of pre-testing the questionnaire's contents. A complete questionnaire was developed based on the comments collected during the pre-testing period. Convenient sampling has been employed with the questionnaires being collected from 425 respondents. Questions asked respondents to rate their degree of agreement using a 5-point Likert scale. The study was carried out in Madurai city, Tamilnadu, South India. Primary- stage sampling units were the mobile users. While the secondary stage sampling units were markets, shopping malls, institutions and localities of Madurai. Using Statistical Package for Social Science the following tests were carried out 1) Factor analysis 2) Multiple Regression and 3) Reliability Test. Based on the test results some of the findings were derived that will be significant and relevant to present Indian scenario

Key Words : Mobile Advertising, Shopping, Attitude

Introduction

Mobile advertising, which is an area of mobile commerce, is a form of advertising that targets users of handheld wireless devices such as mobile phones and Personal Digital Assistants. In Comparison with traditional advertising, the main advantage of mobile advertising is that it can reach the target customers anywhere anytime, in order to promote the selling of products or services. Mobile advertising has emerged as an integral part of any brand's marketing campaign today. It has become an important engagement tool for brands, and aims to fulfill the gap that traditional media has been unable to bridge. With the increasing popularity of the Mobile Internet, this form of marketing is

soon poised to achieve a significant reach. More than 500 million people in India now own mobile phones, and there are ample opportunities for content and service providers to generate mobile value added services (mVAS) revenues from this nascent market. The global mobile marketing industry is expected to grow to \$24 billion by 2013. According to industry reports, mobile advertising in India currently stands at around \$25 million and growing. A recent study by Nokia and TNS India put forth some startling facts as to why mobile advertising is destined to flourish in India. The report states that 18% of subscribers view mobile banner ads and, of those, 56% seek more information on the ads viewed. Further, 49% people opined that they did not mind viewing ads on their mobile phones. The 3G roll out in India will drive the use of content-rich applications, which will further drive the growth of mobile advertising.

LITERATURE REVIEW

Fatim Bamba, Stuart J. Barnes (2007) in their study examined the phenomenon of consumers' willingness to give permission to receive short message service (SMS) advertisements. The purpose of this research is threefold: to better understand the phenomenon of consumers' willingness to give permission to receive text message (SMS) advertisements, to provide empirical data that supports our understanding, and to develop and test a basic model of consumers' willingness to give permission to receive SMS advertisements **Gemma Roach(2009)** examined how a consumer's perception of the relative advantages, compatibility and complexity associated with mobile phone marketing and their involvement with their mobile, influenced their intention to accept marketing communication sent via this channel. **Hanna Komulainen, Tuija Mainela, Jaana Tahtinen, Pauliina Ulkuniemi(2007)**In their paper examined why retailers'

perceptions of the value of a novel technology-intensive mobile advertising service differ. This study suggests a categorization of customer-perceived value sub-elements in a novel technology-intensive business-to-business (b-to-b) service consisting of two outcome-level benefits, three process-level benefits, and two types of sacrifices, i.e. monetary and non-monetary **Jari Salo, Jaakko Sinisalo, Heikki Karjaluo(2008)** The purpose of the paper is to investigate an intentionally developed business network (IDBN) for mobile marketing (m-marketing). The IDBN for m-marketing is studied in the light of a literature review of m-marketing and IDBNs. **Matti Leppaniemi, Heikki Karjaluo (2008)** in their paper examined the effects of gender, age, income and employment status on consumer response to short message service (SMS)-oriented direct-response requests or a call-to-action tactic in a television advertisement or program, consumer's participation in SMS sweepstakes or other competitions, and consumer uptake of mobile services such as ring tones, logos, screensavers and wallpapers ordered by SMS message. **Sadia Sharmin Juena, Kamran Mirza[2008]** In their research analysis found that Mobile advertising is becoming a hot topic as wireless networking continues to develop and the number of mobile subscribers is increasing worldwide The purpose of this study, therefore, is to provide a better understanding on how mobile advertising can be utilized in B2C marketing. **Shintaro Okazaki(2005)** Although the wireless internet attracts more and more interest from marketers and researchers, there is little empirical evidence of multinational corporations' (MNCs) adoption of push-type mobile advertising in global markets. The aim of this study is to fill this research gap, by conducting an empirical survey of the perceptions of MNCs operating in Europe regarding SMS-based mobile advertising adoption.

Research Questions

- To gain an insight into the perception of mobile users towards mobile advertising.
- To find out Mobile advertising influences consumers purchase decision.

RESEARCH METHODOLOGY

The research design chosen for the study is descriptive. The primary data was collected through a self administrated questionnaire which was originally developed for this purpose. Fifty questionnaires were distributed for the purpose of pre-testing the questionnaire's contents. A complete questionnaire was developed based on the comments collected during the pre-testing period. Convenient sampling has been employed with the questionnaires being collected from 425 respondents. Questions asked respondents to rate their degree of agreement using a 5-point Likert scale. The study was carried out in Madurai city, Tamilnadu, South India. Primary- stage sampling units were the mobile users. While the secondary stage sampling units were markets, shopping malls, institutions and localities of Madurai.

An examination had been made from the reliability of the data to check whether random error causing inconsistency and in turn lower reliability is at a manageable level or not, by running reliability test. Amongst the reliability tests that were run, the minimum value of coefficient alpha (**Cronbach's alpha**) obtained was **0.810**. This shows that data has satisfactory internal consistency reliability. Using Statistical Package for

Social Science the following tests were carried out 1) Factor analysis 2) Multiple Regression and 3) Reliability Test.

The various factors that are taken to measure the effectiveness of mobile advertising are 1) Interest 2) Individual attention 3) Impact 4) Problem faced 5) Disturbance at work

FACTOR ANALYSIS

KMO and Bartlett's Test

The individual statement of mobile advertising was examined using factor analysis based on 16 individual statements and the reliability of the subsequent factor structure was then tested for internal consistency of the grouping of the items.

Table 1

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.810
Bartlett's Test of Sphericity	Approx. Chi-Square	716.015
	df	120
	Sig.	.000

Kaiser – Meyer – Olkin measure of sampling adequacy index is 0.810, which indicates that factor analysis is appropriate for the given data set. KMO measure of sampling adequacy is an index to examine the appropriateness of factor analysis. High values between 0.5 and 1.0 indicate factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate.

Bartlett’s Test of Sphericity is used to examine the hypothesis that the variables are uncorrelated. It is based on Chi-Square transformation of the determinant of

correlation matrix. A large value of the test statistic will favour the rejection of the null hypothesis. In turn this would indicate that factor analysis is appropriate.

Bartlett’s test of Sphericity Chi-square statistics is 716.015, which would mean the 16 statements are correlated and hence as concluded in KMO, factor analysis is appropriate for the given data set.

Table 2 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
Statements	1	3.394	21.211	21.211	3.394	21.211	21.211
	2	2.275	14.216	35.427	2.275	14.216	35.427
	3	1.434	8.960	44.387	1.434	8.960	44.387
	4	1.268	7.927	52.314	1.268	7.927	52.314
	5	1.133	7.082	59.396	1.133	7.082	59.396
	6	.851	5.319	64.715			
	7	.825	5.155	69.870			
	8	.762	4.763	74.633			
	9	.708	4.427	79.060			
	10	.670	4.187	83.247			
	11	.652	4.076	87.322			
	12	.527	3.296	90.619			
	13	.505	3.156	93.774			
	14	.393	2.456	96.230			
	15	.350	2.189	98.419			
	16	.253	1.581	100.000			

Extraction Method: Principal Component Analysis.

Eigen Value represents the total variance explained by each factor. Percentage of the total variance attributed to each factor. One of the popular methods used in Exploratory Factor Analysis is Principal Component Analysis, Where the total variance

in the data is considered to determine the minimum number of factors that will account for maximum variance of data.

Table 3 Rotated Component Matrix

	Component				
	1	2	3	4	5
Whether there is a link between interest and message	.768				
Mobile advertising plays a vital role in marketing	.683				
Willingness to receive message	.642				
Impact of Mobile ads is positive	.568				
Too many information about an advertisement will cause confusion	.515				
Mobile Advertising suits personal needs		.883			
Mobile Advertising is more informative		.844			
Messages are mostly reached at right time		.635			
Mobile ads have a positive impact among the consumers			.782		
Its easy to recall brand ads			.731		
Mobile ads generates recall of sale			.648		
Mobile ads generate recall of products or services advertised			.513		
Reading the ads through mobile is time consuming				.791	
Due to Mobile advertising loss of privacy take place				.658	
Deleting junk ads without going through it				.609	
Ads doesn't cause disturbance at work					.831

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 Rotation converged in 6 iterations.

Interpretation of factors is facilitated by identifying the statements that have large loadings in the same factor. The factors can be interpreted in terms of the statement that

loads high on it. The factors of effectiveness of mobile advertising comprises of 16 individual statements. Out of 16 statements 6 individual statements contributes more towards the effectiveness of mobile advertising they are 1) Mobile Advertising is interesting 2) it suits to personal needs 3) Mobile advertising is informative 4) Mobile advertising creates positive impact among the consumers 5) Easy to recall and 6)it does not cause disturbance at work.

Multiple Regressions – Based on Emerged Components from Factor Analysis

Table 4
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775	.775	.763	.288

Predictors: (Constant), Disturbance at work, Interest, Individual attention, Impact, Problem faced

The above model summary table shows R-Square for this model is 0.775. This means that 77.5 percent of the variation in overall effectiveness of mobile advertising (dependent variable) can be explained from the 5 independent variables. The table also shows the adjusted R-square for the model as .763.

Any time another independent variable is added to a multiple regression model, the R-square will increase (even if only slightly). Consequently, it becomes difficult to determine which models do the best job of explaining variation in the same dependent variable. The adjusted R-square does just what its name implies. It adjusts the R-square by the number of predictor variables in the model. This adjustment allows the easy

comparison of the explanatory power of models with different numbers of predictor’s variable. It also helps us to decide how many variables to include in our regression model.

Table 5
Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-.061	.151		-.407	.685
	Interest	.320	.028	.440	11.434	.000
	Individual attention	.184	.023	.278	7.945	.000
	Impact	.282	.028	.365	10.040	.000
	Problem faced	.163	.025	.249	6.393	.000
	Disturbance at work	.083	.018	.157	4.504	.000

Dependent Variable: Mobile Advertising

To determine if one or more of the independent variables are significant predictors of overall effectiveness of mobile advertising , we examine the information provided in the coefficient table. From the above 5 independent variables all of them are statistically significant. The standardized coefficient beta column reveals that interest has a beta coefficient .440, which is highly significant (.000). Individual attention has a beta coefficient .278, which is highly significant, (.000). Impact has a beta coefficient .365, which is highly significant,(.000). Problem faced has a beta coefficient .249, which is highly significant, (.000) and disturbance at work has a beta coefficient .157, which is highly significant, (.000).Mobile advertising is really creating interest in the minds of the

consumers. It really has an impact over the purchase decision of the consumers. Next important findings from the study is mobile advertising doesn't cause disturbance at work. So in the years to come marketers will keenly focus on mobile advertisement to a greater extent to market their products.

Conclusion

The objective of this study was to investigate the influence of mobile marketing as a communication tool on generating consumers' purchase intention and to ensure consumers attitudes toward such strategy. Mobile operators are called upon to organize their SMS flows in such a way as not to give consumers the impressions that this flow as a burden on them. One way to resolve this problem is to personalize such messages in order to encourage consumers to participate in permission-based advertising programs.

From this study we can understand that mobile advertising is creating interest in the minds of the consumers and it is not causing disturbance to them. Mobile advertising is really having an impact over the purchase decision of the consumers. Mobile retailers are also encouraged to offer sales promotion to consumers who express the desire to receive their product advertisements through SMS messages.

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