INFLUENCING THE ATTITUDE TOWARDS SMS ADVERTISEMENT: AN EMPIRICAL STUDY IN PAKISTAN

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Abstract

This research paper aims to examine the relationship between the predictors and consequences of SMS advertising value along with its mediating effect in the perspective of Islamic Republic of Pakistan. For this purpose causal and cross-sectional study with minimal researchers’ interference and focus on the attitude of individuals was put forward. A personally-administered questionnaire was used to collect data from those 194 undergraduate and graduate students of universities who were the users of cell phone. Structural Equation Modeling (SEM) was used to test the proposed hypotheses. There is significant relationship between infotainment, credibility and SMS advertising value. Conversely irritation has no significant association with SMS advertising value. Advertising Value, in turns, has strong impact on attitude towards SMS advertisement. Advertising value also has full mediating effect between infotainment, credibility and attitude towards SMS advertisement and has no mediating effect between irritation and attitude towards SMS advertisement. This study imparts the enterprises and businesses with the modern and economical tool of advertisement and also a value addition to the literature.

Keywords: Infotainment, Irritation, Credibility, Advertising Value, Attitude towards SMS Advertisement

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Introduction

Communication technology is improving day by day and it has given the opportunity to the companies to advertise their products through cell phones. Cell phone advertisement is developing an exceptional relationship with the consumers thereby giving way to the advancement of other new services for business and trade via cell phone (Venkatesh, Ramesh, & Massey, 2003). The cell phone is a multifunctional moveable gadget that can be used for entertainment, shopping, navigation, funds transfer and for many more with the help of improved internet facilities (Funk, 2004). Keeping the aforementioned functionalities of mobile phone it has one more interesting function to be used for that is to broadcast the significance of the product towards the end user via cell phone. Wireless Advertising Association (WAA) states that spreading the piece of information about the product to cell phones by employing the wireless network is called wireless marketing. To access the consumer through sending advertisement messages to their cell phone has become successful (Muk, 2007; Tsang, Ho, & Liang, 2004). Sending a piece of information to the consumer through SMS can help in making the Consumer Relationship Management (CRM) customized and capable of handsome profit margin. It will not be wrong to say that the development of SMS service, its massive packages offered by the telecommunication companies and its mounting use has opened new doors for advertisement (Barwise & Strong, 2002). No doubt the development of cell phone, various services related to it and its ability to be used as multifunctional device is worthwhile and playing a pivotal role all over the world but the culture of that country in which the consumer is residing effects his or her perception about the SMS advertisement (Park & Lee, 2009; Sultan, Rohm, & Gao, 2009; Wang & Sun, 2010). Mobile advertisement has been studied also by other researchers from different angels and perspectives in developed countries but keeping the cultural control on the perception in view Pakistan has been selected for this study. No doubt a great deal of research has been undertaken regarding the consumers’ attitude of different forms of advertisement in Pakistan (Haider, 2014) and foreign countries (der Waldt, la Rey, Rebello, & Brown, 2009; Tsang et al., 2004) but there is still a privation of exploring the influencing causes of SMS advertising value and its outcome in terms of attitude. So it is
indispensable to do research on the aforementioned gaps so as the marketing through SMS advertisement can be made value-added. Furthermore, the economy of Pakistan in terms of telecommunication sector is mounting as demonstrated by Pakistan Telecommunication Authority (PTA) in its annual report. The rise in mobile tele density provides the businesses with the opportunity to advertise through the way of SMS and hence validating the importance of topic at issue.

Conclusively, Ducoffe (1995, 1996) model of advertising value has been put forward for this study. Using this model the impact of infotainment, irritation, credibility on SMS advertising value and the impact of SMS advertising value on attitude towards advertisement was checked. The study empirically contributes to the literature by testing the model in Pakistani context with SMS as an advertisement tool. Additionally the mediating impact of advertising value of SMS advertisement has also been set forth between its antecedents and consequences. Practically, this study imparts the enterprises and businesses with the modern and economical tool of SMS advertisement along with the tactics to make it effective.

**Literature Review**

There are diverse ways to advertise a particular product or service that includes newspaper, electronic media, magazines, radio and outdoors. Advertising through cell phone has also been evolved in the modern era(Sinkovics et al., 2012). As this study mainly focuses on the SMS Advertising so it is mandatory to define it in a comprehensive manner. SMS Advertising cannot be defined solely as it is a constituent of Mobile Marketing. “Giving consumers the information about the product and services with the help of wireless communication devices to publicize them and thus making profit for all the bodies associated to the company is called Mobile Marketing” (der Waldt et al., 2009; Tsang et al., 2004). The Information about the product or service can be disseminated with the help of SMS or MMS (Multimedia Messaging Service). “Disseminating the information with the help of SMS is called SMS Advertising” (der Waldt et al., 2009; Tsang et al., 2004).
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**Advertising Value**

Advertising is a component of Marketing. The value that consumer appended to the advertisement of the product has core concern in marketing. “Advertising Value thus can be defined as the assessment of consumer about the usefulness of advertisement”(Ducoffe, 1995). With the help of sending textual to cell phones of consumers the interactivity with the consumers and the swiftness of interaction can be made improved and the advertising message can be transferred timely(Muk, 2007; Watson, Pitt, Berthon, & Zinkhan, 2002). The previous studies show that if the advertising message is sent to consumer with his assent then the tendency of consumer to respond in the form of purchase intention becomes greater and he can also be made aware about the brand(Barwise & Strong, 2002; Mohamed Yunos, Gao, & Shim, 2003). The advertisement based on the consent of consumer must be tailored and the distinctiveness, exclusivity and the beauty of such type of advertisement always lies in personalization(Deighton & Kornfeld, 2009; Muk, 2007). Uses and Gratifications (U&G) Theory was developed to evaluate the usefulness of the advertisement through conventional means like radio, television and other electronic media(Luo, 2002; Okazaki, 2004). This theory is extended to uncover the influencing causes of advertising value as information, entertainment, irritation and credibility(Luo, 2002; Okazaki, 2004). These causes can also be referred to as the causes of SMS advertisement value(Okazaki, 2004; Wang & Sun, 2010).

**Infotainment**

U&G Theory also ties information value and entertainment value into one variable named infotainment(Okazaki, 2004; Wang & Sun, 2010). The information is affirmed as the need of the consumers and if this need of the consumers is fulfilled then it is probable that consumers may change their perception into purchase intention(Aitken, Gray, & Lawson, 2008; Ducoffe, 1995). In formativeness element of infotainment thus reflects “U” of the U&G theory because it represents the level up to which the advertisement of any kind provides the consumer with the practical and useful information”(Ducoffe, 1996). It is reviewed that if the sent text message has the elements of humor and entertainment along with information
then the consumer may become enough motivated to purchase the product which had been publicized (Scharl, Dickinger, & Murphy, 2005). Entertainment element of infotainment thus reflects “G” of the U&G theory because it represents the feelings of humor, enjoyment and leisure (Xu, Oh, & Teo, 2009). Hence both the information and entertainment parts of the variable infotainment are of immense important and may has a positive association with the perceived advertising value. So we hypothesized that;

**H1:** The Infotainment of SMS advertisement perceived by the consumers has positive impact on advertising value.

**Irritation**

“If the content of information which is sent as an advertising message has offensive, insulting and frustrating elements then it is meant to be irritating message” (Ducoffe, 1995). Due to the irritated advertising text messages the consumer may underestimate the usefulness of advertising message (Aaker & Bruzzone, 1985; Luo, 2002). The massive use of SMS advertising can confuse the consumer and lead him to delete advertising messages without reading. It is due to the fact that threaded information may be disturbing for consumers and regarded as invasion to their concealment (Scharl et al., 2005; Stewart & Pavlou, 2002). On the basis of the aforementioned argument it is concluded that irritation is an unwanted situation and it may has a negative relation with perceived advertisement value (Ducoffe, 1995). Therefore we assumed that;

**H2:** The Irritation of SMS advertisement perceived by consumers has negative impact on advertising value.

**Credibility**

“Credibility entails the approach of consumer about the authenticity, integrity and reliability of advertisement.” The credibility of the advertisement can be scrutinized from the perspectives of marketer and advertisement itself (MacKenzie & Lutz, 1989). The extent to which the advertisement is credible is mainly affected by the credibility of marketer and the conveyer (Goldsmith, Lafferty, & Newell, 2000; Lafferty, Goldsmith, & Newell, 2002). The credibility of the marketer is his reputation and good will in the eye of
consumer (Okazaki, 2004; Okazaki, Katsukura, & Nishiyama, 2007) while the credibility of advertisement can be reckoned through the core stuff of the advertisement. The advertisement must be believable especially on the occasions where the consumer has to take decisive actions only on the basis of delivered information (Okazaki et al., 2007). The abovementioned discussion demonstrates that credibility may have a positive link with advertisement value so we postulated that:

H3: The Credibility of SMS advertisement perceived by consumers has positive impact on advertising value.

Perceived Advertising Value and Attitude towards SMS Advertising

“An attitude is the mental approach of a consumer that portrait his positive or negative responsiveness in relation to advertisement (MacKenzie & Lutz, 1989). Consumer attitude is a broad term that is amalgamation of his judgmental approach, feelings or sentiments and behavior and according to the SMS advertising the focus should be only on the first constituent of the consumer attitude that may be called as cognition. Accordingly cognition is the most imperative determinant of individual behavior that is created by attaching value to SMS advertising and that result in the advantageous attitude of the customer (Iacobucci & Churchill, 2009). Marketing is basically the exchange of product information from the marketer towards the consumer and he can force the consumer to purchase the product by advertising in such a manner that urges consumer to attach high value to the product. Conversely, if the advertisement becomes unable for the consumer to be valued then the consumer will not respond favorably (Ducoffe, 1995). Hence, we posit that:

H4: High value of SMS advertisement attached by the consumers has a positive impact on their attitude toward advertisement.

On the word of Mehta (2000) high value of SMS advertisement attached by the consumers can turn their attitude auspiciously and convinced them to accept it. For that reason it may assume that advertisement value has a mediating effect between aforesaid perceptual elements of consumers and their respective attitude even
though it also has direct impact on their attitude. Consequently, we further assumed that;

**H5a:** Advertisement Value plays a mediating role between infotainment perceived by the consumers and their attitude towards SMS advertisement.

**H5b:** Advertisement Value plays a mediating role between irritation perceived by the consumers and their attitude towards SMS advertisement.

**H5c:** Advertisement Value plays a mediating role between credibility perceived by the consumers and their attitude towards SMS advertisement.

**Figure 1:**
*Theoretical Framework*

![Theoretical Framework Diagram]

**Research Methodology**

After the development of research model and hypotheses it was mandatory to test them that were only possible through the best suited research methodology. The purpose behind writing this research paper was to test the relationships and eventually the hypothesis established between the cause and effects of advertising value therefore causal study was conducted. The researcher’s interference was minimal that led towards the non-contrived field study. The unit of analysis was individuals. The data was collected on one time that made the time horizon for the study cross sectional. All the graduate & undergraduate students of well-known universities who were the user of mobile phone were the target population. To extract the sample size non-probability sampling technique more precisely convenient sampling was used and according to Kline (2011) the sample size should be 10 for a single parameter that necessitates the sample to be at least 160 respondents but in anticipation of incomplete and missing questionnaires 225 students were taken for the study out of which 194 questionnaires were returned and found usable for the study showing the response rate of 86.22%.
In order to collect data personally administered questionnaire was compiled in English that includes the close ended questions. The questionnaire entailed a total of 19-items from which 3-items were related to demographics of respondents and 16-items were related to the constructs. 5-items were related to infotainment, 2-items were related to irritation and 3-items were related to advertising value that all were adopted from the Ducoffe (1996) scales for advertising on the World Wide Web. 3-items were related to credibility that was based on MacKenzie & Lutz (1989) scale and 3-items were related to attitude towards advertising that was derived from scale 5-point Likert Scale ranging from “Strongly Disagree” (1) to “Strongly Agree” (5) to measure the responses. After the proof reading of questionnaire by an MA English it was disbursed to 225 respondents and data was collected over a period of two months.

To test the hypothesis Structural Equation Modeling (SEM) was used. It was selected for data analysis as it has the ability to perform multiple analyses simultaneously and hence can be said that it is the integrated form of Confirmatory Factor Analysis (CFA) as well as Path or Regression Analysis by using SPSS-22 and AMOS.

Results
Before the implementation of SEM it is essential that the data must be normal and reliable that can be ascertained with the help of descriptive statistics. The descriptive statistics including Mean, Standard Deviation and Cronbach’s Alpha of all variables were computed and presented in the Table 4.1.

Table 4.1:
Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Cronbach’s α Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Value (AV)</td>
<td>3.5876</td>
<td>0.92028</td>
<td>0.867</td>
</tr>
<tr>
<td>Infotainment</td>
<td>3.0052</td>
<td>1.03005</td>
<td>0.859</td>
</tr>
<tr>
<td>Irritation</td>
<td>2.9742</td>
<td>1.02399</td>
<td>0.770</td>
</tr>
<tr>
<td>Credibility</td>
<td>3.2543</td>
<td>0.88910</td>
<td>0.801</td>
</tr>
<tr>
<td>Attitude towards Advertisement</td>
<td>3.2371</td>
<td>1.04141</td>
<td>0.884</td>
</tr>
</tbody>
</table>
The means of all variables are ranging from 2.974 to 3.587 and standard deviations of all variables are ranging from 0.889 to 1.041 indicating the data to be normally distributed. As far as the Cronbach’s Alphas of the variables are concerned they are ranging from 0.770 to 0.884 signifying the reliability of the data as according to Cronbach (1951) they are greater than 0.7. After proving the data to be normal and reliable it is able for SEM to be executed. We applied two-step methodology suggested by Anderson. At first step CFA was executed to test the measurement model and finally SEM was executed to test the assumptions made. According to Anderson the scales that are being used must not have reliability and validity dispute while executing CFA. To examine the reliability and validity the approaches of Cronbach (1951) and Kline (2011) respectively was followed. CFA was executed by portraying all variables and their related items in Amos 22. Afterward the covariance between all variables was portrayed and let them to show a covariance and afterward the results were computed. With the intent of ascertaining the model fit, the Model Fit Indices were examined. In consistent with Kline (2011) CMIN/df that is commonly read as Normed Chi-Square should have lesser value than 3.0, Comparative Fit Index (CFI) and Goodness of Fit Index (GFI) should have greater value than 0.95, Adjusted Goodness of Fit Index, should have greater value than 0.80, Root Mean Square Residual (RMR) have lesser value than 0.09 and Root Mean Square Error of Approximation (RMSEA) should have lesser value than 0.05. All the model fit indices of measurement model for the study under discussion (CMIN/df=2.013, CFI=0.959, GFI=0.916, AGFI=0.865, RMR=0.051 and RMSEA=0.072) lies within acceptable range. Now the need of time was to analyze the validity of scales in terms of convergent and discriminate validity (Kline, 2011).

With the aim of testing convergent and discriminate validity Fornell & Larcker (1981) methodology was used. In order to ascertain the convergent validity the three-step methodology of Fornell & Larcker (1981) was tracked that states that Composite Reliability (CR) of all variables should have greater value than 0.80, Factor Loadings of all variables should have greater value than 0.70 and Average Variance Extracted (AVE) should have greater value than 0.50. All the aforementioned indicators of the study under discussion have values
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within the acceptable range and expressed below in Table 4.2 and Table 4.3.

### Table 4.2:
**Factors Loading**

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of Items</th>
<th>Factors Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Value (AV)</td>
<td>3</td>
<td>0.782, 0.879, 0.835</td>
</tr>
<tr>
<td>Infotainment</td>
<td>3</td>
<td>0.846, 0.758, 0.781</td>
</tr>
<tr>
<td>Irritation</td>
<td>2</td>
<td>0.820, 0.777</td>
</tr>
<tr>
<td>Credibility</td>
<td>3</td>
<td>0.902, 0.781, 0.706</td>
</tr>
<tr>
<td>Attitude towards Advertisement (ATA)</td>
<td>3</td>
<td>0.928, 0.867, 0.761</td>
</tr>
</tbody>
</table>

In favor of evidencing discriminate validity it is essential that “AVE should have greater values than the correlation values of all other variables. The “AVE values of the study under negotiation met the criterion as shown is Table 4.3and attested the discriminate validity. Both validities had been verified depicting no issues in them and indicating CFA had been successfully executed and let the SEM to be executed to test propositions.

### Table 4.3:
**Psychometric Properties**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>CR</th>
<th>AVE</th>
<th>AV</th>
<th>Infot</th>
<th>Irrit</th>
<th>Cred</th>
<th>ATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV</td>
<td>0.871</td>
<td>0.694</td>
<td><strong>0.833</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infotainment</td>
<td>0.838</td>
<td>0.633</td>
<td>0.487&quot;&quot;</td>
<td><strong>0.796</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritation</td>
<td>0.779</td>
<td>0.638</td>
<td>-0.199&quot;&quot;</td>
<td>-0.531&quot;&quot;</td>
<td><strong>0.799</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td>0.841</td>
<td>0.641</td>
<td>0.743&quot;&quot;</td>
<td>0.491&quot;&quot;</td>
<td>-0.223&quot;&quot;</td>
<td><strong>0.800</strong></td>
<td></td>
</tr>
<tr>
<td>ATA</td>
<td>0.890</td>
<td>0.731</td>
<td>0.795&quot;&quot;</td>
<td>0.414&quot;&quot;</td>
<td>-0.260&quot;&quot;</td>
<td>0.662&quot;&quot;</td>
<td><strong>0.855</strong></td>
</tr>
</tbody>
</table>

Later the structural model was drawn by making associative path according to the hypothesis. The results were computed and the model fit indices were examined again. In consistent with Kline (2011) all the model fit indices of structural model lies within acceptable range for the study under discussion (CMIN/df=2.021, CFI=0.957, GFI=0.912, AGFI=0.865, RMR=0.059 and RMSEA=0.073) lies within acceptable range.
At first H1 was tested and the results states that there is statistically significant relationship between infotainment and advertising value ($\beta=0.137$ and $p<0.1$). So on this ground H1 is accepted. The relationship was also found significant in the study of (Sinkovics et al., 2012).Afterward H2 was tested and the results declared insignificant relationship between irritation and advertising value ($\beta=0.007$ and $p>0.05$) that provides the source of not accepting H2. This relationship was also found insignificant in the study of (Haida & Rahim, 2015). Later H3 was tested and the results affirmed a strong positive relationship between credibility and advertising value ($\beta=0.622$ and $p<0.001$) that provides the basis of accepting H3. This relationship was also found significant in the study of (Goldsmith et al., 2000; Okazaki, 2004; Wang & Sun, 2010).Subsequently H4 was tested and the results confirmed strong positive relationship between advertising value and attitude towards SMS advertisement ($\beta=1.088$ and $p<0.001$). So on the roots of results H4 is accepted. The relationship was also found significant in the study of (Ducoffe, 1996).

To test the mediation of SMS advertising value the paths were drawn to link the infotainment, irritation and credibility with the attitude towards SMS advertisement directly. Then the results were computed and direct and indirect effects were obtained from AMOS that has been shown in Table 4.5 and Table 4.6 respectively. Now H5a was tested and the results demonstrated the full mediation of advertising value between infotainment and attitude ($\beta=0.150$ and $p<0.05$) according to the rule of Baron & Kenny (1986).
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Table 4.5:
Direct Effects

<table>
<thead>
<tr>
<th>Relationships</th>
<th>β</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infotainment → AV</td>
<td>0.163</td>
<td>0.041</td>
<td>*</td>
</tr>
<tr>
<td>Infotainment → ATA</td>
<td>-0.089</td>
<td>0.340</td>
<td>ns</td>
</tr>
<tr>
<td>Irritation → AV</td>
<td>0.041</td>
<td>0.478</td>
<td>ns</td>
</tr>
<tr>
<td>Irritation → ATA</td>
<td>-0.168</td>
<td>0.074</td>
<td>†</td>
</tr>
<tr>
<td>Credibility → AV</td>
<td>0.593</td>
<td>0.001</td>
<td>***</td>
</tr>
<tr>
<td>Credibility → ATA</td>
<td>0.187</td>
<td>0.170</td>
<td>ns</td>
</tr>
<tr>
<td>AV → ATA</td>
<td>0.924</td>
<td>0.001</td>
<td>***</td>
</tr>
</tbody>
</table>

Note: ns=not significant. †=p<0.1. *=p<0.05. **=p<0.01. ***=p<0.001.

Table 4.6:
Indirect Effects

<table>
<thead>
<tr>
<th>Relationships</th>
<th>β</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infotainment → AV → ATA</td>
<td>0.150</td>
<td>0.031</td>
<td>*</td>
</tr>
<tr>
<td>Irritation → AV → ATA</td>
<td>0.038</td>
<td>0.440</td>
<td>ns</td>
</tr>
<tr>
<td>Credibility → AV → ATA</td>
<td>0.548</td>
<td>0.001</td>
<td>***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BBCI</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.038</td>
<td>0.322</td>
</tr>
<tr>
<td></td>
<td>-0.064</td>
<td>0.173</td>
</tr>
<tr>
<td></td>
<td>0.387</td>
<td>0.764</td>
</tr>
</tbody>
</table>

Note: ns=not significant. †=p<0.1. *=p<0.05. **=p<0.01. ***=p<0.001.

This mediating effect was also found in the study of (Hassan et al., 2013). Next H5b was tested and the results validated no mediation of advertisement value between irritation and attitude (β=0.038 and p>0.05) according to the methodology of Baron & Kenny (1986). Finally H5c was tested and the results determined the full mediation of advertisement value between credibility and attitude (β=0.548 and p<0.001) according to the approach of (Baron & Kenny, 1986). This mediating effect was also found in the study of (Hassan et al., 2013). In nutshell H2 and H5b are not supported by the results whereas H1, H3, H4, H5a and H5b are supported by the results.
Conclusion

In order to meet perseverance and objective of this study stated in introduction, Structure Equation Modeling was employed which results are applicable in the context of Pakistan. This research also asserts that those consumers have the positive attitude towards SMS advertisement who attaches high value to the SMS advertisement. Insofar as mediating effect of SMS advertising value is concerned then it has established the full mediation between infotainment, credibility and attitude towards SMS advertisement. On the other hand SMS advertising value has confirmed no mediation between irritation and attitude towards SMS advertisement.

The study empirically contributes to the literature by testing the model in Pakistani context with SMS as an advertisement tool. Additionally the mediating impact of advertising value of SMS advertisement has also been set forth between its antecedents and consequences. The enterprises can also take advantage from the implications of this study. It explains enterprises to advertise economically through another advertisement tool that is spreading the information about the product and services via text messages (SMS advertisement) in consort with the strategies to make this advertisement tool value-added. Using this study enterprises can comprehend the attitudes of the consumers and can make it favorable.

This study is subject to few limitations, as it is conducted in the context of a single country such as Pakistan and used the cross-sectional study. In order to validate the findings the proposed study further longitudinal research with samples of different countries can be conducted.
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References


