Relevance of SMS Advertisement for Brand Managers Applying Theory of Reasoned Actions

Yenjit Kongpan[1], Patsara Sirikamonsin[2], Hang Li[3], Kittipong Potimu[4]

Abstract---The objective of the study is to examine the impact of entertainment, informativeness, irritation and credibility on attitude towards SMS advertisement. The target population was Malaysian consumers of products and service who have experienced SMS advertisement. However, sample size was based on 316 responses. The current study has aimed to use convenience sampling in selecting the participants. Also, the current study has applied PLS-SEM analysis technique using SmartPLS version 3.2.8 to test hypothesis. In addition, results show that entertainment was not affecting attitude towards SMS Advertisement. But, informativeness and credibility were significantly affecting the attitude towards SMS Advertisement. However, irritation was not affecting the attitude towards SMS advertisement. Moreover, managerial implication of this research is firstly, in order to overcome the entertainment constraints of SMS messages, advertisers may need to use skip able ads which brings SMS messages to the next stage and requires visual elements such as pictures and videos as well as sound to be included. Similarly, as the study shows the significant impact of credibility so in order to ensure the advertisement's credibility, advertisers should provide consumers with the precise information they want and not something they may view as spam.

Keywords---Entertainment, informativeness, irritation, credibility & attitude towards SMS advertisement.

I. INTRODUCTION

The role of SMS has been quite successful in providing beneficial services in history of telecommunication and produced high revenue as well. Every growing year its capacity to provide has been emerging because of its vast usage (Zabadi *et al.*, 2012). In addition, the important elements in development of SMS included price, access and reliable factors. Also, the aspect of technology has been essential in providing advertisements to consumers by giving best possible mediums and reaching towards many consumers rapidly (Ishaq *et al.*, 2015). However, advertisers need to be highly creative regarding formulating the advertisement and selecting the medium in order to gain the target. Similarly, in order to create new mediums the advertisers has created a new and developed named as SMS (short message service) advertising (Tsang *et al.*, 2004). So, before implementation of the medium SMS it has been deemed to be important to identify the attitudes of consumers regarding SMS advertisements. Additionally, today's organizations highly operate in changing environment because of

[1]*College of Innovation and Management, Suan Sunandha Rajabhat University, Thailand*
E-mail: yenjit.ko@ssru.ac.th
[2]*College of Innovation and Management, Suan Sunandha Rajabhat University, Thailand*
E-mail: patsara.si@ssru.ac.th
[3]*College of Innovation and Management, Suan Sunandha Rajabhat University, Thailand*
E-mail: Lihang2000_cn@hotmail.com
[4]*College of Innovation and Management, Suan Sunandha Rajabhat University, Thailand*
E-mail: dr.toy@hotmail.com

globalization (Zabadi *et al.*, 2012). According to (Berman *et al.*, 2009) it has been suggested to develop advertisements on the basis of consumers' needs regarding products and services which could result in achieving high attraction towards advertisements. Moreover, attracting, entertaining and most importantly reliable information regarding advertisement has been known as essential factors in order to develop consumer attitude towards SMS advertisements (Al Khasawneh & Shuhaiber, 2013). Therefore, current study has aimed to examine the effects of credibility, irritation, informativeness and entertainment on attitudes towards SMS advertisements.

Moreover, SMS advertisement has become one of the most important aspects in today's world but it also has some major problems in its organization (Zabadi *et al.*, 2012). The SMS delivering/receiving might prove to be important and necessary for organizations and consumers as well but constant exposure to it might cause serious damage so the person becomes immune to advertising which could be a problem for organizations (Rajesh *et al.*, 2019). Also, the lack of creativity and relevant information usage in advertisements has also proved to be a major problem for not achieving high attention of consumers (Disastra *et al.*, 2019). Similarly, another problem that could be an hindrance have been the factor of telecom carriers because unless such carriers willingly chose to join the promotion SMS advertisement cannot work (Bakr *et al.*, 2019). The main reason was that carriers were being hesitant in giving away phone numbers. However, another problem that was known that these carriers were not being adaptable towards proper marketing plans like profiling individuals so these consumers could only get relevant and credible information to act upon rather than getting a spam advertisement (Al Khasawneh & Shuhaiber, 2013). Therefore, it was assumed that the core issue in SMS advertising was not targeting the individualized audience in order to provide credible and relevant information and increase consumer attitude towards SMS advertisement (Uddin *et al.*, 2019).

The objective of study is to examine the impact of entertainment, informativeness, irritation and credibility on attitude towards SMS advertisement in Malaysian context.

The following section has been comprised of reviewing of theoretical and empirical literature. The third section based on methodology that included philosophy, research approach, sampling technique, target population and data analysis technique. Fourth section has included data analysis results and its interpretation by using PLS-SEM technique. Fifth and last section has included discussion, conclusion, recommendations and future research directions.

II. LITERATURE REVIEW

This section particularly deals with the critical reviewing of the theoretical and empirical literature related to consumer attitude towards SMS advertisement. This section describes the theoretical underpinnings based on while it also provide critical and detailed discussions on the reviewing of the related past studies.

Theoretical Underpinnings
Theory of Reasoned Action

The theoretical framework for this study is adopted from a well-known theory in marketing, known as the theory of reasoned action (TRA) providing assistance to potential association among attitude, intention and behavior from various researches. The TRA was introduced by (Fishbein, 1979) that helped in understanding the actions of the consumers. The TRA argues that most important factor of reasoned action is the intention of performing the behavior which is inspired by their attitude and social norm (Madden, Ellen, & Ajzen, 1992). This theory is frequently adapted to mobile commerce as well as advertisement using SMS. It is used to this research as the response of the consumers in terms of behavior needs an intentional cognitive action from them (Montano & Kasprzyk, 2015).

Entertainment and Attitude towards SMS Advertisement

Zabadi *et al.* (2012) investigated the important role of advertisement through SMS using the medium of mobile marketing. Also, the attitudes of consumers towards accepting this and different variables influencing the relationship were analyzed. Furthermore, it was proved that different attributes of consumer information, entertainment and credibility of the advertisements SMS was significant to their attitudes towards it. Also, the aspect of irritation was found affecting their attitudes in a negative manner and decreased the value of perspective regarding SMS advertisements. Furthermore, Aslam *et al.* (2016) conducted the study to analyze the attitude of consumer in the aspect of advertising SMS in the context of mobile. Also, the relationship with behavior was examined. Moreover, results had a significant and positive impact of the following factors entertainment, involvement and appeal on increasing the attitude towards advertisement. One factor that was irritation had a negative and insignificant relation. Also, this positive attitude was significant and increased the SMS advertisement. In addition, a high positive relation between this attitude and behavior was noticed. Most importantly, it was found that factor of permission was an important element in increasing the attitude of consumer. Last, the reward factor was also significant in this relationship. Moreover, this is not the first study, many studies have also been conducted in past so as to study the consumer attitudes in terms of Short Message Service advertisement as a medium and to estimate the effectiveness of Short Message Service advertisement.

Also, Rettie and Brum (2001) proposed that the acceptance of SMS is very much dependent on demographic factors like income, education, age and the number of messages received by targeted population. Secondly, Whitepaper's proposition was that the use of Short Message Service is attractive for youth, mainly for youngsters ranging between 15-24 years of age group, to whom, the access to has proven to be very difficult by using other media. In addition, Haig (2002) found that Short Message Service is a wonderful medium of communicating the brand value, it was found to be 50% more successful at building brand awareness as compared with the Television and has 130% more success ratio as compared with the radio. Similarly, respondents actually read the Short Messages on 94% of occasions, and a chunk, as equals as the 23% of respondents use to further communicate these messages by showing or forwarding those marketing messages to a friend or family.

H1.   Entertainment has significant effect on attitude towards SMS advertisement.

Informativeness and Attitude towards SMS Advertisement

Rajesh *et al.* (2019) aimed to analyze the various antecedents of attitudes of consumer that affected their behavior regarding the ads based on mobile SMS. Furthermore, data analysis projected that informative and credibility of the message was significant to increase the value of advertisement and this value had a significant and positive impact on attitude of consumers regarding ads. However, the aspect of irritation was found negative affecting the value. The conclusion was that managers should use the limited and valuable information in the advertisements in order increase the value and attitude towards SMS advertisements. Moreover, Bamoriya (2012) investigated the intention of different users to receive the advertisement SMS and their behavior with the help of technology acceptance model. In addition, results provided some beneficial information that inclusion of TAM was an important element in identifying the intentions. Also, it was found that the factor of utility was highly affecting the attitudes of users. However, ease of use and the factor of trust were also affecting the relationship. Last, the managers were recommended to further increase the utility regarding the SMS so that it could enhance the consumer attitude. Additionally, Barnes (2002) studied that Short Message Service have become very common and popular when it comes about sending messages to customers on their mobile devices from companies. In order to enable customers, interested in obtaining more information of their interest, more and more companies and businesses obtain their

customers' numbers for text messages. This method, using wireless communications, helps in increasing relationships with customer, and facilitates the implementation of both, the promotional activities and the direct marketing.

Moreover, Dickinger *et al.* (2004) studied that the mobile marketing definition that crystal clears the concept of such an advertisement states that the use of wireless media to provide mobile phone users with location, time and personal information which ultimately encourages services, products and ideas, so as to create value for all concerned stakeholders and consumers to get interested in these advertisements. Also,Tsang *et al.* (2004) study stated in accordance with some studies which have also shown that advertising via short message service has relatively greater benefits as this medium of communication allows companies and businesses to communicate with consumers in a real-time environment. Similarly, Fishbein and Ajzen (1977) suggested that in research regarding the marketing and information systems, attitude is an important concept. in information systems and marketing, the study on attitude of masses towards advertisement is an important concept. Furthermore,Chakrabarty and Yelkur (2006) suggested that the attitude of consumer towards the ads, are basically consumer's tendency to respond in a positive or negative way, to a specific message. Likewise, Javid *et al.* (2012) defined the behavior of recipients towards mobile advertising that how consumers react towards some specific mobile ads in a perceived positive or negative way. Attitude is long-term positive or negative evaluation of one's feelings and tendency to work towards a phenomenon or an idea.

H2.   Informativeness has significant effect on attitude towards SMS advertisement.

Irritation and Attitude towards SMS Advertisement

Sabokwigina *et al.* (2013) investigated the main factors which could affect the behavior or attitude of consumer regarding the advertising with SMS mode. Also, a relationship among the factors and attitude was examined. Also, data was analyzed and gave quite influential results indicating that information and credible factors of the ads were highly significant to predict the attitudes of consumers towards advertisements. Although, it was revealed that an increase an irritation and frequency of messages negatively affected the above relationship. Hence, it was important to increase the use of valid and specific information in advertisements to further indulge the consumer attitudes and eventually enhance their perspective towards these ads. In addition, Javeed (2012) focused to examine the major factor of attitude of mobile users in the aspect of advertising. Also, the study analyzed which factors influenced this attitude and in what manner as well. Furthermore, results provided support for hypothesis that the factors of entertainment and irritation did not affect attitudes of consumers regarding advertisements. However, there was statistically a significant relation among informativeness, credibility and developing the attitudes of consumers in the context of advertisements. Also, the age factor of consumers was found not related towards attitude. Although, it was proved that the difference among men and women was significant towards this attitude.

Furthermore, Tsang *et al.* (2004) that because young users are not exposed to conventional advertising methods, these methods were unable to attract young users with agile lifestyle. Youth have always been faster fi compared with elder ones when it comes about the learning of how to use, administer and adjust in accordance with the new technological advancements such as the Internet and mobile phones. For this reason, it seems that the one and only way to capture young customers is no other but the Short Message Service advertising. Additionally, Haghirian and Inoue (2007) suggested that it is very important to understand the view of mobile advertising to identify the attitude towards advertising on mobile devices is similar to the consumer's attitude towards this advertising medium in general and not to focus on one particular advertisement.

H3.   Irritation has significant effect on attitude towards SMS advertisement.

Credibility and Attitude towards SMS Advertisement

Al Khasawneh and Shuhaiber (2018) aimed to address the aspect regarding the acceptance of consumers towards advertisements and analyze what factors influenced their attitudes in developing the acceptance of SMS mode advertisements (mobile marketing). In addition, the results after analysis were indicating that advertising of SMS was significant to the attitudes and acceptance nature of consumers. Also, the results included some values of advertising that were credibility and entertainment and the content of the message were deemed to be clear in order to increase the consumers attitudes towards acceptance of these marketing messages. Additionally, Shadkam (2017) focused to examine the antecedents of attitude of consumer regarding SMS advertising and also the relationship between consumers intention of receiving messages and the behavior responses on these SMS. Additionally, the findings provided that the users that were involved in achieving different benefits from advertisements were significantly related to positive attitude towards it. Also, it was found necessary to provide the control to users regarding ads receiving and viewing and in doing so their acceptance was increased. Also, results provided that trust was an important element and consumers having trust towards the advertisers and their content increased the message acceptance of consumers. Similarly, Chaudhary *et al.*(2016) proposed to address the important relationship of main predictors of advertising and its different consequences and also the mediation effects of it regarding the aspect of Pakistan. Additionally, results supported the hypothesis that providing valid and accurate information with credible sources increased the value of advertisements and irritation factor had no impact on the value at all. Similarly, in return this positive value had a positive and significant impact on increasing the attitude of consumers towards these ads. Also, this value showed a complete mediation effects between infotainment credibility and attitudes of consumers.

However, Andersson *et al.* (2000) proposed that most frequent ads engages younger consumers more than anything else. It has also been endorsed that goals of the advertising campaign can be achieved easily if been facilitated by the SMS ads and in general, the SMS advertising medium. If smartly managed and planned, the significant advantage of Short Message Service promotion is that it is low in cost. The wireless media's capability to transmit relevant information to targeted customers so as to achieve a high rate of response among the receivers of advertisements, which as a return causes the reduction in cost of Short Message Service ads, and is much more productive than the conventional advertising mediums, but should never be used alone. In addition, Zabadi *et al.* (2012) studied that advertisement based on consent is very much distinctive as compared to the conventional annoying advertisement. These messages are just sent to people who, with their own will, requested to keep the updated via message about some particular service, content, or product. Advertisement for some specific product or brand via Short Message Service, contributes in terms of changes in consumer belief system and priority, which creates some specific consumer attitude for advertised products and brands, and highly affects the costumer intention to buy the offerings made by brands.

H4.   Credibility has significant effect on attitude towards SMS advertisement.
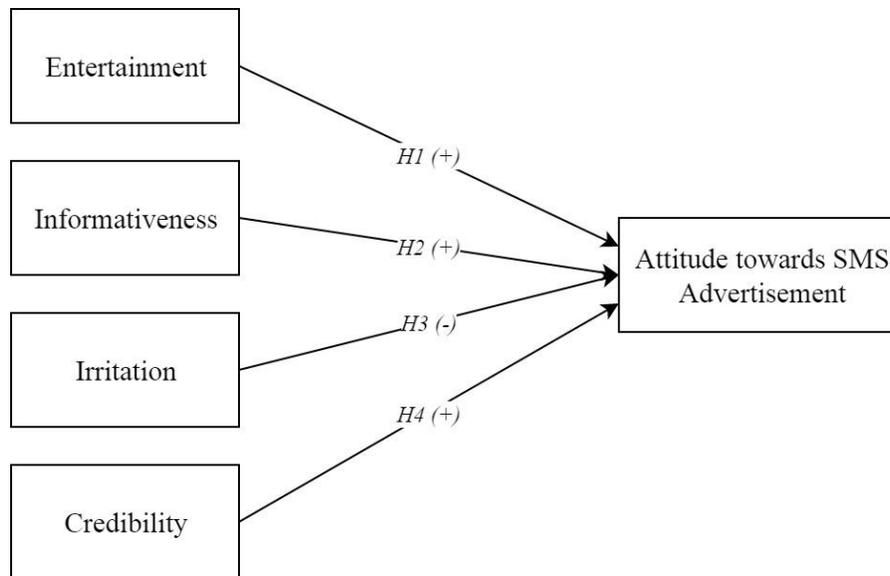
Figure 1: Conceptual Framework

III. METHODOLOGY

The basic concept of positivistic philosophy can be defined as such events that are based on reality and observation of these events as well. Similarly, it also helps in confirming a theory on the basis of collected information (Crossan, 2003). In addition, it is essential in conducting experiments and it avoids or stops the incursion of outside elements. It consist such information that can be derived from experiences and reasoning and then it forms the knowledge (Hughes & Sharrock, 2016).

The primary purpose of research approach is to identify the pattern of data collection. There are two types of data collection named as qualitative and quantitative (Cavana *et al.*, 2001). The term quantitative approach can be defined as the process of collecting numeric or statistical based data. It helps in testing hypothesis that is made on the basis of theory (Creswell, 2002). Also, a deductive approach can be followed in quantitative researches and its purpose is to ensure data relevancy (Al Khasawneh & Shuhaiber, 2018). It can be used to explain and answer questions relevant to objectives of research (Monsen *et al.*, 2009). In deductive approach it basically refers to the testing of hypothesis and reasoning (Neuman, 2013). Therefore, by discussing all the information this study has decided to use quantitative deductive approach to use and collect data. The rationale of using this was that it helped in conducting a broader study with large population and the results could be generalized with high accuracy. Also, deductive approach helped in identifying causal relationships among concepts and their variables and it also provided conclusion with effectiveness without any error and biasness.

Furthermore, the sampling technique allows a researcher to select and decide the sample population of study that could help in providing beneficial information regarding the research objectives (Rubin & Babbie, 2016). There are different sampling techniques probability and non-probability sampling. However, one of the important is non-probability convenience sampling and it is collects data on the basis of availability (Wiersma & Jurs, 2005). Similarly, it can be defined as collecting the data from a group that can be easily contacted and provide relevant information about the research objectives. The basic example of convenience sampling is collecting data from a mall or through Facebook polls (Saunders *et al.*, 2009). Hence, current study has aimed to use convenience sampling in selecting the participants. The reason for using this was that it was easy to use regarding the cost and time management and it also was easy to conduct as well. It also helped in collecting large amount of data in relatively less time with low cost expenses.

Moreover, the data analysis technique allows a researcher to test the hypothesis using the data that has been collected. There are various techniques to conduct data analysis. However, one of the important technique in quantitative approach is PLS-SEM (Chin *et al.*, 2013). The basic concept behind PLS-SEM is that it is method of SEM and conducts hypothesis testing and identifies cause-effect relationships with latent variables (Hair *et al.*, 2016). In this technique there are two models named as structural model and measurement model (Hair *et al.*, 2011a). Therefore, the current study has used SmartPLS version 3.2.8 to test hypothesis. The rationale for using this was that it helped in having effective and attractive graphical outputs and these could be flexible, and it also makes easy to interpret responses and draw conclusive results regarding the cause and effect relationship among variables. It also gives validity and reliability of the data with the help of convergent and discriminant validity.

DATA ANALYSIS

Following table 1 elaborates the frequency distribution of 316 respondents from the sample population.

Table 1: Descriptive Statistics (n = 316)

		Frequency	**Percent**
Gender	Male	209	66.1
	Female	107	33.9
Age	Less than 20 years	83	26.3
	21 years to 30 years	186	58.9
	31 years to 40 years	35	11.1
	41 years and above	12	3.8
Education	Undergraduate	107	33.9
	Graduate	186	58.9
	Post-Graduate	23	7.3
Mobile Usage	Frequently	151	47.8
	Mild Use	106	33.5
	Rare	59	18.7

The table showed that there was a total of 316 participants in the study. Of the 316 respondents, 209 (66.1%) were males and 107 (33.9%) were females. Also, 83 (26.3%) were less than 20 years old, 186 (58.9%) were between 21 to 30 years, 35 (11.1%) were between 31 to 40 years and 12 (3.8%) were 41 years and above. Moreover, 107 (33.9%) were undergraduates, 186 (58.9%) were graduates and 23 (7.3%) were post-graduates. Furthermore, 151 (47.8%) were frequent mobile users, 106 (33.5%) mildly used mobiles and 59 (18.7%) rarely used mobiles.

Measurement Model

The measurement model is based on examining the unidirectional relationships between a latent variable and its measures. It also allows the researcher to analyze the data having outer loadings, convergent validity and discriminant validity using (crossloadings, HTMT ratio and Fornell & Larcker). In addition, following table 2 elaborates the results of measurement model.

Table 2: Measurement Model

		Loadings	Prob.	Alpha	CR	AVE
Attitude towards SMS Ad.	ATT1	0.869	0.000	0.794	0.879	0.708
	ATT2	0.838	0.000			
	ATT3	0.818	0.000			
Credibility	CRED1	0.764	0.000	0.747	0.848	0.653
	CRED2	0.897	0.000			
	CRED4	0.754	0.000			
Entertainment	ENT3	0.913	0.000	0.865	0.935	0.878
	ENT4	0.960	0.000			
Informativeness	INFO2	0.808	0.000	0.726	0.871	0.773
	INFO4	0.945	0.000			
Irritation	IRR1	0.919	0.000	0.724	0.825	0.616
	IRR2	0.762	0.000			
	IRR3	0.652	0.000			

As recommended (Hair *et al.*, 2016), the factor loadings over 0.70 can be retained perfectly, while factor loadings below 0.40 should be deleted, whereas, factor loadings with values greater than 0.40 and less than 0.70 can be retained on convergent validity basis. Also, all the items were significant at 95% confidence interval. Hence, the table showed that all the constructs achieved the construct validity. Also, the Cronbach's Alpha value should be greater than 0.70, while composite reliability value should be greater than 0.80 and the AVE value should be greater than 0.50 as recommended by (Hair *et al.*, 2011b). Hence, the above table showed that all the constructs achieved the convergent validity.

Discriminant Validity

Following table 3discusses the results of discriminant validity using Fornell and Larcker (1981) criterion.

Table 3: Fornell and Larcker (1981) Criterion

	ATT	CRED	ENT	INFO	IRR
Attitude towards SMS Ad.	**0.842**				
Credibility	0.508	**0.808**			
Entertainment	0.463	0.531	**0.937**		
Informativeness	0.594	0.604	0.684	**0.879**	
Irritation	0.326	0.399	0.683	0.442	**0.785**

The table above showed that the bold values in diagonal are greater than the values that are present in their vertical and horizontal settings as recommended by (Fornell & Larcker, 1981), therefore, discriminant validity has been achieved using the Fornell&Larcker (1981) criterion.

Following table 4shows results of discriminant validity using crossloadings.

Table 4: Crossloadings

	ATT	CRED	ENT	INFO	IRR

ATT1	**0.869**	0.448	0.369	0.510	-0.279
ATT2	**0.838**	0.404	0.383	0.481	-0.283
ATT3	**0.818**	0.429	0.418	0.507	-0.262
CRED1	0.374	**0.764**	0.507	0.410	-0.364
CRED2	0.533	**0.897**	0.462	0.564	-0.385
CRED4	0.213	**0.754**	0.260	0.491	-0.128
ENT3	0.343	0.526	**0.913**	0.585	-0.584
ENT4	0.500	0.482	**0.960**	0.684	-0.684
INFO2	0.352	0.558	0.710	**0.808**	-0.532
INFO4	0.632	0.532	0.559	**0.945**	-0.321
IRR1	-0.364	-0.367	-0.665	-0.467	**0.919**
IRR2	-0.181	-0.186	-0.516	-0.163	**0.762**
IRR3	-0.116	-0.440	-0.335	-0.368	**0.652**

The table above showed that the factor loadings of constructs were greater in their own constructs compared to their loadings in other constructs as recommended by (Hair *et al.*, 2013), therefore, discriminant validity has been achieved using crossloadings.

Following table 5discussabout the results of discriminant validity using HTMT ratio.

Table 5: Heterotrait-Monotrait (HTMT) Ratio

	ATT	**CRED**	**ENT**	**INFO**	**IRR**
Attitude towards SMS Ad.					
Credibility	0.594				
Entertainment	0.541	0.632			
Informativeness	0.731	0.834	0.893		
Irritation	0.393	0.533	0.781	0.638	

The table above showed that all the values in the table were below the threshold value of 0.90 as recommended by (Henseler *et al.*, 2015), therefore, discriminant validity has been achieved using HTMT ratio.

Structural Model

It examines the relationships between latent variable and the disturbance or error present in equations. Similarly, it helps in giving results or the impact of one variable onto other and identifies accurate results with enhanced understanding. It comprises of path analysis and predictive relevance.

Hypothesis-testing using PLS-SEM

Following table 6 presents path analysis for hypotheses testing and predictive relevance as well.

Table 6: Path Analysis

	Estimate	Prob.	Decision
Entertainment → Attitude towards SMS Ad.	0.041	0.447	Rejected
Informativeness → Attitude towards SMS Ad.	0.421	0.000	Accepted
Irritation → Attitude towards SMS Ad.	-0.023	0.699	Rejected
Credibility → Attitude towards SMS Ad.	0.223	0.000	Accepted

R-Square = 0.390; Q-Square = 0.262

The table above showed that entertainment (0.041, $P > 0.05$) was not affecting the attitude towards SMS Ad. But, informativeness (0.421, $P < 0.05$) and credibility (0.223, $P < 0.05$) were significantly affecting the attitude towards SMS Ad. However, irritation (-0.023, $P > 0.05$) was not affecting the attitude towards SMS ad. Moreover, all the constructs had 39% impact on the dependent constructs as denoted by the R-square value (0.390). Also, the value of Q-square was also greater than absolute zero.
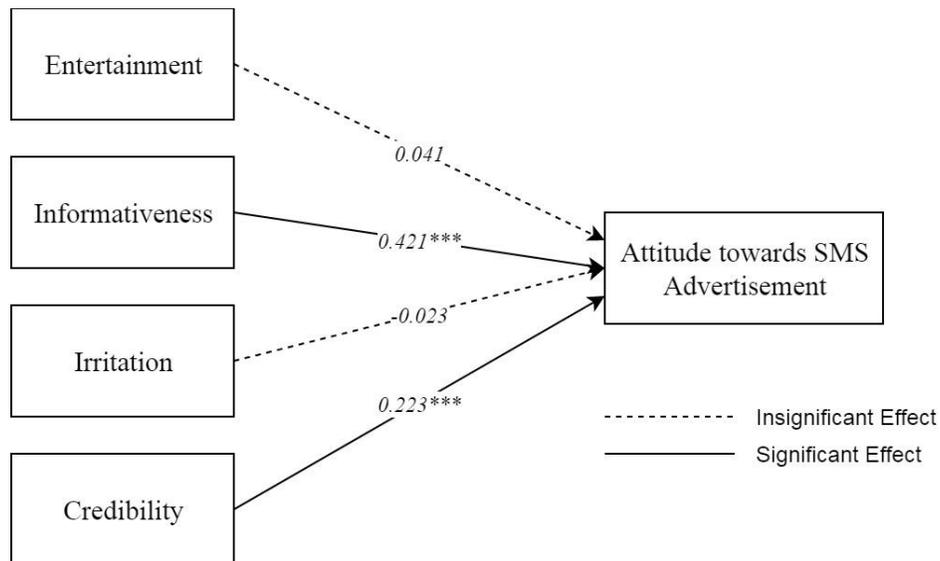

Figure 2: Estimated Results using PLS-SEM

IV. CONCLUSION AND RECOMMENDATIONS

The purpose of this analysis is to determine the impact of the four factors that influence Malaysian's customer attitude towards SMS advertisement, namely entertainment, informativeness, irritation and credibility, of SMS ads. Responses were collected from Malaysian consumers of products and service who have experienced SMS advertisement through

questionnaire. For data analysis, the study adopted the PLS-SEM approach, also known as partial least square simulation of structural equations.

The current study showed that informativeness and credibility are two main features of SMS advertising which have a strong influence on Malaysian consumers' attitude towards SMS advertising, so marketers need to establish SMS ads based on the two features listed above. These findings of our study are consistent with (Javid *et al.*, 2012; Zabadi *et al.*, 2012) which stated that SMS advertising can attract more customers but only if it provides rich and practical details in SMS ads. The study also shows that there is a negative correlation between consumer perceptions of SMS ad irritation and overall consumer attitudes to SMS ads. This result is consistent with the previous study conducted by (Chowdhury *et al.*, 2006; Okazaki & Taylor, 2008).The respondents held negative attitudes about getting mobile advertising. This could have been that they find SMS ads irritating (Dickinger *et al.*, 2004; Mansur, 2010; Zabadi *et al.*, 2012). The study also found an insignificant positive relationship between entertainment and attitude towards advertisement. This implies that management should need to consider the entertainment aspect of SMS ads sent to consumers. Delivering games and prizes to cell phone customers is a successful way of attracting and retaining customers (Andersson *et al.*, 2000; Okazaki & Taylor, 2008).

The managerial implications of this research are for marketers as well as media and marketing professionals to help them better understand the mechanisms and factors leading to more successful mobile advertising campaigns.

Firstly, in order to overcome the entertainment constraints of SMS messages, advertisers may need to use skippable ads which brings SMS messages to the next stage and requires visual elements such as pictures and videos as well as sound to be included. Marketers should also consider creating funny SMS ads as these can help attract readers ' interest. In short, Adverts should be designed in such a way that they successfully capture the attention of the viewer.

The association between customer perception of SMS advertising irritation and consumer behavior towards SMS ads shows that advertisers need to ensure that messages are sent to customers during the day at a reasonable time. A guideline is that when delivering SMS announcements avoid sending advertisements until midday because users may be busy or asleep.

Marketers must also ensure that only relevant information is sent to targeted consumers. Consumers trust fast, straight-to - the-point, SMS ads that address information relevant to their interests. Advertising firms are well advised to carefully design their mobile advertising ads and thoroughly prepare their mobile advertising strategies and target groups.

As the study shows the significant impact of credibility so in order to ensure the advertisement's credibility, advertisers should provide consumers with the precise information they want and not something they may view as spam. It is possible to ascertain the credibility of the advertisers by delegating the duty of submitting SMS ads to advertising agencies concerned.

The results of this study proposes that as this study used the smaller sample size, larger sample size of the respondents could be used by the researchers in future and random sampling techniques can be applied for the selection of respondents for purpose of conducting the study. As attitudes towards Short Message Service ads are measured as a whole, on a scale comprising of the single item, future researches can be conducted by designing a whole new tool for measurement, which can include more items in terms of consumer attitude towards Short Message Service advertisement. It is a well declared reality that majority of the respondents of this study were between 16-29 years of age groups. For this reason, by implying a broader sample of consumers which should comprise of distinct age groups, further researches should be conducted. Permission based marketing is another factor that must be considered in future researches, this includes sending Short Message Service ads specifically to people who are willingly accepting these ads.

REFERENCES

[1]   Al Khasawneh, M., & Shuhaiber, A. (2013). A comprehensive model of factors influencing consumer attitude towards and acceptance of sms advertising: An empirical investigation in jordan. *International Journal of Sales & Marketing Management Research and Development, 3*(2), 1-22.

[2]   Al Khasawneh, M.H., & Shuhaiber, A. (2018). Developing and validating a comprehensive model of factors influencing consumer acceptance of sms advertising: Empirical evidence using sem-pls. *IJBIS, 27*(3), 298-330.

[3]   Andersson, A., Nilsson, J., & Nilsson, A. (2000). *Wireless advertising effectiveness. Evaluation of an sms advertising trial.* Paper presented at the Masters Thesis in Marketing, Stockholm School of Economics.

[4]   Aslam, W., Batool, M., & Ul Haq, Z. (2016). Attitudes and behaviors of the mobile phones users towards sms advertising: A study in an emerging economy. *Journal of Management Sciences, 3*(1), 63-80.

[5]   Bakr, Y., Tolba, A., & Meshreki, H. (2019). Drivers of sms advertising acceptance: A mixed-methods approach. *Journal of Research in Interactive Marketing*.

[6]   Bamoriya, H. (2012). Sms advertising in india: Is tam a robust model for explaining intention? *Acta Universitatis Danubius. Œconomica, 8*(3), 17-27.

[7]   Barnes, S.J. (2002). Wireless digital advertising: Nature and implications. *International journal of advertising, 21*(3), 399-420.

[8]   Berman, S.J., Battino, B., Shipnuck, L., & Neus, A. (2009). The end of advertising as we know it *Television goes digital* (pp. 29-55): Springer.

[9]   Cavana, R.Y., Delahaye, B.L., & Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*: John Wiley & Sons Inc.

[10]   Chakrabarty, S., & Yelkur, R. (2006). The effects of ad irritation on brand attitudes. *Journal of Promotion Management, 11*(2-3), 37-48.

[11]   Chaudhary, N.I., Bilal, A., & Rasool, Z. (2016). Influencing the attitude towards sms advertisement: An empirical study in pakistan. *Pakistan Business Review, 18*(3), 675-691.

[12]   Chin, W.W., Thatcher, J.B., Wright, R.T., & Steel, D. (2013). Controlling for common method variance in pls analysis: The measured latent marker variable approach *New perspectives in partial least squares and related methods* (pp. 231-239): Springer.

[13]   Chowdhury, H.K., Parvin, N., Weitenberner, C., & Becker, M. (2006). Consumer attitude toward mobile advertising in an emerging market: An empirical study. *International Journal of Mobile Marketing, 1*(2).

[14]   Creswell, J.W. (2002). *Educational research: Planning, conducting, and evaluating quantitative*: Prentice Hall Upper Saddle River, NJ.

[15]   Crossan, F. (2003). Research philosophy: Towards an understanding. *Nurse Researcher (through 2013), 11*(1), 46.

[16]   Dickinger, A., Haghirian, P., Murphy, J., & Scharl, A. (2004). *An investigation and conceptual model of sms marketing*. Paper presented at the 37th Annual Hawaii International Conference on System Sciences, 2004. Proceedings of the.

[17]   Disastra, G.M., Hanifa, F.H., Wulandari, A., & Sastika, W. (2019). *The influence of advertising value on advertising attitude and its impact on purchase intention.* Paper presented at the Social and Humaniora Research Symposium (SoRes 2018).

[18]   Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research.

[19]   Fornell, C., & Larcker, D.F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research, 18*(3), 382-388.

[20]   Haghirian, P., & Inoue, A. (2007). An advanced model of consumer attitudes toward advertising on the mobile internet. *International Journal of Mobile Communications, 5*(1), 48-67.

[21]   Haig, M. (2002). *Mobile marketing: The message revolution*: Kogan Page Publishers.

[22]   Hair, J.F., Hult, G.T.M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (pls-sem)*: Sage Publications.

[23]   Hair, J.F., Ringle, C.M., & Sarstedt, M. (2011a). Pls-sem: Indeed a silver bullet. *Journal of Marketing theory and Practice, 19*(2), 139-152.

[24]   Hair, J.F., Ringle, C.M., & Sarstedt, M. (2011b). Pls-sem: Indeed a silver bullet. *Journal of Marketing theory and Practice, 19*(2), 139–152.

[25]   Hair, J.F., Ringle, C.M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long range planning, 46*(1-2), 1-12.

[26]   Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science, 43*(1), 115-135.

[27]   Hughes, J.A., & Sharrock, W.W. (2016). *The philosophy of social research*: Routledge.

[28]   Ishaq, H.M., Javed, A., & Karim, Y. (2015). Determining the role of content and frequency of advertising sms in predicting attitude of consumers toward sms advertisement. *Abasyn University Journal of Social Sciences, 8*(2), 278-297.

[29]   Javeed, A. (2012). Attitude of pakistani consumers towards sms advertising. *International Journal of Sciences, 19*(2), 124-136.

[30]   Javid, M.H., Namin, A.T., & Noorai, M. (2012). Prioritization of factors affecting consumers' attitudes toward mobile advertising. *Journal of Basic and Applied Scientific Research, 2*(9), 9293-9300.
[31]   Jermsittiparsert, K. (2019). Impact of Facebook Advertising on Purchase Intention. (Presented at 2019 International Conference on E-Business and Internet, November 9-11, 2019, Clarion Congress Hotel Prague, CZECH REPUBLIC).
[32]   Mansur, Y. (2010). The blessed sms sacrifice. *Alarabiya news channel. Retrieved January, 15*, 2013.
[33]   Monsen, K.A., Westra, B.L., Yu, F., Ramadoss, V.K., & Kerr, M.J. (2009). Data management for intervention effectiveness research: Comparing deductive and inductive approaches. *Research in nursing & health, 32*(6), 647-656.
[34]   Neuman, W.L. (2013). *Social research methods: Qualitative and quantitative approaches*: Pearson education.
[35]   Okazaki, S., & Taylor, C.R. (2008). What is sms advertising and why do multinationals adopt it? Answers from an empirical study in european markets. *Journal of Business Research*.
[36]   Rajesh, S., Raj, G., Dhuvandranand, S., & Kiran, D.-R. (2019). Factors influencing customers' attitude towards sms advertisement: Evidence from mauritius. *Studies in Business and Economics, 14*(2), 141-159.
[37]   Rettie, R., & Brum, M. (2001). M-commerce: The role of sms text messages, in the proceedings of the fourth biennial international conference on telecommunications and information markets (cotim2001). *Karlsruhe, Germany*.
[38]   Rubin, A., & Babbie, E.R. (2016). *Empowerment series: Research methods for social work*: Cengage Learning.
[39]   Sabokwigina, D., Malima, G., & Mpogole, H. (2013). *Sms advertising in tanzania: Factors affecting consumer attitudes.* Paper presented at the 2013 IST-Africa Conference & Exhibition.
[40]   Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*: Pearson education.
[41]   Shadkam, M. (2017). Consumer's attitude to receive and response to sms advertising. *International Journal of Business Information Systems, 24*(1), 69-90.
[42]   Tsang, M.M., Ho, S.-C., & Liang, T.-P. (2004). Consumer attitudes toward mobile advertising: An empirical study. *International journal of electronic commerce, 8*(3), 65-78.
[43]   Uddin, M.J., Kalam, A., Uddin, M.M., & Jaman, S.M.S. (2019). Sms advertising and its relationship with customer purchase intention of value added services. *Global Journal of Management And Business Research*.
[44]   Wiersma, W., & Jurs, S.G. (2005). Research methods in education: An introduction.
[45]   Zabadi, A.M.A., Shura, M., & Elsayed, E. (2012). Consumer attitudes toward sms advertising among jordanian users. *International Journal of Marketing Studies, 4*(1), 77.