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**Keywords:** purchase intention, SMS advertisement, value added service, entertainment, personalization.

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# SMS Advertising and its Relationship with Customer Purchase Intention of Value Added Services

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## I. INTRODUCTION

The development of high-tech devices has to lead to a change in consumers' habits over time. Organizations are now in constant search for better ways to reach their target audience. Advances in technology not only make our lives easier but also provides many opportunities -along with challenges- for marketers. Many companies spend so much money on advertising, sales promotion, point of purchase displays and other marketing communications only to discover that many people don't even remember the product or promotion. Consumers are confronted every day with a large number of advertisements, which exceeds their information - processing capabilities. Therefore,

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consumers filter out excess visual and aural marketing stimuli which develop such uncertainty of marketers who try to draw the consumers' attention (Salem, 2016).

Mobile phones and their ever-growing popularity is one of the most important opportunities for marketers to promote their product and services (Okazaki and Taylor, 2008). The rapid increase of mobile phones use has introduced new delivery methods for both marketers and advertisers through SMS in accessing potential customers. SMS was defined as a Short Message Service using an internet network to be sent to a certain customer's through a digital cellular network. As a sort of direct and one-on-one advertising, SMS advertising creates opportunities to send specific customized advertising messages to individuals, provided that their consent is taken first. SMS started drawing much attention of the consumer and is now classified as a powerful means of communication, due to its cost-effectiveness (Bamba and Barnes, 2006).

The mobile operators are the fastest growing companies in the telecommunication industry in Bangladesh. There are six mobile operators in Bangladesh have 157.048 million mobile subscribers in 2018 (www.btrc.gov.bd). Mobile operators offer diversified value-added services (VAS) such as welcome tune, missed call alert, sports services, news services, and directory services, etc. to their customer through SMS advertisement. The size of the country's telecom-related VAS is more than Tk. 100 crore (The Daily Star, 10/07/2018) and it is growing significantly.

Several studies have been conducted on SMS advertising and related issues. Almossawi (2014) conducted a study and found that young consumers' attitudes towards SMS advertising were determined by five SMS attributes: entertainment value, informativeness, credibility, personalization, and irritation level. Dix et.al (2016) conducted the study to examine the drivers of acceptance of short message services (SMS) advertising and how it is still relevant and active in South Korea. In South Africa, consumers' perceptions of the entertainment value, informativeness, and credibility of SMS advertisements are positively correlated to consumers' overall attitudes towards SMS advertisements (Waldt et al., 2009). Awan and Hassan (2015) found that SMS marketing is a new tool for

introducing products and services and attracting new customers. SMS advertising has a number of benefits and values for both business firms and customers were this tool allows immediate communication with customers at all time were marketer's wish to communicate with target customer's (Tsang et al., 2004). Mobile marketing (SMS) advertising messages provide customers of a number of benefits who use a caller network (Heinonen and Strandvik, 2002).

Drossos et al. (2007) studied SMS advertising effectiveness and found that the use of rational appeals leads to more positive attitudes and purchase intentions even on a 'feel' product. Haq (2012) studied attitudes toward SMS advertising in India and found appeal to be the most important attribute affecting consumer attitudes toward mobile advertising. The attitude of the Indian consumers towards SMS advertising has been reflected in terms of privacy, irritation (anger), prior permission, time of sending, the local language, operating knowledge and consumer preferences (Kumar, 2013). Barwise and Strong (2002) argued that consumers will respond to messages that grab their attention; either through humor, relevancy, or messages which have curiosity value. Consumers' perception of the irritation aspect of SMS advertisements is negatively correlated with consumers' attitudes towards SMS advertisements (Zabadi et al., 2012).

Carroll et al. (2007) have stated that factors such as the content of the message, consent, and the control of service providers over the sent message, dispatch time and frequency of the messages were effective on acceptance of mobile advertising. Again Brackett and Carr (2001) of customer's buying decisions towards mobile marketing SMS message shows the relationship with customers buying decisions.

A recent study by Shin and Lin (2016) on location-based mobile advertising revealed that messages that are perceived as useful and entertaining are less likely to be avoided by medium to heavy mobile phone users. Alam et al. (2015) found most of the mobile marketing positively influence buying intention in terms of convenience, brand image, and information sufficiency, while irritation or noise and payment security are taken as inhibiting elements. Again, Hanley and

Becker (2008) have laid stress on the fact that college students mostly do not favor receiving SMS advertisement. Furthermore, most of the previous studies have examined SMS marketing in the western context, and little attention has been paid to the investigation of such a strategy in Bangladesh perspective. So, the researchers' aim is to find out the relationship of SMS advertisement with consumer purchase intention of value-added services of mobile operators in Bangladesh.

## II. MATERIALS AND METHODS

This study was descriptive in nature. Two wards from Rajshahi City Corporation ward no: 13 and ward no: 24 were purposively selected for this study. The population of the study was the users of mobile phone from two wards. As the actual number of population was unknown to the researcher so, 156 respondents were selected for collecting primary data through convenience method. The primary data for this study were collected through a self-administrated questionnaire. Five factors of SMS advertising were considered (In formativeness, Entertainment, Annoyingness, Personalization, Trustworthiness) and a five-point Likert scale (R. Likert 1932) (1 = strongly disagree and 5 = strongly agree) was used to evaluate the respondents' opinion. Questionnaires were distributed among 156 respondents and 142 completely filled up questionnaires were authentic for a research study. Besides primary data, secondary data were collected from manuscripts, various books, journals, articles, research papers, newspapers, internet web site, etc. Collected quantitative data from the respondents were analyzed using the Statistical Package for Social Science (SPSS) software. Simple percentage method, Correlation techniques were used in this study to evaluate the result. We check the reliability of all variables. Reliability is usually measured by Cronbach's alpha, which shows internal consistency. Cuie ford (1965) argues for a Cronbach value beyond ( $\alpha = .7$ ) to be acceptable and reliable. Results are considered reliable when their values are greater than 0.5. For this purpose, the reliability of each construct is shown in the following table.

Table 1: Reliability Analysis

Variables	Number of items	Cronbach's Alpha
Consumer purchase intention	3	0.727
In formativeness	4	0.812
Entertainment	4	0.641
Annoyingness	4	0.683
Personalization	3	0.764
Trustworthiness	4	0.719

Source: Field survey data, October- December 2018

The Cronbach's Alpha value of consumer purchase intention is .727, in formativeness is .812, entertainment is .641, annoyingness is .683, personalization is .764 and trustworthiness is .719 respectively. It shows that all variables have reliability in an acceptable range.

### III. RESULTS AND DISCUSSION

*Table 2:* Demographic characteristic of the respondents

Demographics	Number of Respondents	Percentage
Gender wise		
Male	104	73.24
Female	38	26.76
Total	142	100.00
Age wise		
18-25	49	34.51
26-35	57	40.14
36-45	23	16.20
46+	14	9.86
Total	143	100.00
Educational qualifications wise		
Below SSC	3	2.12
SSC	5	3.52
HSC	13	9.15
Graduate	68	47.89
Postgraduate	53	37.32
Total	142	100.00
Profession wise		
Unemployed	9	13.38
Service	73	45.77
Business	44	30.99
Others	16	9.86
Total	142	100.00
Monthly income wise (Tk.)		
<20,000	21	14.78
20001- 30,000	18	12.68
30,001-40,000	55	38.73
40,001-50,000	37	26.06
50,000>	11	7.75
Total	142	100.00

*Source: Field survey data, October- December 2018*

The demographic features were presented by analyzing gender, age, educational qualifications, profession and monthly income of the respondents. The respondents were comprised of 142 individuals of which the 26.76% were female and 73.24% male. Highest 40.14% belonged age 26-35 years, 34.51% respondent's age was 18-25 years. Only 2.12% of respondents were below SSC, highest 47.89% respondents graduate degree, 37.32% of respondents educational qualification was postgraduate degree. 13.38% of respondents were unemployed, the highest 45.77% of respondents were service holder and 30.99%

respondents were a businessman. 14. 78% of respondents whose monthly income was below 20,000 (taka of Bangladesh). 38. 73% of respondents monthly income was between 30,000 to 40,000 (taka of Bangladesh) and only 7.75% of respondents whose monthly income up-to 50,000 (taka of Bangladesh).

Table 3: Respondents opinion towards different variables of SMS advertising

	Variables	Number of Respondents (%)				
		SD	D	N	A	SA
	In formativeness					
Q 1	Messages provide me current information	9.2	9.9	5.6	46.5	28.9
Q 2	Message content is valuable to me	14.8	19.7	9.9	25.4	30.3
Q 3	Company provide actual sales offer through SMS	16.2	14.8	6.3	36.6	26.1
Q 4	SMS touch my area of interest	12.0	5.6	14.8	44.4	23.2
	Entertainment					
Q 1	SMS advertisement is funny and excitement	6.3	9.2	4.9	31.0	48.6
Q 2	Message is very attractive to me	16.9	23.9	7.0	32.4	19.7
Q 3	SMS advertising is entertaining	7.7	13.4	10.6	44.4	23.9
Q 4	Advertising makes me pleasant and satisfied	9.2	10.6	7.7	33.1	39.4
	Annoyingness					
Q 1	Messages are annoying and waste of time	24.6	31.0	5.6	20.4	18.3
Q 2	The content of messages are generally irritating	7.7	6.3	9.2	54.2	22.5
Q 3	Advertisement messages are deceptive	24.6	31.0	4.2	19.7	20.4
Q 4	Quantity of messages are disturbing	6.3	7.7	5.6	31.7	48.6
	Personalization					
Q 1	Message provide useful personal information	15.5	28.2	9.9	22.5	23.9
Q 2	SMS advertising destroyed privacy of individual	28.9	35.9	7.7	16.9	10.6
Q 3	Messages are shareable to other person	19.0	16.9	12.7	21.8	29.6
	Trustworthiness					
Q 1	SMS advertising act as a reference for purchasing	13.4	10.6	8.5	41.5	26.1
Q 2	I trust SMS advertisements	19.0	30.3	6.3	27.5	16.9
Q 3	I am impressed on SMS advertisements	16.9	7.0	4.9	44.4	26.8
Q 4	SMS advertisement is reliable to me	12.7	27.5	10.6	32.4	16.9
	Purchase Intention					
Q 1	I had an intention to receive SMS advertising	21.1	27.5	6.3	19.0	26.1
Q 2	SMS has positive influence on purchase intention	6.3	4.9	4.2	50.0	34.5
Q 3	SMS advertising grow my purchase intention	8.5	12.0	5.6	28.9	45.1

Note: SD = Strongly disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly agree

Hypothesis 1: There is a positive significant relationship between in formativeness of SMS advertisement and consumer purchase intention.

The respondent provides their valuable opinion about the information on SMS advertisement. It was found from table 3, 28.9% of respondents strongly agree and 46.5% respondents were agreed that SMS advertisement provides current information. 30.3% of

respondents were strongly agreed and 25.4% respondents agree that the content of SMS advertisement was valuable for them, where 19.7% of respondents disagreed with this statement. 36.6% of respondents were agreed and 26.6% strongly agree that SMS advertisement provides actual sales offer. 44.4% agree and 23.2% strongly agree that the information on SMS advertisement touches their interest. It was

observed from table 4 that there is a significant positive correlation between informativeness of SMS advertisement and consumer purchase intention of value-added services ( $r = .702^{**}$ ,  $p = .000 < 0.05$ ). The relationship is significant at the 0.01 level (2-tailed). So, the hypothesis is accepted.

*Hypothesis 2:* There is a positive significant relationship between entertainment and consumer purchase intention.

Table 3 shows the highest 48.6% of respondents were strongly agreed and 31.0% agreed that SMS advertisement is fun and excitement to them;

on the other hand, only 9.2% respondents disagreed with this statement. 32.4% of respondents told that SMS advertisement is attractive, 23.9% of respondents disagreed with this statement. 44.4% of respondents were agreed and 23.9% strongly agreed that SMS advertisement is entertaining; on the other hand, 13.4% of respondents disagreed with this statement. 39.4% of respondents strongly agreed and 33.1% of respondents agreed that they were pleased and satisfied towards SMS advertisement. It was found from table 4 that, there is a positive correlation between entertainment and consumer purchase intention ( $r = .569^{**}$ ,  $p = .000 < 0.05$ ).

Table 4: Pearson Correlation Result of the Variables

Variables	Purchase Intention	
Informativeness	Pearson Correlation	.702**
	Sig. (2-tailed)	.000
	N	142
Entertainment	Pearson Correlation	.569**
	Sig. (2-tailed)	.000
	N	142
Annoyingness	Pearson Correlation	.813**
	Sig. (2-tailed)	.000
	N	142
Personalization	Pearson Correlation	.221**
	Sig. (2-tailed)	.000
	N	142
Trustworthiness	Pearson Correlation	.304**
	Sig. (2-tailed)	.000
	N	142

\*\* Correlation is significant at the 0.01 level (2-tailed)

*Hypothesis 3:* There is a positive significant relationship between annoyingness to SMS advertisement and consumer purchase intention.

20.4% of respondents were agreed and 18.3% of respondents strongly agreed that SMS advertising is a waste of time; on the other hand 31.0% and 24.6% respondents disagreed with this statement found from table 3. 54.2% respondents were filling that the content of SMS advertisement is generally irritating; on the other hand only 6.3% of respondents disagreed with this statement. 20.4% of respondents were strongly agreed that the messages are deceptive; on the other hand, the highest 31.0% disagreed. The maximum number of respondents 48.6% was strongly agreed 31.7% of respondents agreed that the quantity of messages is disturbing; only 6.3% of respondents provide different argument with this statement. It was found from Table 4 that there is a strong and positive significant relationship between annoyingness to SMS advertisement and purchase intention of value-added services of mobile

operators ( $r = .813^{**}$ ,  $p = .000 < 0.05$ ). So, the hypothesis is accepted.

*Hypothesis 4:* There is a positive significant relationship between personalization and consumer purchase intention.

It was found from table 3, 23.9% of respondents were strongly agreed and 22.5% respondents were agreed that SMS advertisement provides useful personal information. On the other hand, 28.2% of respondents disagreed with this statement. Highest 35.9% of respondents disagreed and 28.9% respondents strongly disagree that SMS advertising hampered the privacy of an individual; on the other hand, 16.9% of respondents told that advertising hampered the privacy of the individual. 29.6% of respondents were strongly agreed and 21.8% respondents agreed that messages are shareable to another person; on the other hand, 19.0% of respondents disagreed with this statement. There is a low but positive significant relationship between

personalization and consumer purchase intention ( $r = .221^{**}$ ,  $p = .000 < 0.05$ ) found from table 4.

*Hypothesis 5:* There is a positive significant relationship between trustworthiness of SMS advertisement and consumer purchase intention.

41. 5% of respondents were agreed and 26. 1% were strongly agreed that SMS advertising act as a reference for purchasing; on the other hand, 13. 4% of respondents were strongly disagreed found from table 3. Highest 27. 5% of respondents trust SMS advertisement and 30. 3% respondents disagree with them. 44. 4% of respondents were strongly impressed on SMS advertisement and 32. 4% of respondents were told that SMS advertisement is reliable. It was found from Table 4 that there is a low but positive significant relationship between the trustworthiness of SMS advertising and consumer purchase intention ( $r = .304^{**}$ ,  $p = .000 < 0.05$ ) of value-added services of mobile operators. So, the hypothesis is accepted.

#### IV. CONCLUSION

The mobile phone is an essential part of our daily lives. There are six mobile operators operates their activities in Bangladesh. They continuously strive and want to gain a sustainable competitive advantage in the marketplace. Therefore, they undertake SMS advertising as a promotion and marketing strategy for selling value-added services (VAS) to their ultimate customer. According to study results, 26.76% respondents were female and 73.24% were male, highest 40.14% respondents were belonged age 26- 35 years, highest 47.89% respondents were a graduate degree holder and highest 45.77% respondents were service holder. The maximum number of respondents agree that SMS advertising provides current information to them, the company provides actual information through SMS advertisement, they also argue that SMS advertisement is funny, exciting, reliable, personalize, entertaining and trustful. Respondents also told that too much advertising is irritating and disturbing. Result also shows that there is a positive significant correlation between the variables and the highest correlation exist annoyingness to SMS advertisement and consumer purchase intention of value-added services of mobile operators ( $r = .813^{**}$ ,  $p = .000 < 0.05$ ). So, it can be concluded that though SMS advertising is a strong promotional weapon for the organization, the marketers should instead focus on crafting SMS messages perfectly tailored for their target audience; and try to send these messages at the right time and place. This research focuses on the relation between SMS advertising and consumer purchase intention of value-added services of mobile operators. This research only conducted in Rajshahi district, Bangladesh. The same research can also be done to take into account another part of the country for other product and services.

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