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Analysing impact of mobile advertisement on consumer attitude: A case study of consumers of Udaipur city

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Abstract
Mobile is the most important tool for providing help taking feedback and improves the product and services for the better society. This research aimed at identifying that whether mobile advertising put any impact over the attitude and later on behaviour of the consumer's and can turn or shift consumers purchase intention and whether or not the consumers built their attitude with the mobile advertising. Further to assess the mobile mode of advertisement on consumer of Rajasthan a survey was conducted with Interview Schedule with target respondents living in the rural and urban area of Udaipur district. The sample for the survey has covered 300 respondents obtained from cross-sectional method. To measure the impact of mobile advertisement on consumer attitude and consumer behaviour one sample t and multiple regression method were used. The results have revealed that Customer believe that Messages regarding apps download, free membership, video sharing attracts them. Furthermore, four variables i.e., Marketing messages sometime save money, Marketing messages improve my shopping efficiency, I am concern about loss of personal information via mobile phone and I like to receive messages on time slots allowed by me explains the variance of Mobile advertisement as modern mode of advertising.

Keywords: Mobile advertisement, marketing, consumer attitude and consumer behaviour

Introduction
Mobile advertising is the communication of products or services to mobile device and smartphone consumers. The mobile advertising spectrum ranges from short message service (SMS) text to interactive advertisements. Mobile advertising is a subset of mobile marketing; it targets users according to specified demographics. Mobile networks identify related mobile profiles and preferences and displays corresponding advertisements when consumers download and uses data services like games, applications (apps) or ring tones. The Mobile Marketing Association (MMA) is a non-profit global trade association that fosters mobile marketing and advertising technologies. It regulates associated terms, specifications and best practices. MMA also oversees global mobile advertising units in messaging, applications, video, television and on the Web.
Mobile advertising can be done as Mobile Web (Text tagline advertisement, mobile Web banner advertisement, WAP 1.0 banner advertisement, rich media mobile advertisement), Multimedia Messaging Service (Short text advertisement, long text advertisement, banner advertisement, rectangle advertisement, audio advertisement, video advertisement, full advertisement), Mobile Video and TV Advertising Units (Advertisement breaks, linear Advertisement breaks, nonlinear Advertisement breaks, interactive mobile video and TV advertisement), Mobile Applications (In-app display advertising units, integrated advertisement and branded mobile applications, sponsored mobile applications). According to Gartner, the mobile advertising market will continue to be driven by smartphones and tablet devices, which will enhance growth to $19 billion by 2015.
The current research has included this area as it is of importance among the new modes of advertisement. The research was undertaken with the following objectives:
1. To analyse the present state and growth of mobile marketing in Rajasthan.
2. To examine the customers' attitude towards mobile advertising.
3. To analyse the purchase intention of the respondents as per mobile marketing.

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In the current era the companies can quickly and easily respond to customers' complaints by sending a text message for improving their offerings to stay ahead of the competition. This is a critical opportunity for businesses to strengthen their relationship with the customers, something that some companies don't understand yet and see customers' feedbacks as a bad thing and avoid them.

Reviews of literature

Atkinsona *et al.*, (2014) [1] in their paper on 'Search Engine Advertisement Design Effects on Click-Through Rates,' explained that the publishing models and article dates explained. This article reports the relationship that specific elements of search engine advertisements (SEAs) have with click-through rates (CTRs) within Google Ad Word Campaigns. In total, 1,880 separate advertisements with more than 57 million impressions and 185,000 click-throughs were analysed. The main finding is that some elements have both positive and negative relationships with CTRs depending on where they are placed within the advertisement. An implication is that the section of the advertisement in which an element appears should be taken into consideration when devising SEAs and when evaluating the relationship between elements and CTRs. They found the elements with mostly a positive effect on CTRs were brand, value "puffery," and price; and those with a negative effect were promotions and questions. Limitations of the study and future research opportunities are given.

Beneke (2011) [3] in their paper on 'towards a conceptual model: a path analysis of fundamental relationships affecting mobile advertising effectiveness,' aimed to establish that how attitudes towards mobile advertising ultimately influences purchase intention. A conceptual model was developed, linking the constructs attitudes, attention, involvement and purchase intention in the context of mobile advertising. The model was tested with a sample of 250 young adults using Partial Least Squares (PLS) analysis. Findings indicated that a positive relationship exists between a consumer's attitude towards mobile advertising and his or her purchase intention. However, this relationship was found to be partially mediated by the attention that a consumer pays to the mobile advertisement, as well as his or her involvement in it.

Butt *et al.*, (2014) [3] In their paper on 'Achieving energy efficient advertisements traffic for smartphones, 'expressed that the mobile advertising has now become a business model for free applications of smartphones, which leads to tremendous growth of advertisement traffic. Experiment shows that data traffic of advertisements (ad) is higher than non-advertisement data traffic in application (app). They present a detailed look at advertising traffic for smartphones and find that the main factor of increasing the volume of advertisement traffic is the redundant user context information contained in HTTP parameters for targeted advertising. They propose to reduce redundant user information in payload of HTTP packets by setting up context information related to the users that can save approximately 94% in payload size in ads traffic. This proposal can decrease signaling overhead and battery consumption in smartphones.

Çeltek (2010) [4] in his paper on 'Mobile advergames in tourism marketing,' expressed that in recent years, the effectiveness of traditional communication techniques has been diminishing and marketers have sought more creative practices to attract consumers. The main purpose of this study was to provide an understanding of the qualities and potentials of the mobile adver-game as an advertising and marketing tool for the tourism industry. The study had focused on the mobile adver-game practices in the tourism industry with a content and SWOT analysis. The results showed that the games were successful in branding and city integration in game, but ineffective in viral marketing as very expensive devices are needed to play these games

Chang (2013) [7] in his paper on 'Age matters: Short Message Service advertising reading behaviours', conducted a study for initial investigation of two reading behaviours related to Short Message Service (SMS) advertising (i.e., when an advertisement is read and how much of an advertisement is read) across different age groups. The results showed that for most age groups, expectation is the most influential predictor of when a message is read, whereas perceived relevance is the most influential predictor of how much of a message is read. Different age groups display similar reading behaviours, but the mechanisms underlying the reading behaviours differ across age groups. These findings suggest that customised marketing strategies for different age segments are necessary for successful SMS advertising campaigns

Cleff. (2007) [28] in his paper on 'Who's (Should be) the King of the Castle?,' explained that the emergence of the wired Internet and mobile telecommunication networks is creating new opportunities for advertisers to generate new revenue streams through mobile users. As consumer adoption of mobile technology continues to increase, it is only a question of time when mobile advertising becomes an important part of marketing strategies. The development of mobile advertising, however, will be dependent on acceptance and usability issues in order to ensure permission-based advertising. Growing concerns about the protection of the users' privacy have been raised since mobile advertising may become extremely intrusive practices in an intimate personal space. This article focuses on the evaluation of legal problems raised by this novel form of advertising. It is assumed that a technological design, which is in line with the legal framework, will ensure that the benefits of mobile advertising and the consumer willingness to accept mobile advertising will increase.

Coursaris & Sun (2012) [14] in their paper on 'Antecedents and consequents of a mobile website's interactivity,' explained that the value proposition of mobile technology for education is expected to grow as forecasts speak of mobile internet users exceeding desktop internet users by 2014. A key concern for higher education administrators will be how to implement a mobile website that attracts and retains students in its use. To answer this question, a scenario-based study of 288 USA college students was conducted involving two wireframes of a mobile website design varying only in its degree of interactivity. A PLS-based data analysis offered support for the positive effects of interactivity on the perceived usefulness, ease of use, and enjoyment of the university's mobile website, which in turn positively influenced their intention to use it. The measurement model offered high explanatory power (47% of the variance in the behavioral intention to use the university's mobile website was explained by its three antecedents). Implications for both theory and practice are also discussed.

Coursaris *et al*, (2012) [15] in their paper on 'Exploring antecedents of SMS-based mobile advertising perceptions,' revealed that mobile advertising study conducted with college students evaluated the effect of a mobile advertisement's message length on the receiving mobile user's perceptions of informativeness, entertainment and consequent attitude toward the advertisement, as well as cultural, gender or age differences. A PLS data analysis indicates positive effects of mobile ads' message length on the perceived informativeness and entertainment of the mobile ad, which in turn positively influence both attitude toward the mobile ad and the mobile user's intention to learn more about the advertised brand. The model has high explanatory power. Implications of click through intentions on e-finance are discussed.

Drossosa, *et al.*, (2007) [17] in their paper on 'Determinants of Effective SMS Advertising: An Experimental Study,' revealed that the mobile advertising has become one of the most popular applications in mobile commerce, particularly in the form of text advertising through SMS (Short Messaging Service). However, in the study of mobile advertising little is known regarding the effectiveness of SMS advertising and the factors contributing to its success. This research investigates the significance of a number of factors associated with SMS advertising effectiveness through an experimental study. The findings indicate that incentive, interactivity, appeal, product involvement, and attitude toward SMS advertising in general directly influence attitude toward the advertisement, attitude toward the brand, and purchase intention. The results of the study suggest that a stronger focus on these factors is necessary to improve the effectiveness of SMS advertising campaigns.

Gao & Zang (2016) [18] in their paper on 'An empirical examination of users' adoption of mobile advertising in China,' made an evaluation using survey data collected from 302 receivers of mobile advertising in China. Consumers' attitudes toward mobile advertising and incentives explain about 80 percent of consumers' intention to receive mobile advertisements. In addition, entertainment, credibility, personalization and irritation all have direct effects on consumers' attitudes toward mobile advertising; the effect of entertainment is quite strong. Both theoretical and practical implications of this research are discussed.

Gaoa *et al.*, (2010) [25] in their paper on 'Measuring perceived interactivity of mobile advertisements,' revealed that user age is negatively correlated with perceived interactivity and years using the Internet are positively correlated with perceived interactivity. Young people with more Internet experience are more likely to perceive interactivity of mobile advertisements.

Gaoa *et al.*, (2009) [26] in their paper on 'Perception of Interactivity: Affects of Four Key Variables in Mobile Advertising,' showed that the number of user control options and the customizability of advertisements have significant influences on users' perception of interactivity. The more options a message advertisement provides, the more interactive the participants perceive the advertisement; a customizable game advertisement is perceived as more interactive than an uncustomizable game advertisement. But no significant effects of presenting instructional information of mobile Web advertisements and including humorous elements were found. Finally, perceived interactivity was found a strong predictor of attitude toward mobile advertisement.

Hsiaoa & Changa (2014) [27] in their paper on 'Understanding consumers' continuance intention towards mobile advertising: a theoretical framework and empirical study,' conducted an empirical study consisting of an online survey of 508 consumers who had experience with mobile advertising. The results show that perceived value, perceived usefulness, and satisfaction all directly influence continuance intention. Furthermore, consumer satisfaction has a crucial intervening role in the relationships that perceived value, perceived usefulness, and confirmation have with continuance intention. The theoretical and practical implications of the findings are discussed.

Hsieha & Hoa (2009) [20] in their paper on 'Fitness effects of STM ability and advertisement representation type on the m-commerce environment' explained that if the short-term memory capability tendency is text, it is better to adopt SMS for advertisement representation; and if the short-term memory capability tendency is picture, if is better to adopt MMS for advertisement representation. In contrast, using SMS as the advertisement representation for customers with picture-oriented short-term memory capability tendency or using MMS as the advertisement representation for customers with text-oriented short-term memory capability tendency results in inferior advertisement effect.

Huang *et al.*, (2014) [21] in their paper on 'The personalized context-aware mobile advertisement system uses a novel approaching detection method over cellular networks,' revealed that with the rapid development of smartphones and personal tablet computers, it brings a greatly growing rate of ubiquitous applications for location-based services (LBS). One famous LBS is the mobile advertisement. Approaching detection method (ADM) and context-aware ad targeting method (CAADTM) are used for the mobile advertisement. ADM can find some point of interests that a user is approaching; CAADTM pushes advertisements that satisfy user's requirement based on the user's context, that is, user's profile, current time, current position, and so on. Their experimental results have shown ADM has the good hit rate to determine those point of interests that a user is approaching within the 150-m radius of the approaching range, and CAADTM has the good hit rate of finding appropriate advertisements that a user prefers through the favorite content table filtering, the annoying content table filtering, and the advertisement clicking feedback.

Khanha & Haub (2007) [24] in their paper on 'Preferred Appeals as a Reflection of Culture: Mobile Phones Advertising in Vietnam,' conducted the study for an initial step to consider whether international brands should create global images or tailor the images to the local culture. Its objective is to explore the preferences of Vietnamese consumers on advertising appeals related to mobile phones and to see if those preferences reflect specific dimensions of the Vietnamese culture. Survey findings indicate that the consumers' preferences for advertising appeals do reflect the Vietnamese culture in power distance, masculinity and uncertainty avoidance. However, appeals related to collectivity and emotionality are less preferred to individuality and rationality, respectively. Differences among subgroups of consumers in terms of gender, age and price segments have also been identified.

Kima *et al.*, (2010) [29] in their paper on 'Perceived Effectiveness and Business Structure among Advertising Agencies: A Case Study of Mobile Advertising in South Korea,' revealed that mobile advertising has become a new

form of marketing communications in recent years as mobile phones became ubiquitous in many countries. While the consumer aspect of mobile advertising has attracted much attention, few studies have touched on the business aspect of this new advertising medium. The present paper explores the status and trends of mobile advertising through in-depth personal interviews with the advertising practitioners in one of the leading mobile economies in the world, South Korea. Specifically, it addresses the current practices of mobile advertising, the business structure of mobile advertising market, and how mobile advertising is evaluated by practitioners.

Research methodology
Data source
This research work is in the form of empirical and exploratory study for which the information was gathered from the Primary sources.

Primary Data
For primary data we were adopt a survey method by Interview Schedule of target respondents living in the rural and urban area of Udaipur district. The sample for the survey has covered 300 respondents obtained from cross-sectional method. The questions asked includes the data of demographical variables, close ended 5 point Likert scale (Strongly disagree to strongly agree) and open ended questions.

Type of sample
Young adults (Millennials) are the predominant users of mobile digital applications such as Mobile and Social Network Sites (Du Chenne, 2011 [31]; Smith, 2012 [32]; Bolton et al., 2013 [33]; Wronski and Goldstruck, 2013 [34]) the sample were selected from them to investigate attitudes towards mobile media, and attitudes by a majority studies (Orpana and Tera, 2011 [35]; Vanden Bergh et al., 2011 [36]; Bannister et al., 2013 [37]; Persuad, 2013 [38]). Yet, the researcher believed that it was imperative to select a sample that included a broader spectrum of Millennials like more information on demographics and life status. Hence, the research population comprised of young employed individuals, students of Udaipur city.

Universe of study
The current study includes total number of internet users, mobile media users and smart phone users.

Sample size
For the purpose of data collection all 11Tehsils including Girwa, Gogunda, Jhadol, Kherwara, Kotra, Lasadiya, Mavli,

Rishabhdeo, Salumbar, Sarada and Vallabhnagar of Udaipur were included in the research with the Udaipur city itself. 300 Interview schedules were used out of which 150 each were taken from rural and urban area covering low income class, middle income class and high income class with male and female both.

Data Analysis Tools
Data analysis typically entails the editing and reduction of data into more manageable portions in order to create summaries, detect patterns and apply statistical methods with the express purpose of interpreted data to answer the RQ at hand (Blumberg et al., 2011) [30]. The data were examined via statistical software known as SPSS (version 19). However, all of the questionnaires were first meticulously examined in terms of correctness and completeness. The statistical techniques that were used for data analysis include Mean value tests (t-tests), correlation, ANOVA and multiple regression analysis.

Customer Demographics- summary
The Customer Demographics- summary is shown in table-1 as under.

Table 1: Customer Demographics- summary

	Count	Percent
Gender		
Male	150	50%
Female	150	50%
Age		
15-24	130	43.33%
25-34	110	36.67%
35-above	60	20.00%
Occupation		
Student	45	15%
Employed	113	37.7%
Business	142	47.3%
Education		
Undergraduate or lower	242	80.7%
Post Graduate	58	19.3%
Income		
(Low) 0-10,000	98	32.7%
(Middle) 10,000-25,000	102	34.0%
(High)Above 50,000	100	33.3%

Mobile advertising
In this part it is analysed that the customers have favourable attitude towards mobile advertising or not. For this purpose independent variables were identified which are listed in table-2 as under:

Table 2: Mobile advertising dimensions

Dimensions	Variable Name
Mobile advertisement give timely information related to market offers	Mob_ad1
Receiving mobile advertisement is pleasant and enjoying	Mob_ad2
Mobile messages should suit my interest areas	Mob_ad3
I would like to receive messages according to my location	Mob_ad4
Mobile advertisement helps to reduce time to search products	Mob_ad5
Marketing messages sometime save money	Mob_ad6
Marketing messages improve my shopping efficiency	Mob_ad7
Mobile marketing annoy/irritates me	Mob_ad8
Mobile marketing does not fit my shopping style	Mob_ad9
Messages regarding apps download, free membership, video sharing attracts me	Mob_ad10
I would feel comfortable on receiving advertisement from known companies	Mob_ad11

I am concern about loss of personal information via mobile phone	Mob_ad12
I would feel comfortable if prior permission was taken before sending offers	Mob_ad13
I like to receive messages on time slots allowed by me	Mob_ad14
Overall, I like mobile advertising	Mob_ad15
I would like to receive advertisement on mobile phone	Mob_ad16
I welcome to receive advertisement while surfing internet	Mob_ad17

To analyse the data hypothesis has been formulated as under:

H1: The customers have favourable attitude towards mobile advertising.

Data is gathered from structure questionnaire has been tested using one sample 't' test. Results are presented in table 3 as under.

Table 3: 't' test result-mobile advertising

a. One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Mob_ad1	300	2.3933	.92093	.05317
Mob_ad2	300	2.1400	.80575	.04652
Mob_ad3	300	2.6533	1.25369	.07238
Mob_ad4	300	4.1200	.74887	.04324
Mob_ad5	300	3.8200	.96819	.05590
Mob_ad6	300	2.6367	1.43464	.08283
Mob_ad7	300	2.4100	.92272	.05327
Mob_ad8	300	2.1433	.79891	.04612
Mob_ad9	300	2.6567	1.25860	.07267
Mob_ad10	300	4.0667	.81513	.04706
Mob_ad11	300	3.7633	1.01196	.05843
Mob_ad12	300	2.0533	.85220	.04920
Mob_ad13	300	2.4067	.94034	.05429
Mob_ad14	300	2.1400	.80575	.04652
Mob_ad15	300	2.6533	1.25369	.07238
Mob_ad16	300	4.1200	.74887	.04324
Mob_ad17	300	3.8200	.96819	.05590

b. One-Sample Test						
Test Value = 4						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Mob_ad1	-30.218	299	.000	-1.60667	-1.7113	-1.5020
Mob_ad2	-39.983	299	.000	-1.86000	-1.9515	-1.7685
Mob_ad3	-18.605	299	.000	-1.34667	-1.4891	-1.2042
Mob_ad4	2.775	299	.006	.12000	.0349	.2051
Mob_ad5	-3.220	299	.001	-.18000	-.2900	-.0700
Mob_ad6	-16.460	299	.000	-1.36333	-1.5263	-1.2003
Mob_ad7	-29.846	299	.000	-1.59000	-1.6948	-1.4852
Mob_ad8	-40.253	299	.000	-1.85667	-1.9474	-1.7659
Mob_ad9	-18.487	299	.000	-1.34333	-1.4863	-1.2003
Mob_ad10	1.417	299	.158	.06667	-.0259	.1593
Mob_ad11	-4.051	299	.000	-.23667	-.3516	-.1217
Mob_ad12	-39.565	299	.000	-1.94667	-2.0435	-1.8498
Mob_ad13	-29.348	299	.000	-1.59333	-1.7002	-1.4865
Mob_ad14	-39.983	299	.000	-1.86000	-1.9515	-1.7685
Mob_ad15	-18.605	299	.000	-1.34667	-1.4891	-1.2042
Mob_ad16	2.775	299	.006	.12000	.0349	.2051
Mob_ad17	-3.220	299	.001	-.18000	-.2900	-.0700

Table-3 for 't' test result presented with the observed *t*-value ("t" column), the degrees of freedom ("df"), and the statistical significance (p-value) ("Sig. (2-tailed)") of the one-sample t-test. The P value for t-value is <0.05 which confirm that the mean is significantly different from hypothesized mean, hence from mean value analysis and the descriptive statistics, it can be concluded customers are not have very positive perception towards mobile advertising. Customers like to receive messages and mobile advertisement according to their location and time as they believe that mobile advertisement help to reduce time to search products. Messages regarding apps download, free membership, video sharing attract customers and they would feel comfortable on receiving advertisement from known companies. However customers are less positive about information quality provided by mobile devices, they do not find mobile advertisements are pleasant, interesting and enjoying. Moreover, customers do not consider mobile devices to increase their shopping efficiency and perceive that Mobile marketing does not fit my shopping style.

Multiple regression of Mobile marketing
As per the objective (To investigate the influence of behavioural attitudes of Youth towards modern mode of advertising on purchase intention) the agreement of the respondents related with the various areas are checked with the broader hypothesis.

At third stage the perception of the respondents were sought in relation to factors affecting mobile marketing from the new modes of advertisement. The following hypothesis was developed:

H3 (3): Modern mode of advertisement (mobile marketing) influence purchase intention of Youth
To analyse the above hypothesis at first stage key variables in mobile marketing were identified and multivariate regression analysis has been used with SPSS-19 software and results were shown in table 4 as under:

Table 4: Multiple regression analysis of Mobile marketing

a. Descriptive Statistics					
Variables	**Mean**	**Std. Deviation**	**N**	**Pearson Correlation**	**Sig. (1-tailed)**
Mob_ad	2.5733	1.26621	300	1.0	.
Mob_ad1	2.3933	.92093	300	.018	.377
Mob_ad2	2.1400	.80575	300	.095	.051
Mob_ad3	2.6533	1.25369	300	-.12	.018
Mob_ad4	4.1200	.74887	300	-.03	.259
Mob_ad5	3.8200	.96819	300	-.09	.045
Mob_ad6	2.6367	1.43464	300	.124	.016
Mob_ad7	2.4100	.92272	300	.170	.002
Mob_ad8	2.1433	.79891	300	.100	.041
Mob_ad9	2.6567	1.25860	300	-.05	.156
Mob_ad10	4.0667	.81513	300	.073	.104
Mob_ad11	3.7633	1.01196	300	.072	.106
Mob_ad12	2.0533	.85220	300	.412	.000
Mob_ad13	2.4067	.94034	300	.014	.403
Mob_ad14	2.1400	.80575	300	.095	.051
Mob_ad15	2.6533	1.25369	300	-.121	.018
Mob_ad16	4.1200	.74887	300	-.038	.259
Mob_ad17	3.8200	.96819	300	-.098	.045

b. Variables Entered/Removed[a]			
Model	**Variables Entered**	**Variables Removed**	**Method**
1	Mob_ad12	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Mob_ad7	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	Mob_ad6	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	Mob_ad14	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Mob_ad

c. Model Summary									
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Change Statistics**				
					R Square Change	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.412[a]	.169	.167	1.15587	.169	60.814	1	298	.000
2	.441[b]	.194	.189	1.14043	.025	9.122	1	297	.003
3	.459[c]	.211	.203	1.13075	.016	6.109	1	296	.014
4	.472[d]	.223	.212	1.12367	.012	4.743	1	295	.030

a. Predictors: (Constant), Mob_ad12
b. Predictors: (Constant), Mob_ad12, Mob_ad7
c. Predictors: (Constant), Mob_ad12, Mob_ad7, Mob_ad6
d. Predictors: (Constant), Mob_ad12, Mob_ad7, Mob_ad6, Mob_ad14

d. ANOVA[e]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	81.249	1	81.249	60.814	.000[a]
	Residual	398.138	298	1.336		
	Total	479.387	299			
2	Regression	93.113	2	46.556	35.797	.000[b]
	Residual	386.274	297	1.301		
	Total	479.387	299			
3	Regression	100.923	3	33.641	26.311	.000[c]
	Residual	378.463	296	1.279		
	Total	479.387	299			
4	Regression	106.912	4	26.728	21.169	.000[d]
	Residual	372.474	295	1.263		
	Total	479.387	299			

a. Predictors: (Constant), Mob_ad12
b. Predictors: (Constant), Mob_ad12, Mob_ad7
c. Predictors: (Constant), Mob_ad12, Mob_ad7, Mob_ad6
d. Predictors: (Constant), Mob_ad12, Mob_ad7, Mob_ad6, Mob_ad14
e. Dependent Variable: Mob_ad

e. Coefficients[a]										
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	1.317	.174		7.556	.000					
Mob_ad12	.612	.078	.412	7.798	.000	.41	.41	.41	1.00	1.00
2 (Constant)	.812	.240		3.384	.001					
Mob_ad12	.604	.077	.407	7.804	.000	.41	.41	.40	.999	1.00
Mob_ad7	.216	.072	.157	3.020	.003	.17	.17	.15	.999	1.00
3 (Constant)	.537	.263		2.043	.042					
Mob_ad12	.613	.077	.413	7.980	.000	.41	.42	.41	.997	1.00
Mob_ad7	.198	.071	.145	2.786	.006	.17	.16	.14	.989	1.01
Mob_ad6	.113	.046	.128	2.472	.014	.12	.14	.12	.988	1.01
4 (Constant)	.147	.316		.465	.643					
Mob_ad12	.620	.076	.418	8.116	.000	.41	.42	.41	.995	1.00
Mob_ad7	.202	.071	.147	2.848	.005	.17	.16	.14	.989	1.01
Mob_ad6	.110	.046	.124	2.408	.017	.12	.13	.12	.987	1.01
Mob_ad14	.176	.081	.112	2.178	.030	.09	.12	.11	.996	1.00

a. Dependent Variable: Mob ad

Discussions

The final Regression model with 4 independent variables (Mob_ad12, Mob_ad7, Mob_ad6 and Mob_ad14) explains almost 21.2% of the variance of mobile marketing as modern mode of advertising. Also, the standard errors of the estimate has been reduced to 1.12367, which means that at 95% level, the margin of errors for any predicted value of mobile media marketing can be calculated as ± 2.2023932 (1.96 X 1.12367). The four regression coefficients, plus the constraints are significant at 0.05 levels. The impact of multi colinerarity in the 4 variables is substantial. They all have the tolerance value less than 0.996, indicating that only below 1% of the variance is accounted for by the other variables in the equation.

Conclusion

The ANOVA analysis provides the statistical test for overall model fit in terms of F Ratio. The total sum of squares (479.387) is the squared error that would accrue if the mean of mobile marketing has been used to predict the dependent variable. Using the values of Marketing messages sometime save money, Marketing messages improve my shopping efficiency, I am concern about loss of personal information via mobile phone and I like to receive messages on time slots allowed by me (Mob_ad12, Mob_ad7, Mob_ad6 and Mob_ad14) these errors can be reduced by 22.30% (106.912/479.387). This reduction is deemed statistically significant with the F ratio of 21.169 and significance at level of 0.000. With the above analysis it can be conclude that four variables i.e., Marketing messages sometime save money, Marketing messages improve my shopping efficiency, I am concern about loss of personal information via mobile phone and I like to receive messages on time slots allowed by me (Mob_ad12, Mob_ad7, Mob_ad6 and Mob_ad14) explains the variance of mobile marketing as modern mode of advertising.

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