Journal of Business & Economics
Vol.5 No.2 (July-December 2013) pp. 206-227

Acceptance of SMS Advertising in Young Pakistani Consumers

Farida Saleem*

Abstract

In this study acceptance of SMS advertising among young Pakistani consumers has been examined. Technology Acceptance Model (TAM) is modified by including subjective norms and perceived trust to understand the antecedents of intentions for use of SMS advertising. Data was collected from 229 mobile phone users through a structured questionnaire. The model was analyzed using Structural Equation Modeling (SEM) technique. Results revealed that perceived utility and perceived trust are the two major determinants of intentions to use SMS advertising by young Pakistani consumers. However, perceived ease of use and subjective norms also play a role in predicting intentions. Overall the modified version of Technology Acceptance Model (TAM) is well supported through data.

Key Words:

Technology acceptance model, subjective norms, perceived trust, Pakistani consumers.

1. Introduction

Personalized, innovative and interactive mediums including electronic marketing, where the marketing objectives can be achieved through the use of electronic communication technology, have replaced the traditional marketing mediums (Mirbagheri, 2010; Chaffey, 2004). Mobile marketing as

* Farida Saleem, Assistant Professor, Department of Business Administration, Fatima Jinnah Women University, Rawalpindi, Pakistan. E-mail:fareeda.saleem@fjwu.edu.pk, farida-saleem@hotmail.com

one of the electronic mediums is defined as "the use of wireless media as an integrated content delivery and direct-response vehicle within a cross-media marketing communications program" (*Advertising Age*, December 4, 2006, p. 20). Similarly, the marketing activities carried through mobile devices using the wireless network based Short Message Services (SMS) (Gao, 2008) is the sub set of Mobile marketing (Dickinger et al., 2005). It is a form of instant messaging system through which the user can send message of up to 160 characters to any mobile phone (Leung, 2007; Phau and Teah, 2009). SMS is considered as the most popular mobile data application. According to Forbes (2006) 65 percent of mobile users use this service daily.

The average SMS generation rate by a single user per month is 176 in Pakistan (Pulse, 2013) whereas according to Portio Research (2012) the rate is 99 SMS per month in China, 22 SMS in Brazil, 617 SMS in USA and 53 messages per month in India in 2011. Pakistan appears to be on the top of the list while considering South Asian economies where an individual user generates on average 7 SMS daily and almost 200 SMS on monthly basis.

The advantages to SMS advertising over other channels including the email advertising are firstly, due to the technology of SMS and secondly, due to the habit of mobile users (Bamoriya and Singh, 2012). As mobile users carry their mobiles everywhere, SMS advertising reach these possible customers anywhere and at any time (Luxton and Mahmood, 2009; Dickinger et al., 2005). Similarly, the mobile phones do not have spam filters which give SMS advertising edge over email advertising (Mirbagheri, 2010; Bamoriya and Singh, 2012). SMS advertising is effective for both pull and push promotional campaigns (Katzstone, 2001). It also has capability to be converted into viral advertising (Yaniv, 2008; Bauer et al., 2005) in which the original recipient of a message forward the message to further recipients, who are not part of the initial target group of the advertising campaign. Usually these forwarded messages have greater chances to produce response compared to when a message is from advertiser directly (Kroeber et al., 2003). SMS advertising can help advertisers to maximize effectiveness and reduce overall budget of advertising campaigns (Bamoriya and Singh, 2012).

The detailed nature of this advertising medium and attitude of consumers towards this medium is yet to be explored, particularly in the Pakistani context.

SMS just like traditional tele and direct mail marketing campaigns can be sent directly to the prospective consumers and is interactive, inexpensive and can produce higher response rate (Zhang and Mao, 2008) which makes it an extremely desirable method for targeting young consumers. Young consumers falling within the age group of 15-24 are more active users of SMS (Barnes, 2003). Landline telephones have been replaced by mobile phones in this age group (DeBaillon and Rockwell, 2005). Mobile phones are a part of lifestyle of these young consumers, it is not only a form of fashion statement but also a portal to keep connected to peer networks (Carroll et al., 2007). Particularly, it is being used as a communication tool in this age segment (Leung, 2007). Despite the fact that SMS advertising is one of the fast growing marketing tool, there is a limited amount of research having focus on SMS advertising and its acceptance in consumers (Bauer et al., 2005; Trappey and Woodside, 2005, Zhang and Mao, 2008; Bamoriya and Singh, 2012). Furthermore, very few studies have focused on Pakistani consumers' acceptance of SMS advertising, although they send and receive more SMS messages compared to many consumers from developed countries (Portio Research, 2012).

2. Literature Review

2.1 Technology Acceptance Model

The Technology Acceptance Model (TAM) presented by Davis (1989), helps to identify the factors which are useful for determining the user acceptance of end user technologies. This model is widely accepted due to its robustness (Cheung and Huang, 2005). The model was originally proposed for studying acceptance of technology at work but was later used by many researchers in consumer studies as original as well as modified for understanding the impact of technology such as internet, e-commerce, mobile advertising etc. (Zhang and Mao, 2008; Bamoriya and Singh, 2012;

Kaasinen, 2005).

For this research, modified TAM model has been adopted from Zhang & Mao (2008) by integration of technology acceptance model, TAM (Davis, 1989) theory of reasoned action (TRA) (Fishbein and Ajzen, 1975) and trust (Gefen, Karahanna, and Straub, 2003). TAM identifies perceived ease of use and perceived utility as important determinants of intention to use technology, similarly TRA posits that individual intentions are affected by subjective norms.

1.1.1 Perceived Ease of Use

Davis (1989) defines the ease of use as "the degree to which a person believes that using and dealing with a particular system would be free from effort". Ease of use of SMS advertising is the expectation of the effort a mobile phone user is required to put in to use for SMS advertising messages. It is inversely proportionate to the level of effort a user has to put in. These expectations are different from other forms due to the technical and interactive characteristics of SMS advertising, it requires more cognitive efforts. As according to Zhang and Mao (2008) first the user has to maneuver through the menu to check and gain access to the advertisement and after reading and understanding the message they have to make quick evaluation to take decision and action. Therefore, when they perceive using SMS advertising is easy they are more likely to engage in the action implied by the message in SMS advertising (Zhang and Mao, 2008). Hence following hypothesis is proposed:

H1: Perceived Ease of Use has impact on attitude towards using SMS advertising

1.1.2 Perceived Utility

Similarly Davis (1989) defines perceived usefulness/utility as "the degree to which a person believes that using a particular system would enhance his or her performance". The ability to provide superior value is a

precondition for the development of a long term relationship with the customers. Value can be derived from experiences and expectations. And values are basis of attitudes, actions and judgments. Customers' acceptability and understandability is higher for the advertisements which are relevant to their interest or to which they can relate to themselves (Nasco and Bruner, 2008). The acceptance to use SMS advertising is contingent upon perceived utility of these advertisements (Bauer et al. 2005). The mobile phone users' intention to use SMS advertising messages is an outcome of intentional behavior, which is based on some specific reason and requires conscious evaluation of the benefits of these messages. Therefore, consistent with the previous Technology Acceptance Model studies it is hypothesized that:

H2: Perceived Utility has impact on attitude towards using SMS advertising

1.1.3 Perceived Trust

Moorman, Zaltman and Deshpande (1992) define trust as "the willingness to depend on an exchange partner in whom one has confidence". Trust is an important component for maintaining long term relationships. Its importance is evident from successful and effective relationships and transactions in businesses (Moorman, Zaltman, and Deshpande, 1992). In the absence of personal interaction, trust is of cognitive type which is based on the judgment of reliability and capability (McAllister, 1995). The importance of trust in e-commerce is very significant, where face to face interactions are very limited or none existent (McKnight, Choudhury, and Kacmar, 2002). On the basis of above findings following hypothesis is proposed:

H3: Perceived Trust has impact on attitude towards using SMS advertising

1.1.4 Subjective Norms

Subjective norms have repeatedly been used by researchers to study the significance of social context in developing behavioral intention in individuals. Subjective norms are the extent to which an individual feels

pressure from the people who are important or significant to behave in a certain manner (Fishbein and Ajzen, 1975). According to Fishbein and Ajzen (1975), subjective norms are ‘‘perceived pressures on a person to perform a given behavior and the person’s motivation to comply with those pressures.’’ Many studies have identified subjective norms as an important detriment of behavioral intentions (Lin, 2007; Taylor and Todd, 1995; Yi et al., 2006). The original TAM model did not have subjective norms as an antecedent. However, many researchers have used subjective norms as part of the extended TAM (Venkatesh and Davis, 2000; Zhang and Mao, 2008). The subjective norms have a positive impact on the technology usage behavior of individuals (Venkatesh and Davis, 2000). The innovation diffusion theory (Rogers, 2003) also identifies that technology adoption decisions are dependent on subjective norms and interpersonal communication networks. With limited experience with SMS advertising messages it is expected that Pakistani consumers are more likely to look for social and subjective norms to guide their behavior. Similarly the collectivistic culture of Pakistan would also play an important role in predicting this behavior.

H4: Subjective Norms have impact on attitude towards using SMS advertising

1.1.5 Attitude

Attitude is an individual’s willingness to act or react in some specific way or certain way (Jung, 1971). An individual’s attitude has a direct impact on his/her choice of consuming some specific service and it also helps in predicting and explaining their intentions to select across products and services (Honkanen, Verplanken,Olsen 2006). According to Ajzen (1991) the favorable attitude with respect to a behavior will lead to the strong intention to perform that behavior. It is essential and important to examine whether attitudes towards SMS advertising would have an impact on SMS advertising usage. The behavioral outcome of using SMS advertising can be affected by the attitudes towards SMS advertising (Jun and Lee, 2007). Hence following hypothesis is proposed

H5: Attitude towards SMS advertising has an impact on intentions toward

using SMS advertising

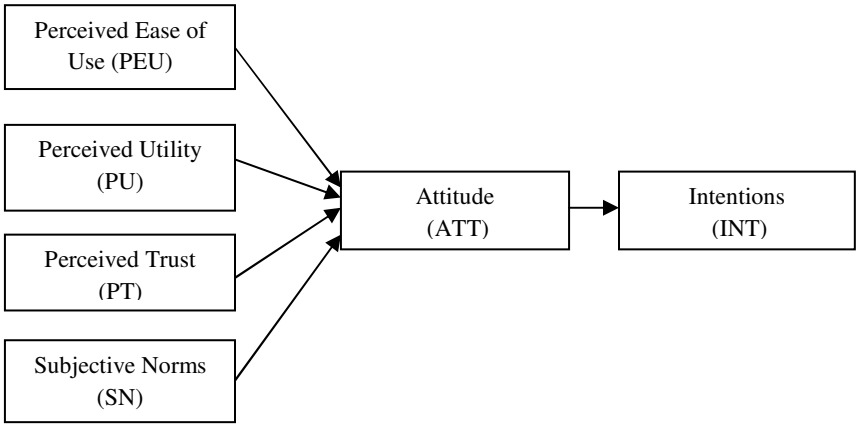


Fig. 1 Theoretical Model
Source: Part of figure is adapted from Technology Acceptance Model TAM (Davis, 1981). Perceived Trust and Subjective norms are added in the (TAM) model as an antecedent of Intentions to use SMS advertising

3. Methodology

3.1 Procedure and Participants

Structural equation modeling technique is recommended for large sample size, for each observed variable 20 observations are desirable with minimum of 10 observations (Kline, 2005). For the current study, a total of 300 questionnaires were distributed in four universities of Rawalpindi and Islamabad. Out of these 245 filled questionnaires were received back, but only 229 were usable. The response rate was 76 percent which is quite high and is acceptable for self-administered surveys.

3.2 Measures

Each observed variable in the model was measured using 5-point Likert scale, ranging from "1" (strongly disagree) to "5" (strongly agree). See Table No. 1 for the variables, their items, and reliability measures i.e. Cronbach

alphas. The research instrument was developed in English as the respondents were university students and can easily provide reply to these questions.

Table 1
Latent and Observed Variables and Cronbach's Alpha Values of Constructs

Latent Variables	Observed Variables	Adopted from	Cronbach's Alpha
Perceived Utility	**PU1**: Through SMS ads one could receive useful promotional offers. **PU2**: Through SMS ads one could receive up-to-date information. **PU3**: I believe one could benefit from SMS ads.	Baueret al., (2005)	0.860
Perceived Trust	**PT1**: I believe a marketer would use my personal data only for the purpose I approve. **PT2**: I trust SMS advertising. **PT3**: There is a risk of misuse of my personal data given to SMS advertiser.	Tusang et al., (2004)	0.853
Perceived Ease of use	**PEU1**: If I were to adopt SMS advertising services, it would be quite easy for me. **PEU2**: I find opt in & opt out concepts complicated.	Tanakinjal et al., (2010)	0.837
Subjective Norms	**SN1**: People who influence my behavior think that I should use SMS Advertising **SN2**: People who are important to me think that I should use SMS Advertising **SN3**: People whose opinions I value prefer that I should use SMS Advertising	Taylor and Todd (1995)	0.864
Attitude	**ATT1**: I find it positive to receive SMS ads on my mobile. **ATT2**: I like SMS advertising.	Tusang et al., (2004)	0.867
Behavioral Intention	**INT1**: My general intention to use SMS advertising services is very high. **INT2**: I am willing to receive SMS ads.	Shimp et al., (1984) ; Merisavo et al., (2007)	0.883

3.3 Statistical Assumptions of SEM

Data is first subjected to statistical test for fulfilling the basic assumptions of structural equation modeling technique including the tests for normality reliability and validity of data.

3.3.1 Normality

For the applicability of SEM technique, data should have univariate and multivariate normality. Univariate normality can be accessed through skewness and kurtosis indices which should lie between the absolute value of 3 and 10 respectively (Kline, 2005). The skewness values for the current data lies between 0.190 and 0.575 while kurtosis values were between -0.237 and -0.795, hence showing univatiate normality in the data set. The multivariate normality can be accessed with the help of Mardia coefficient, the critical ratio of Mardia's coefficient equal to 1.96 or less indicates multivariate normality in the data (Gao et al., 2007). The critical ratio of Mardia coefficient for the current data set was 1.56, indicating multivariate normality in the data.

3.3.2 Reliability

Cronbatch's Alpha values were used to check the internal consistency and reliability. The Alpha values were calculated using SPSS 17. The alpha of overall scale was 0.923 while the alpha values for each latent construct were between 0.837 and 0.883. The Cronbatch's Alpha value for each latent variable is given in Table No. 1.

Composite reliability of constructs was calculated using measurement model out puts. The composite reliability value is between 0.84 – 0.88.

3.3.3 Validity

Convergent validity was evident from significantly ($p<.001$) loaded indicators on their respective constructs and the squared multiple correlation value of each observed variable was greater than 0.6, indicating that each

observed variable is successfully loaded in to their respective latent construct. Values of squared multiple correlation are given in Table No 2.

Table 2
Descriptive Statistics, Correlations and Shared Variance for Constructs

	Variable	No of Items	Mean	S.D.	CR	1	2	3	4	5	6
1	PEU	2	2.73	1.03	.844	**.73**					
2	PU	3	2.62	.99	.859	.64* (.38)	**.67**				
3	PT	3	2.82	.98	.853	.60* (.36)	.61* (.37)	**.66**			
4	SN	2	2.66	.99	.873	.29* (.08)	.49* (.24)	.41* (.17)	**.77**		
5	ATT	2	2.67	1.15	.874	.55* (.30)	.63* (.40)	.62* (.38)	.46* (.21)	**.77**	
6	INT	2	2.61	1.07	.883	.57* (.32)	.67* (.45)	.69* (.48)	.48* (.23)	.77* (.59)	**.79**

Shared variance in parenthesis; AVE in diagonal
*P <0.01 S.D.: Standard Deviation CR: Composite Reliability

Discriminant validity was assessed through Fornell and Larker (1981) criteria by comparing the average variance extracted (AVE) and the shared variance. In all cases the AVE was greater than the shared variance thus indicating discriminant validity of data.

4. Results

4.1 Model Estimation and Analysis

The incremental approach to structural equation modeling also known as two steps approach was used for model estimation and analysis. In this approach the first step is the fitting of the measurement or CFA model. Maximum Likelihood Estimation (MLE) method was used for fitting of data. AMOS-16 was used for data analysis.

4.2 CFA/ Measurement Model

The results of measurement model identified that all observed variables

had t-value greater than 2.50, their factor loadings were greater than 0.5 and R^2 was also greater than 0.5, none of the observed variable was considered for removal from the model (Joreskog and Sorbom, 2006). However, the modification indices of the measurement model recommended deletion of one observed variable from subjective norms (i.e., SUBN 3). This removal of observed variable helped in the overall improvement of measurement model fit. The results of measurement model are given in Table No 3.

Table 3
Measurement Model Fit Indices

Index	Estimated Value	Recommended Value
χ^2	84.45	
df	62	
P-value	0.031	> or = 0.10 (Kline, 2005)
χ^2/df	1.36	< or = 3 (Kline, 2005)
Goodness of Fit (GFI)	0.947	> or = 9 (McDonald et al., 2002; Klem, 2000)
Root Mean Square Error of Approximation (RMSEA)	0.040	0 < RMSEA < 0.08 (Arbuckle et al., 1999; Kline, 2005)
Root Mean Square Residual (RMR)	0.054	0 < RMR < 0.08 (Arbuckle et al., 1999; Kline, 2005)
Comparative Fit Index (CFI)	0.934	> or = 9 (McDonald et al., 2002; Kline, 2000)
Tucker-Lewis Index (TLI)	0.904	> or = 9 (McDonald et al., 2002; Kline, 2000)

4.2.1 Structural Model and Hypothesis Testing

The observed variables which were successfully loaded to their respective latent constructs were used for structural model/causal path analysis. The results of structural model are present in Table 4. All hypotheses H1, H2, H3, H4 and H5 were supported.

The standardized regression weights, also known as beta weights given in table 4 are used for the assessment of SMS advertising effect of perceived ease of use, perceived utility, perceived trust and subjective norms on attitude and of attitude on intentions. Effect size greater than 0.5 is considered to be

Table 4
Structural Model

Causal Path	Standardized Regression Weights	Un-Standardized Coefficient	t-value	Hypotheses	Supported
PEU=>INT	0.140	0.132	1.688***	H1	Yes
PU=>INT	0.305	0.312	3.310*	H2	Yes
PT=>INT	0.337	0.363	4.033*	H3	Yes
SN =>ATT	0.159	0.186	2.502**	H4	Yes
ATT => INT	0.825	0.828	11.411*	H5	Yes
Goodness of fit Indices					
χ^2 = 116 ; d.f. = 66; χ^2/d.f. = 1.75; p< 0.001; CFI = 0.97; GFI = 0.93; AGFI = 0.89; RMR = 0.061 RMSEA = 0.057					

* p<.01 **p<.05 ***p<.10

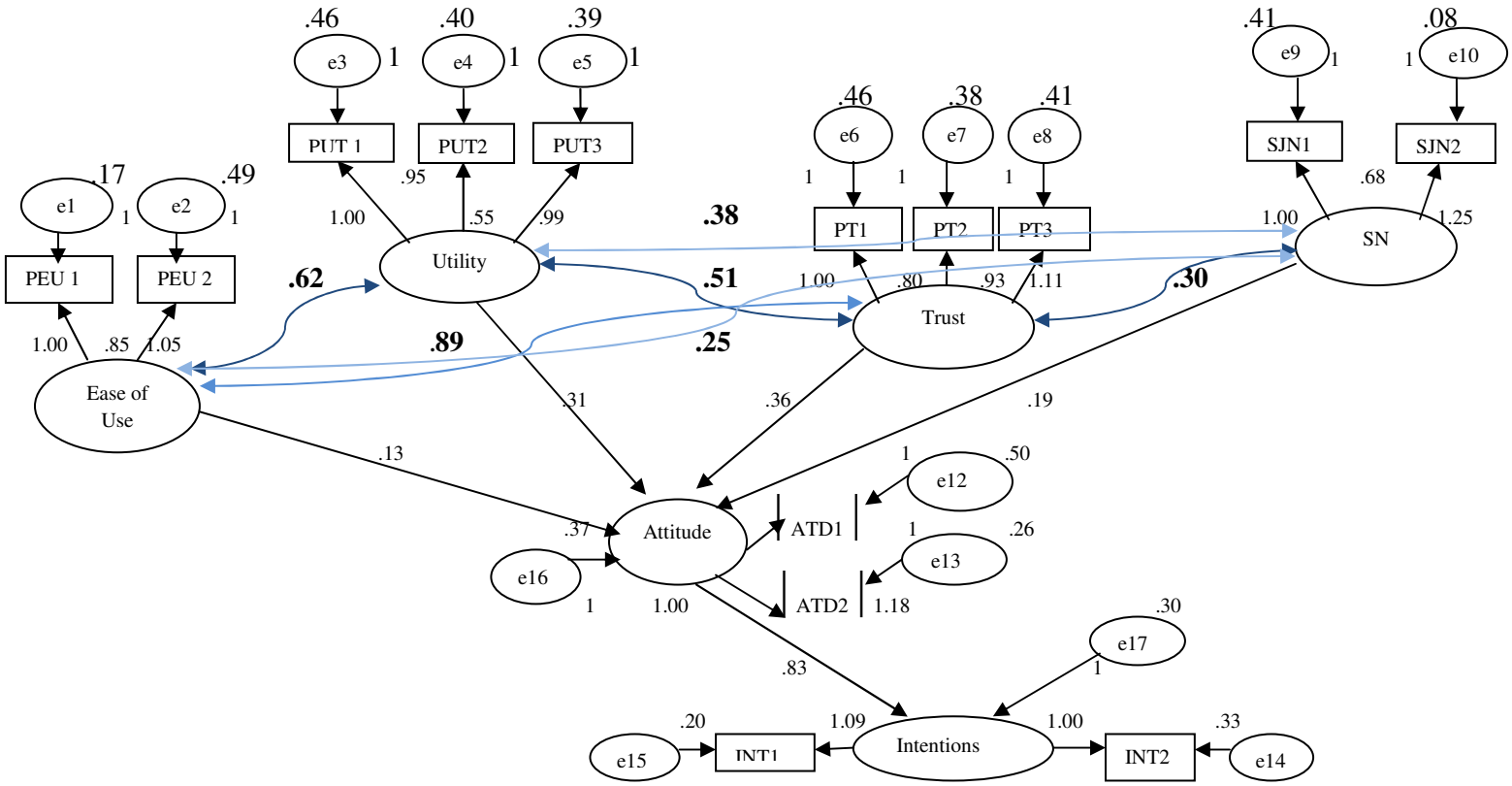
large whereas between 0.5 and 0.1 is considered as moderate (Kline, 2005). Effect of attitude on intentions was found to be large, while rest of all other relationships had moderate effect.

Perceived trust has the strongest positive and significant relationship with attitude towards SMS advertising the second significant positive relationship lies between perceived utility and trust. While the relationship between perceived ease of use and attitude is weak though positive and significant. The result suggests that higher the perceived ease of use, perceived utility, perceived trust and subjective norms, the more positive will consumer's attitude be towards the use of SMS advertising.

Impact of attitude on intentions to use SMS advertising was analyzed through H5. Attitude has the strongest positive and significant relationship with intentions. Hence H5 was accepted.

5. Discussion and Conclusion

This study was aimed at determining the acceptability of SMS advertising in Pakistani consumers. Modified technology acceptance model (TAM) is used for identification of antecedents of acceptability of SMS advertising in Pakistani customers. Perceived trust and subjective norms has


.46
.40
.39
e3
e4
e5
1
1
1
PUT 1
PUT2
PUT3
.95
.55
.99
1.00
.17
.49
e1
e2
1
1
PEU 1
PEU 2
1.00
.85
1.05
.62
Utility
.38
.46
.38
.41
e6
e7
e8
1
1
1
PT1
PT2
PT3
.51
1.00
.80
.93
1.11
Trust
.89
.25
.30
.41
.08
e9
e10
1
1
SJN1
SJN2
.68
1.00
1.25
SN
Ease of Use
.31
.36
.19
.13
.37
Attitude
1
.50
e12
ATD1
1
.26
e13
e16
1
1.00
ATD2
1.18
.30
e17
1
.83
.20
1.09
1.00
.33
e15
INT1
Intentions
INT2
e14

been introduced in the TAM as an antecedent of intentions to use SMS advertising. First important finding of this study revolves around the validity of TAM in a developing country context, Pakistan. Antecedents including perceived ease of use, perceived utility, perceived trust, subjective norms and attitude towards using SMS advertising play an important role in developing intentions to use SMS advertising. These findings are consistent with the previous findings of many researchers in this area.

With regard to the proposed relationships of perceived ease of use, perceived usefulness, and customers' attitude towards the use of SMS advertising, findings of this study indicate that perceived utility has a more profound effect on attitude towards the use of SMS advertising than that of customers' perceived ease of use. This shows that customers tend to focus on utility of SMS advertising rather than ease of use in the formation of a positive attitude towards its use. This result is consistent with the results of other studies (Adams et al., 1992; Agarwal and Prasad, 1997) Perceived utility significantly and positively predicts young Pakistani consumers' behavioral intentions to use SMS advertising these finding are consistent with the findings of Davis, Bagozzi, and Warshaw, (1989), Gefen, Karahanna, and Straub, (2003) and Zhang and Mao (2008).

Perceived trust is an important predictor of attitude towards the use and customers intention to use SMS advertising (Gefen, 2000; Gefen and Straub, 2003; Zhang and Mao, 2008). In addition, perceived trust verified the influence on intention to use via the mediating variable of attitude towards use. It is also important to note that perceived trust exerts more intense effect on attitude towards use than perceived utility and subjective norms. This implies that SMS advertising services should depend not only on the operational characteristics but also their perceived utility and perceived trust towards SMS advertising. Hence, SMS advertising developers should consider how they may enhance customer trust when planning and developing SMS advertising campaigns. In Pakistan, customers' trust for use of SMS advertising can be affected by trust and reputation of parent company about which the SMS advertisement is related to. The parent

company can influence customers' attitude and their intentions to use those advertising messages (Kim et al., 2008).

SMS advertising possess technical components and through this study it has been identified that intentions to use SMS advertising can be predicted by technology acceptance model and is technology driven. Perceived utility of SMS advertising plays a significant role in forecasting mobile phone users' intention to use SMS advertising. SMS advertisers should focus on enhancing the utility of SMS advertising message. This can be improved by increasing the relevance of message to consumers (Trappey and Woodside, 2005). Similarly, through location based technology SMS advertisers can provide more relevant information to their customers (Zhang and Mao, 2008).

Overall, it has been indicated through this study that marketers should pay attention to utility and should focus on the development of trust in customers while developing SMS advertising messages. SMS advertising should focus on providing customers useful information on the basis of their profile, location or situation. Most successful SMS advertisers worldwide are well renowned and trusted brands (Merisavo et al., 2007) this is evident from the results of this study also thus identifying the importance of trust on attitude and intentions to use SMS advertising.

References

Adams, D., Nelson, R.R., and Todd, P.A. (1992). Perceived Usefulness, Ease of Use and Usage of Information Technology: A Replication. *MIS* Special *Quarterly, 16*(2), 227–247.

Advertising Section of Advertising Age. (2006, December 4). *Advertising Age,* p. 20.

Agarwal, R., and Prasad, J. (1997). The Roles of Innovation Characteristics and Perceived Voluntariness in the Acceptance of Information

Technologies. *Decision Sciences, 28*(3), 557–582.

Ajzen, I. (1991). The Theory of Planned Behavior. *Origination Behavior and Human Decision Processes, 50,* 179–211.

Arbuckle, J. L. (2009). *Amos 18 User's Guide.* FL, USA: Amos Development Corporation- SPSS Inc.

Bamoriya, H., and Singh, R. (2011). Incentives in Permission Based SMS Advertising: Does it (always) Work – A Special Case of Mginger. *SS International Journal of Economics and Management, 1*(2), 77–96.

Barnes, S.J. (2003). Wireless Digital Advertising: Nature and Implications. *International Journal of Advertising, 21*(3), 399–420.

Bauer, H.H., Reichardt, T., Barnes, S.J., and Neumann, M.M. (2005). *Driving Consumer Acceptance of Mobile Marketing: A Theoretical Framework and Empirical Study*. Retrieved from www.citeseer.ist.psu.edu/viewdoc/summary?doi=10.1.1.137.2625(accessed on July 25, 2013).

Carroll, A., Barnes, S.J., Scornavacca, E. and Fletcher, K. (2007). Consumer Perceptions and Attitudes towards SMS Advertising: Recent Evidence from New Zealand. *International Journal of Advertising, 26*(1), 79-98.

Chaffey, D. (2003). *E-Business and E-Commerce Management*. London: Prentice Hall Pub.

Cheung, W., and Huang W. (2005). Proposing a Framework to Assess Internet Usage in University Education: An Empirical Investigation from A Student's Perspective. *British Journal of Educational Technology, 36*(2), 237–253.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use and User

Acceptance of Information Technology. *MIS Quarterly, 13,* 319–340.

Davis, F. D., Bagozzi, R. P., and Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science, 35*(8), 982–1003.

DeBaillon, L., and Rockwell, P. (2005). Gender and Student-Status Differences in Cellular Telephone Use. *International Journal of Mobile Communications, 3*(1).

Dickinger, A., Murphy, J., and Scharl, A., (2005). *Diffusion and Success Factors of Mobile Marketing.* Retrieved from http://www.ecoresearch.net/download/publications/05-ecra.pdf on June 25, 2013.

Fishbein, M., and Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research.* Reading, MA: Addison-Wesley.

Forbes. (2006, March 3). SMS still top service for Asia/Pacific mobile phone users – IDC. *Forbes.* Available at www.forbes.com/technology/feeds/afx/2006/03/03/afx2567774.html

Fornell, C., and Larker, D.F., (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research, 18,* 39-50.

Gao, J. (2008). *Smart Mobile-AD: An Intelligent Mobile Advertising System.* Retrieved from http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=4539342 on May 17, 2013.

Gao, S., Mokhtarian, P., and Johnston, R. (2007). *Non-normality of Data in Structural Equation Models.* Retrieved from

http://www.uctc.net/papers/839.pdf on July 12, 2013.

Gefen, D. (2000). E-Commerce: The Role of Familiarity and Trust. *Omega, 28*(6), 725–737.

Gefen, D., and Straub, D. W. (2003). Managing User Trust in B2C E-Services. *E-Service Journal, 2*(2), 7–23.

Gefen, D., Karahanna, E., and Straub, D.W. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly, 27,* 51–90.

Honkanen, P., Verplanken, B., and Olsen, S.O. (2006). Ethical Values and Motives Driving Organic Food Choice. *Journal of Consumer Behavior, 5*(5), 420-430.

Jöreskog, K.G., and Sörbom, D. (2006). *LISREL for Windows [computer software]*. Lincolnwood, IL: Scientific Software International, Inc.

Jun, J.W., and Lee, S. (2007). Mobile Media Use and Its Impact on Consumer Attitudes towards Mobile Advertising. *International Journal of Mobile Marketing, 2*(1), 50-8.

Jung, C.G. (1971). *Psychological Types, Collected Works* (Volume 6). Princeton, NJ: Princeton University Press.

Kaasinen, E. (2005). User Acceptance of Mobile Services – Value, Ease of Use, Trust and Ease of Adoption. Retrieved from http://www.vtt.fi/inf/pdf/publications/2005/P566.pdf on August 24, 2013.

Katzstone, A. (2001). *Wireless Revenue: Ads can Work*. Retrieved from http://www.wirelessauthority.com.au/r/article/jsp/sid/445080 on May 22, 2013.

Kim, T. G., Lee, J. H., and Law, R. (2008). An Empirical Examination of the

Acceptance Behaviour of Hotel Front Office Systems: An Extended Technology Acceptance Model. *Tourism Management, 29*(3), 500–513.

Kline, Rex B. (2005). *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: Guilford Press.

Kroeber, W., and Weinberg, P. (2003). The Dual Credibility Model: The Influence of Corporate and Endorser Credibility on Attitudes and Purchase Intentions. *Journal of Marketing Theory and Practice, 10*(3), 1–12.

Leung, L. (2007). Unwillingness-to-Communicate and College Students' Motives in SMS Mobile Messaging. *Telematics and Informatics, 24,* 115-29.

Lin, H.-F. 2007. Predicting consumer intentions to shop online: an empirical test of competing theories. *Electronic Commerce Research and Applications, 6*(4), 433-442.

Luxton, S., and Mahmood, U. (2009). *Mobile Phone Marketing: Challenges and Perceived Attitudes.* Retrieved from www.duplication.net.au/ANZMAC09/papers/ANZMAC2009-315.pdf on April 10, 2013).

McAllister Daniel J. (1995). Affect- and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations. *The Academy of Management Journal, 38*(1), 24-59.

McDonald, R.P., and Ho, M. (2002). Principles and Practice in Reporting Structural Equation Analyses. *Psychological* Methods, 7(1), 64–82.

McKnight, D. H., Choudhury, V., and Kacmar, C. (2002). Developing and Validating Trust Measures for E-Commerce: An Integrative Typology. *Information Systems Research, 13,* 334–359.

Merisavo, M., Sami, Kajalo, Karjaluoto, H., Virtanen, V., Salmenkivi, S., Raulas M. and Leppäniemi, M. (2007). An Empirical Study of the Drivers of Consumer Acceptance of Mobile Advertising. *Journal of Interactive Advertising, 7*(20).Retrieved from www.jiad.org/article92 on May 16, 2013.

Mirbagheri, S. (2010). *SMS Advertising Business Model: Toward Finding Vital Elements of its Value Model.* Retrieved from www.cluteinstitute.com/proceedings/2010_Dublin.../Article%20543.pdf on July 17, 2013.

Moorman, C., Zaltman, G., and Deshpande, R. (1992). Relationships between Providers and Users of Market Research: The Dynamics of Trust Within and Between Organizations. *Journal of Marketing Research, 29,* 314–328.

Nasco, S.A., and Bruner, G.C. (2008). *Comparing Consumer Responses to Advertising and Non-Advertising Mobile Communications. Psychological Marketing, 25*(8), 821–837.

Portio Research. (2012). *Pricing Voice and SMS.* Available at http://www.portioresearch.com/en/blog/2012/04/pricing-voice-and-sms.aspx

Phau, I., and Teah, M. (2009). Young Consumers' Motives for Using SMS and Perceptions towards SMS Advertising. *Direct Marketing: An International Journal, 3*(2), 97-108.

Pulse. (2013). *Pakistan Among Leading Countries with Rising SMS Addiction in Cell Phone Users.* Available at http://weeklypulse.org/details.aspx?contentID=3445andstorylist=16

Rogers, E.M. (2003). Diffusion of Innovations (5th ed.). New York: Free Press.

Shimp, T.A., and Kavas, A. (1984). The Theory of Reasoned Action Applied to Coupon Usage. *Journal of Consumer Research, 11,* 795–809.

Tanakinjal, G.H., Deans, K., and Gray, B.J. (2010). Third Screen Communication and the Adoption of Mobile Marketing: A Malaysia Perspective. *International Journal of Marketing Studies, 2*(1), 36–47.

Taylor, S., and Todd, P.A. (1995). Understanding Information Technology Usage: A Test of Competing Models. *Information System Research, 6*(2), 144-176.

Trappey, R.J., III, and Woodside, A.G. (2005). Consumer Responses to Interactive Advertising Campaigns Coupling Short-Message-Service Direct Marketing and TV Commercials. *Journal of Advertising Research, 45,* 382–401.

Tsang, M.M., Ho, S.C., and Liang T.P. (2004). Consumer Attitudes towards Mobile Advertising: An Empirical Study. *International Journal of Electronic Commerce, 8*(3), 65-78.

Venkatesh, V., Davis, F.D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science, 46*(2), 186–204

Yaniv, G. (2008). Sold on Mobile Marketing: Effective Wireless Carrier Mobile Advertising and How to Make It Even More So. *International Journal of Mobile Marketing, 3*(2), 86–97.

Yi, M. Y., Jackson, J.D., Park, J.S., and Probst, J.C. (2006). Understanding Information Technology Acceptance by Individual Professionals: Towards an Integrative View. *Information and Management, 43*(3), 350-363.

Zhang, J., and Mao, E. (2008). Understanding the Acceptance of Mobile

SMS Advertising among Young Chinese Consumers. *Psychology and Marketing, 25*(8), 787-805.