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SMS ADVERTISEMENT AND PURCHASING INTENTIONS: AN EMERGING MARKET PERSPECTIVE

Abstract

This study sought to investigate and understand customer behavior that determines attitudes in relation to SMS advertising and purchase intentions in Ghana. The quantitative method was used with simple random sampling technique in selecting the respondents. 485 questionnaires were issued out, 420 were returned and 400 used as the sample size. Structural equation modelling was employed to analyze the relationship amongst the variables. The study findings supported the hypothesis that Informative SMS advertisement, entertaining SMS advertisement, credibility of SMS advertisement and irritability of SMS advertisement all have positive influence on purchasing intentions of customers.

Key Words: SMS Advertisement; SMS Advertising; Purchase Intentions

According to ITU (2011), mobile phones that are compatible with short message service application are used by about 5.9 billion people (that is 87 per cent of the global population and 79% of developing nations) while the smartphone business has seen a growth from $123.9 million pieces purchases in 2007 to $147.1 million in 2016 (IDC, 2016). Lastly, the amount of money spent on social media ads was projected to increase by 72% from 2016-2019, which was valued at US$ 50 billion (Zenith, 2016). In sum, social media advertisement has caught the attention of marketers' and researchers' (Alalwan, 2018; Saxena & Khanna, 2013), while this huge investment in the industry raises questions concerning the usefulness of such ads (Arora & Agarwal, 2020). In terms of penetration and access, mobile internet user penetration has been reported to have already surpassed over 50% of the world's population. Also, it was found that the average time spent every day to access online content from mobile devices (smartphones, tablet, computers or wearable devices such as smart watches etc.) was 185, 110 and 43 minutes for teenagers, working professionals between the ages of 25–45 and seniors of 45years and above (Statista, 2016), respectively. Mobile phone subscriptions across the world is also forecasted to reach 5.7 billion by the end of 2020, according to Statista (2016). Thus, the mobile

communication system is an integral part of people's lives, which has increased mobile service providers globally (Baafi & Xin-Ying, 2020; Arora & Agarwal, 2020). This appears to have ushered the world into the new world of mobile marketing in which SMS plays an integral part. The acceptance of mobile internet and high mobile marketing campaigns has been apparently spurred by continuous reduction in costs of mobile handsets and data subscriptions, as well as the low level of fixed broadband penetration (Kumar & Kumar, 2017).

According to the Mobile Marketing Association (2016), "mobile marketing is a set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through and with any mobile device or network". Kumar and Mittal (2020) add that smartphones now enables information search, social networking, shopping, communication and leisure to be done easily by users, thus, making marketing easy and convenient. SMS advertising has an advantage over other forms of social media advertisement as even people who do not have smartphones but simple phones can be reached (Dodoo & Wu, 2019). Furthermore, to control response rates SMS ads could be fused into strategic advertising campaigns, or new campaigns could be created with SMS as a fundamental mechanism.

Short Message Service (SMS) advertising, through mobile phones, has become the most desired means of target marketing for different market groups from late-teens to middle aged categories. Mobile advertising is used by many businesses as a marketing channel for directly communicating with consumers (Varnali, 2012; Punyatoya & Durgesh, 2011), impacting their awareness, attitudes and buying culture (Ayanwale *et al*., 2005). As stated by Kumar and Mittal (2020), the major form of mobile advertising in some parts of the world is through SMS text messages. In 2013 it was found that practices such as marketing on social media have been accepted all over the world and has been adopted by about 93 percent of the firms as a means of communicating with their costumers (Bennett, 2013). This enormous increase in the number of mobile users and smartphones has created many opportunities for marketers (Kumar & Mittal, 2020).

It is, therefore, necessary to investigate the effectiveness of SMS ads in a fast-growing economy like Ghana considering the huge funds allocated to the advertising industry worldwide. In light of this, the present study seeks to investigate and understand customer behaviour, which determines their attitudes and behaviour in relation to SMS advertising and purchase intentions in Ghana.

LITERATURE REVIEW

Mobile Phone Usage in Africa and Ghana

Africa has the fastest growing mobile phone market globally (Bentil, 2012). The emergence of mobile telephony in Africa has been essential in promoting telecommunication services, which has helped in the increase in the number of people with access to telecommunication. Factors such as demand, sector reforms, licensing and emergence of investors have enabled mobile phone usage to rise (Baafi & Xin-Ying, 2020). The advancement of mobile phones has expanded opportunities available for reaching customers, which began with SMS and voice calls. Effective mobile advertising is based on a firm's knowledge of their target audience, creating content with specific mobile platforms in mind and strategically utilising SMS/MMS marketing and mobile apps (Marketo, 2016).

Mobile phones and their ever-growing popularity are one of the most important opportunities for marketers to promote their product and services (Komulainen, Mainela, & Tähtinen, 2016; Okazaki & Taylor, 2008). As of the third quarter of 2019, Ghana had 16.7 million unique mobile subscribers, 15.1 million smart phone devices and 10.7 million mobile internet users (GSMA 2020). According to Statista (2016), mobile subscribers in Ghana have increased rapidly from 1.7 million in 2004 to 36.75 million in 2017 to 40.93 million in 2018. Therefore, in order to get the attention of prospective customers, one of the media used by telecom operators is SMS advertising.

Majority of the users of mobile phones and SMS are young people, but, the factors that motivate them to adopt these devices as a means of advertisement and to purchase products have not yet been fully known (Ofosu *et al.*, 2013). The Ghanaian media has greatly benefitted from mobile content services. Through unique short codes, television and radio stations, in particular are able to engage their viewers in their programmes. These unique short codes are usually given out during live programmes to give viewers the chance to interact and contribute. . Through this means, television and radio programmes have become more interactive and educative (Bentil, 2012).

The Evolution of Advertising

The most effective means of marketing products or services is through advertisement. Advertisement is a way of communicating in order to persuade an audience to patronise goods,

ideas or services (Ofosu-Boateng & Dwamena-Agyei 2020). Advertising has grown over time, thereby becoming sophisticated and assuming wider dimensions. Formerly, to advertise simply meant to give information on businesses, manufacturers, products and services. Today, advertisement is not only limited to giving information but also the ability to persuade an audience to take action. To effectively persuade an audience, adverts impact the thoughts, feelings, and behaviours of the target audience.

Skorupa and Duboviciene (2015) state that advertisement in present times has become popular and important owing to the competitive nature of the business world. Internet advertising and online branding as well as SMS advertising are no longer a secondary mode of advertising and have a significant contribution to total advertising effectiveness (Valaei et al., 2016). The availability of goods and services is made known to prospective consumers through advertisement by goods and service providers such as industries, businesses, and corporate organisations. Advertisements abound in mass media, making information about goods and services reach a wider range of people, thereby promoting businesses (Moriarty, Mitchell & Wells, 2009) globally.

In the business domain, manufacturers are able to introduce enhanced or new goods and services to prospective buyers or users. Advertisements are also reminders to existing clients. Similarly, adverts affect the buying decisions of the people; for instance, an advert could inform people that a specific product is the best among other similar products (Clow & Baack, 2012).
Marketers advertise with the sole aim of getting access to potential consumers in the bid to influence their purchasing decision in relation to their goods and services (Armelini *et.al*., 2019)

In the view of Katke (2007), advertising has a leading impact on viewers' mind than other communication mix elements. Advertising has the ability to influence consumers' purchasing decisions in that it is able to grab their attention (Olbrich *et al*.,2019). Pieters *et al. (*2002) further argue that while attention increases towards a product, consumers will have a certain perception of the product, which is built upon beliefs about that particular product. If the beliefs and perceptions are positive, consumers are likely to form positive attitudes towards a product, solicit more information and adopt the product. This attitude formation process towards brands has been noted to have a significant impact on their intentions of purchase (Kawa *et al.*, 2013). This is also confirmed in a study carried out by Farooq and Latif (2011), which indicates that advertising can impact individual attitudes, and consequently, the lifestyle as well as culture of a country. Again,

this confirms earlier reports that informative advertisements about products can influence potential customers and actual users (Ackerberg, 2001).

Theoretical Background

Fishbien and Ajzen (1975) propounded a concept known as "Theory of Reasoned Action" to help in understanding and predicting human social behaviour. It is the most widely utilised model in relation to defining people's attitudes and behaviour (Page & Luding, 2003; Choo *et al.*, 2004). It suggests that behaviours are predicted by the intent behind them, and these intents are also in turn fuelled by attitudes and subjective norms. Attitudes can be defined as the positive and negative assessment of why someone puts up a particular behaviour, while subjective norms indicate the societal pressure a person is given to do something or behave in a certain way. Again, Korgaonkar *et al.* (2001) posit that attitudes and subjective norms are determined by behavioural and normative beliefs, respectively, and these are generally the expressed attributes of a specific object. Several researches have demonstrated that attitude highly impacts intentions than subjective norms in relation to putting up a behaviour (Farley *et al.*, 1981; Oliver & Bearden, 1985). Therefore, it is concluded that behavioural beliefs (for example, Informativeness, Entertainment, Incentives and Credibility) usually are regarded as determinants of attitudes. Hence, this study basically discusses the connections between beliefs, attitudes and intentions with regard to a person's behaviour.

The study also employs the Media 'Uses and Gratification (U & G)' theory propounded by Katz, Blumler and Gurevitch's (1973) to ascertain the connection between the intents of utilising a specific media (mobile SMS) and the attitudes of consumers towards advertisement. The U & G theory is an approach that is focused on the user and considers the rationale and method behind the utilization of a particular kind of media by an individual to meet his/her different needs (Severin &Tankard, 1997). The U & G approach also assumes that the user of a communication medium has other sources of information that might compete to satisfy the gratification his/her needs. Which means that users of SMS, for instance, make motivated choices. Katz, Gurevitch and Haas (1973) opine that users of communication media make a motivated choice to seek media that possesses communicative features that satisfy their intellectual and emotional needs, as well as personal and social integrative needs, and entertainment needs (Hamilton, 1998; Katz, Blumler & Gurevitch, 1974; Severin & Tankard, 1997). The rationale for this motivated choice (SMS utilisation) by users can be comprehended by assessing the motivating factors behind it (Joines *et*

al., 2003). Motivation is the reasons behind a person's actions to satisfy his/her needs and desires (Papacharissi & Rubin, 2000). Hence, for instance, when the motives behind the utilisation of social media sites are understood, marketers can design and create appropriate, relevant and effective social media adverts.

Motivation is classified as extrinsic and intrinsic. "Extrinsic motivation" refers to the external drive to exhibit a particular behaviour in order to achieve a specific goal. An example of an extrinsic motivation is the utilisation of digital media to get information (Chen, 2012; Joinson, 2008; Kim *et al.*, 2011; Valenzuela, 2009). Intrinsic motivation, on the other hand, is the pleasure or feeling of satisfaction a consumer gets during the performance of a task or exhibiting a behaviour (Vallerand, 1997). The commonest intrinsic motivation for utilising mobile digital media is 'Social Escapism' (McQuail *et al.*, 2012).

As regards motivation for the adoption of an advertising medium, Almossawi (2014) discovered that entertainment value, informativeness, credibility, personalisation and irritation level are the SMS features that drive young people to patronise SMS advertisements.

Informativeness: Informativeness is "the ability of advertising to inform consumers of product alternatives so that purchases yielding the greatest possible satisfaction can be made" (Ducoffe, 1996). Similarly, it is the capacity to inform customers about product and service alternatives so that purchases lead to the highest imaginable satisfaction (James *et al*., 2016). Rajesh et al. (2019) established that infotainment and credibility positively impact consumers' attitudes toward SMS ads. Researchers such as Tyufekchieva and Reichhart (2018) opined that giving informative content to readers can generate positive attitudes towards SMS ads and in turn increase the perceived purposive value of the messages. Informativeness is a valuable means of motivating users especially when advertisements offer different kinds of useful resources and information (Fern *et al.*, 2018). To achieve this, information must be timely and be of relevance to the user (Aydin & Karamehmet, 2017).

Lee, Panny and Karjaletto (2008) also confirmed the above assertion in their attempt to investigate the factors that determine consumers' inclination to accept mobile-based advertisements. Thus, providing relevant information to users, giving them rewards and incentives, as well as their ability to control messages are factors that are capable of increasing the appeal of mobile advertising.

Similarly, various studies on attitudes of mobile subscribers toward mobile advertising found that the characteristics of an advertising message, including personalisation, valuable information (Mijani, 2016; Dixie *et al*., 2016; Arora & Agarwal, 2020), permission and the validity of the message (Mijani, 2016), entertainment value (Waldt *et al*., 2009) and credibility of SMS (Waldt *et al.*, 2009) influence the attitudes of mobile users.

Tsang, Ho and Liang (2004), Bauer *et al*. (2005) and Choi, Hwang and McMillan (2008) have established that informativeness positively influences attitude in relation to mobile advertisements. In view of the above, we hypothesise here that:

H1: Informative SMS advertisement has a positive influence on purchasing intentions.

Entertainment: Another means of generating positive attitudes towards mobile ads is adding entertainment values to the message such as attractive images or claims, ring tones or digital mobile phone accessories (Tyufekchieva & Reichhart, 2018). The key factor in the development of perceived advert value, emotional attachment (Kolsaker & Drakatos, 2009) and attitude was the entertainment factor (Almossawi, 2014). Therefore, mobile adverts should be fun and enjoyable so as to help them to overcome the common negative attitudes users have toward this medium.

Furthermore, McQuail (1983) defines entertainment as "the ability to fulfill an audience's need for escapism, diversion, aesthetic enjoyment, or emotional enjoyment". A major criterion utilised in creating advertisements is entertainment as it is employed as a tool to grab customers' attention and increase the effectiveness of adverts (Haider & Shakib, 2018). It can also be described as the feeling of liking, enjoying and finding pleasure in watching, reading or listening to an advert (Zhou & Bou, 2002). In mobile advertising, entertainment is the feeling of pleasure derived from SMS ads (Unal, Erics & Keser, 2011). Scharl *et al*. (2005) conclude that consumers tend to buy or patronise advertised products if marketers create amusing and entertaining messages that are enlightening and useful. They suggest that marketers should focus on giving needful, timely, and valuable content to their target audience.

Again, Tsang *et al*. (2004) opine that entertaining advertising messages also impact users' attitudes in relation to mobile advertising. The entertainment value in mobile advertising is seen as the major element that affect consumers' attitudes towards adverts (Unal *et al.*, 2011). Thus, the use of information and entertainment to arouse user's interests generates favourable attitudes towards advertised products or services (Okazaki, 2008). Entertainment is an essential element

aids ad messages to get great reception from users and boost favourable attitudes towards the ad. Therefore, the sense of enjoyment derived from an advert helps to develop positive attitudes of consumers towards SMS ads. Based on the arguments raised above, we hypothesise that:

H2: Entertaining SMS advertisement will have a positive influence on purchasing intentions.

Credibility: Credibility plays an essential role in mobile advertisement. James *et al.* (2016) posit that the higher the perceived consumer credibility, the more the value attached to the advertisement increases. Also, credibility is consumers' perception of the genuineness, veracity, and reliability of an advertisement (Chaudhry *et al*., 2016). Similarly, Huq *et al.* (2015) also define advertising credibility as consumers' perception of the honesty and trustworthiness of advertising generally.

Credibility can be identified with consumers' dependence on the honesty and the authenticity of companies' advertisement, according to Chowdhury *et al.* (2010). The credibility of an information is dependent on the trust attached to the medium of delivery (Moore & Rodgers, 2005). This means that the medium employed to deliver information must be trusted to ensure that the message is believed by recipients. If consumers do not trust the medium, any information given through it will not gain consumers' attention. The credibility of an advertisement can be affected by a company's credibility and that of the medium of dissemination of the message (Chowdhury *et al.*, 2006). In reality, credibility can be attained by ensuring trustworthiness and honesty in ads and promising solely what could actually be delivered (Aydin & Karamehmet, 2017).

Several studies have discovered that credibility positively impact attitudes towards mobile advertising (Zabadi *et al*., 2012; Tsang *et al.*, 2004; Haghirian & Madlberger, 2005). Other research has also shown that the credibility of adverts has a notable impact on consumers' attitudes toward advertising and behavioural intentions (Tsang, Ho & Liang, 2004; Zhang & Mao, 2008). Rajesh *et al*. (2019) conclude that ensuring trustworthiness and creating credibility in advertisements guarantee an enhancement of attitudes towards mobile adverts**.** Based on the above assertions, we hypothesise that:

H3: Credibility of SMS advertisement has a positive influence on purchasing intentions.

Irritability: Irritability in advertising could be defined as advertisements that produces anger, sadness and brief intolerance (Huq *et al.*, 2015). It can also be described as consumers' negative

attitudes or reactions to mobile advertising (Altuna & Konuk, 2009). Excessive use of SMS advertising can put off consumers, leading to their resentment, and hence, deletion of messages without reading them (Chaudhry et *al.*, 2016). Ecrcis and Ercan (2011) regard irritation as a key cause of unhappiness and annoyance with advertisements, which makes them censure certain ads. Consumers tend to react negatively towards products and services once they find their advertisements irritating (Wong & Tang, 2008). Another possible means of creating annoyance among consumers is regularly sending unwelcomed messages, which are termed as spam. Spam invades the receiver's privacy and inhibits consumer acceptance (James *et al.*, 2016). However, the perceived irritability of mobile ads affects customers' attitudes toward them (Tsang *et al.*, 2004).

There is the need for marketers to adopt a tactical approach in using SMS ads to capture prospective customers since it is believed that consumers sometimes exhibit negative attitudes towards mobile ads, particularly the youth. It is irritating, frustrating, disturbing and annoying when marketers send ads to prospective customers without seeking permission or informing them first. Unsolicited short messaging services (SMS) means sending information with the intention of creating an awareness and stimulating consumers' interests in order to give a tangible or intangible idea or feeling of a product or service to mobile phone users (Chag &Morimoto, 2000).

Choi, Hwang and McMillan, (2008) found that three characteristics of messages, entertainment, information and message validity, had a positive impact on consumers' acceptance of mobile ads, while annoyance had a negative impact on their attitude towards them. Again, a comparatively higher degree of exposure to advertising for consumers can result in negative attitude towards advertising (Choi *et al.*, 2008). In line with the discussions above, we hypothesise that:

H4: Irritability of SMS advertisement has a negative influence on purchasing intentions.

Methods

Study Population

The study population included all residents and pedestrians within the Accra Metropolitan Area, who are 18 years or above estimated to be 4.6 million (GSS, 2016). The age criterion was used in

order to involve only people who are characterised or defined constitutionally as adults. Moreover, the inclusion of minors would ethically require seeking the consent of a guardian before their participation in the study. Due to the limitation of time, the study could not pursue this approach.

Sample Size for Study

The population for the study included residents, commuters, and pedestrians within the Central Business Districts in the Accra Metropolitan Area, Ghana. This presupposed that the actual study population could not be estimated as the number of commuters and pedestrians cannot be predicted. The sample size was, therefore, determined using the Yamane (1967) sample size estimation formula for known population:

$$n = \frac{N}{1 + N(e^2)}$$

n= corrected sample size

N = population size and

e = Margin of error (MoE), e = 0.05 dependent on the research condition.

Using the formula, an estimated sample of 400 is calculated. Therefore, 400 sample units were used and proportionately divided among males and females.

Sampling procedure

The pilot-test of the instruments was conducted using 20 randomly selected respondents. The results helped to identify anomalies and restructure the questionnaire. The study adopted simple random sampling to select the respondents that matched the selection criteria, which are people who were 18 years and above, owned mobile phones and had subscribed to at least one telecom network in Ghana for minimum of two years.

Analysis

In the data analysis, partial least squares (PLS) were employed (SmartPLS Release: 3.2.7) (Ringle *et al*., 2015). Sample size does not affect PLS, and it is preferred by most researchers for data that

is not normally distributed (Hair *et al*., 2011).Testing was done for the significance of each path utilising PLS method of bootstrap t-values (5000 sub-samples) (Tortosa *et al.*, 2009).

Results

Table 1: Background Information of Respondents

Variable	Frequency	Percent
Gender		
Male	216	54
Female	184	46
Age		
18-25yrs	142	35.5
26-35yrs	166	41.5
36-45yrs	63	15.8
46yrs and above	29	7.3
Education		
SHS or lower	66	16.5
HND/Diploma	90	22.5
First Degree	193	48.3
Postgraduate	51	12.8
Occupation		
Student	143	35.8
Public Sector Employee (Civil/Public Servant)	77	19.3
Private Sector Employee	59	14.8
Self Employed	35	8.8
Retailer/Sales	51	12.8
Others	35	8.8

Total	**400**	**100**

Four hundred responses were obtained out of a target of four hundred customers of telecommunications companies, as a result, non-response bias was not performed (Ledden *et al.*, 2011). Also, exploratory factor analysis with the extraction of just a factor achieved a variance explained of 19.43% (which is lower than 50% variance), showing absence of common method variance bias (Podsakoff *et al.*, 2003). Analysis of the scale items using the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality showed that the data were significantly different from normal distribution, further confirming the suitability of PLS-SEM for data analysis.

Confirmatory Factor Analysis

All five constructs were measured reflectively. To test the measurement model for reflective constructs, researchers need to check for convergent and discriminant validity (Hair *et al.*, 2016). Table 2 presents the item loadings and bootstrap t-values (5000 sub-samples) (Tortosa *et al*., 2009). Furthermore, all the five constructs had Cronbach's alpha, composite reliability and average variance extracted values higher than 0.6, 0.7 and 0.5, respectively as suggested by Hair *et al*. (2016) for convergent validity as is shown in Table 2.

In addition, the square root of the average variance extracted values for each of the five constructs is higher than the inter-construct associations between them as is demonstrated in Table 3 (Fornell & Lacker, 1981; Hair *et al.*, 2016). Additionally, the heterotrait-monotrait ratio of correlations showed that all the correlations were within -1 < correlations < 1 ($HTMT_{inference}$) (Henseler *et al*., 2015). This shows that discriminant validity is met.

Table 2: Item Loadings

Construct	Loading	t-values
Entertainment		
I enjoy receiving mobile advertisements	0.887	29.911
Mobile advertisement is enjoyable	0.886	26.107
Information		
Mobile advertisements fulfill my needs of product information and use	0.874	20.793
I get exclusive information via SMS	0.772	11.974
Credibility		
I refer to mobile advertisement to purchase products	0.740	12.116
Mobile advertisement is trustworthy	0.833	21.494
Irritability		
Mobile ad contents are usually annoying	0.773	5.945
I am uncomfortable with receiving ads on my mobile phone	0.832	7.991
Purchasing Decisions		
Mobile advertisement motivates me to buy products	0.771	21.029
I factor mobile advertisements in my buying decisions	0.851	44.405
I usually buy products as a result of SMS advertisement	0.833	31.644

Note: All bootstrap t-values are significant at 0.01 level of significance

Table 3: Summary Convergence and Discriminant Validity (Square root of AVEs in diagonal-bold)

Construct	**Convergence Validity**			**Fornell-Larcker Criterion**					**Heterotrait-Monotrait Ratio (HTMT) inference Criterion**				
	α	**C.R**	**AVE**	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
1. Entertainment	0.728	0.880	0.786	**0.887**									
2. Information	0.736	0.809	0.680	0.117	**0.825**				0.182				
3. Credibility	0.613	0.766	0.621	0.211	0.271	**0.788**			0.386	0.618			
4. Irritability	0.652	0.784	0.645	-0.134	-0.136	-0.169	**0.803**		0.229	0.286	0.395		
5. Purchasing Decisions	0.754	0.859	0.670	0.301	0.326	0.532	-0.203	**0.819**	0.406	0.505	0.967	0.350	

Structural Model Analysis

A structural model was built by examining the relationships between SMS ad characteristics and purchasing decisions. An assessment of the predictive accuracy (R^2) of the structural model indicated a large explanatory power for purchasing decisions (36%) (Hair *et al*., 2016; Cohen, 1988). Also, Q^2 – value of 0.151 was obtained for purchasing decision, a value higher than 0 indicating predictive relevance (Chin, 2010; Hair *et al.*, 2016). Lastly, the effect sizes (f^2) calculated for the exogenous variables indicated that credibility had medium effect size, entertainment and information had small effect sizes, whereas irritability had no effect size on purchasing intentions (Cohen, 1988). The results are depicted in Table 4.

Table 4: Predictive Accuracy (R^2), Predictive Relevance (Q^2) and Effect Sizes (f^2)

Constructs	R^2	Q^2	f^2(Purchasing Decisions)
1. Entertainment	_	_	0.05(Small)
2. Information			0.04(Small)
3. Credibility			0.26(Medium)
4. Irritability			0.01(None)
5. Purchasing Decisions	0.358	0.151	_

Hypothesis Testing

The outcomes of structural model are depicted in Figure 1. All paths are statistically significant, therefore, the study supports all four hypotheses. Specifically, SMS ads that are entertaining, informative and credible have positive influence on purchasing intentions, whereas as those that are perceived to be irritating have negative influence on purchasing intentions. Table 5 summarises conclusions made from the hypotheses.

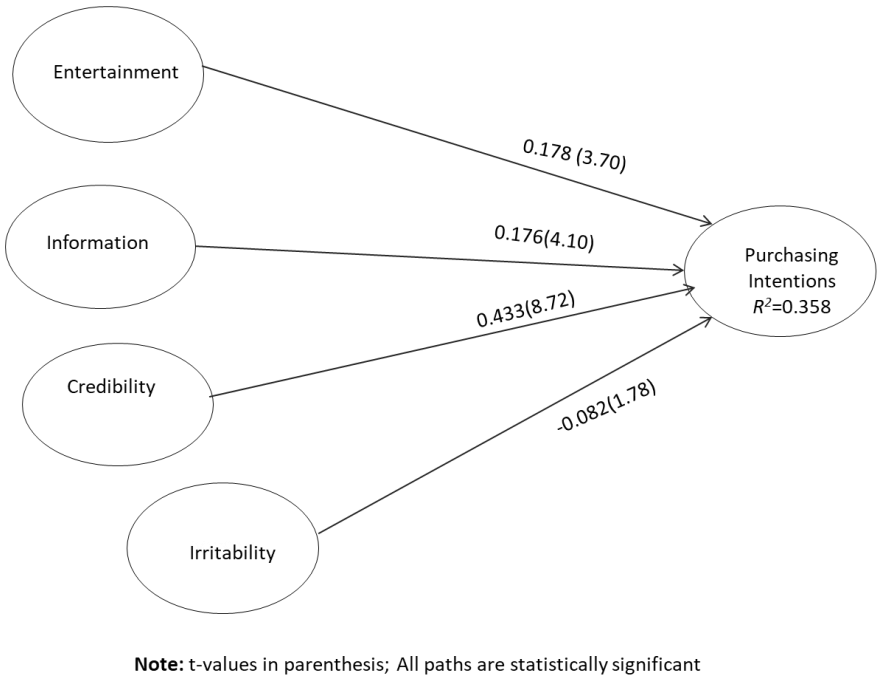

Figure 1: Structural model

Table 5: Structural Path Results

Hypothesis	**Structural path**	**Path coefficient**	**t-value (Bootstrap)**	**Hypothesis results**
H1	Entertainment -> Purchasing Intentions	0.178**	3.684	Supported
H2	Information -> Purchasing Intentions	0.176**	4.172	Supported
H3	Credibility -> Purchasing Intentions	0.433**	8.376	Supported
H4	Irritability -> Purchasing Intentions	-0.082*	1.768	Supported

Note: **significant at p<0.01; *significant at p<0.05 (One-tail test)

Importance-Performance Matrix Analysis (IMPA)

The researcher performed the importance-performance matrix analysis in PLS-SEM on the effects of SMS ads' characteristics on purchasing intentions as is shown in Table 6 and Figure 2.

Table 6: IPA on Purchasing Intentions

SMS Characteristics	Purchasing Intentions	
	Importance	Performance
Entertainment	0.178	59.20%
Information	0.176	64.87%
Credibility	0.433	63.10%
Irritability	-0.082	42.95%

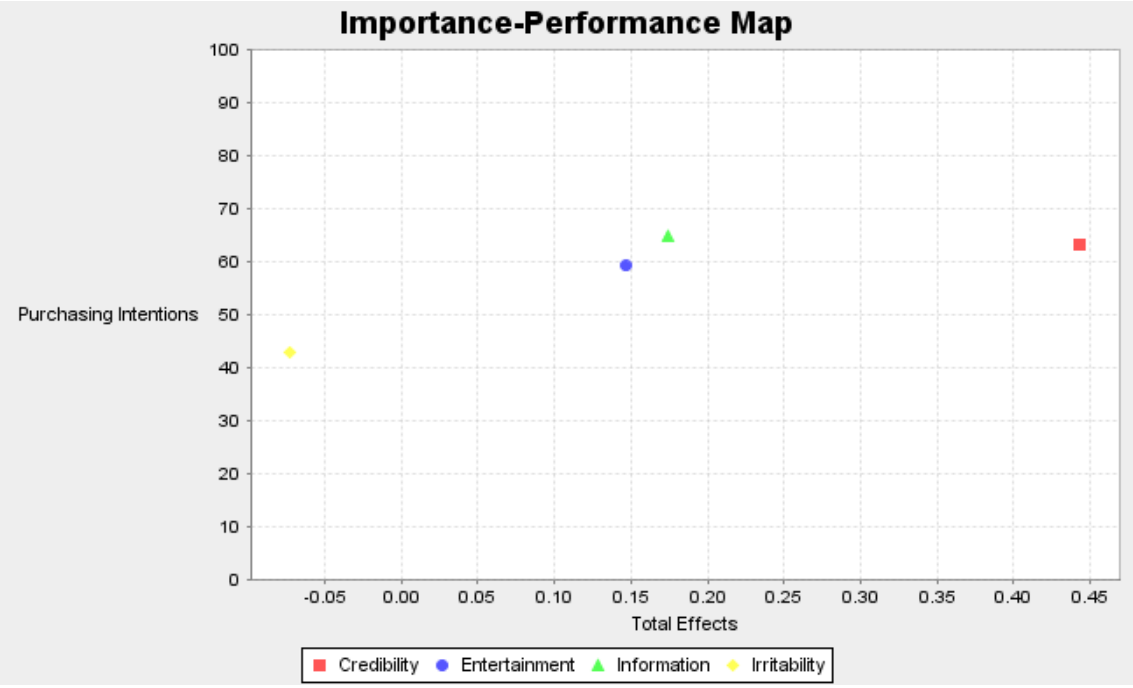

Figure 2: Importance-Performance Map

It is evident from the IMPA analysis that the highest performance is obtained by informative SMS ads. However, the variable with the highest importance is credibility, closely followed by entertainment, information and irritability, respectively. The implication of this is that SMS ads that were considered to be credible obtained optimum positive effects on purchasing intentions.

Discussion of Findings

Data from the study supports the study's hypothesis (H1), which states that Informative SMS advertisement has a positive influence on purchasing intentions. This finding supports earlier findings of Lee *et al.* (2008), which asserts that the provision of relevant information to users has a tendency of increasing the appeal of mobile media for advertisement. It also confirms the significant effect that valuable information (Mijani, 2016; Dixie *et al.*, 2016; Arora & Agarwal, 2020), also referred to in other studies as informativeness (Tsang *et al.*, 2004, Bauer *et al.*, 2005, Choi *et al.*, 2008), and has on attitudes in terms of mobile advertisements.

The data also confirms hypothesis 2, (H2: entertaining SMS advertisement will have a positive effect on purchasing intents). This finding is consistent with that of Scharl *et al.* (2005), Tsang *et al.* (2004), as well as Waldt *et al.* (2009), which notes that customers are likely to purchase products that are advertised with entertaining content; a position that is further amplified by Unal *et al.* (2011) as they indicate that entertainment in mobile advertising is one of the key factors that influence customers' attitudes towards advertisements.

Data from the study likewise support hypothesis three (H3: credibility of SMS advertisement has a positive impact on purchasing intentions). This finding affirms that of some earlier studies (Zabadi *et al.*, 2012; Tsang *et al.*, 2004; Haghirian & Madlberger, 2005; Waldt et al., 2009), which indicates that the greater credibility customers perceive, the more advertising value increases (James *et al.*, 2016). As a medium of communication, the credibility of the medium (Moore & Rodgers, 2005), the sender and content, all come to play (Chowdhury *et al.*, 2006).

The data also confirms hypothesis four (H4: irritability of SMS advertisement has a negative influence on purchasing intentions). This finding also supports that of earlier studies that assessed the perceived irritation of mobile advertising and its effect on customers' attitudes (Tsang *et al.*, 2004; Wong & Tang, 2008; James *et al*., 2016; Choi *et al*., 2008).Finally, the study found that the most significant antecedent of attitude formation towards SMS is informativeness, followed by credibility, then entertainment, with irritability as the least effect, even though its relationship is negative.

Theoretical and Managerial Implications

For managers of brands, particularly virtual brands that have less contact with brand audience, these findings offer some practical potential arguments or issues that are worthy to be taken into consideration. The informativeness of SMS advertisement content was as the most significant antecedent of purchase intention for the product advertised via SMS. This might seem mundane because most advertisers are not likely to post irrelevant information in the advertisement. However, a subtle question that may be overlooked is whether the information actually meets the needs of the audience. The negative effect of irritating messages might be attained if a careful research of the targeted audience is not done before SMS are sent to them. Credibility was the second most significant factor of SMS advertisement that influenced purchase intention. The credibility of an information, in today's world of abundant fake news, is not something that firms can take for granted, credibility has to be built overtime. Where the audience of SMS advertisement has any reason to think that the advertiser or its product has been associated with fake news in the past, it can affect current perception and attitude towards its SMS advert. In other words, the customer might end up disregarding the advert if the advertiser has a history of misleading or giving out wrong information. Therefore, a brand image must not be associated with fake news in this digital age. The third most significant factor of SMS advertisement that influenced purchase intention is entertainment. Even though it is the most important factor to customers probably it draws their attention easily, it does not affect purchase intention as much as informativeness. Just as informativeness, entertainment is also relative to the type of audience that receive SMS adverts. Hence, it is important to study and understand one's audience. Per the ranking of factors, however, we observe that informativeness and credibility can still lead to purchase intention if SMS advertisements are irritating. This is because, an informative content, per an audience needs, has the potential of neutralising the effect of irritability, which is of the least importance to customers, and less than 43% in the execution of purchase intention.

Theoretically, the findings of the study extend the Theory of Reasoned Action by demonstrating the application of perceptual attitudes towards a behaviour, as antecedents of the intention to adopt that behaviour. The study, however, does not examine subjective norms as recommended in the theory. Likewise, the study demonstrates how the User and Gratifications theory (Katz *et al.*, 1973) are applicable by demonstrating how factors that are regarded by

audience as useful to them lead them to develop positive attitudes towards technology. In the same vein, factors that negatively affect their expected user gratification lead them to disregard technology. Finally, the use of Importance-Performance Map analysis to guide managers in developing strategies based on customer insight is significant as it contributes to the use of theory for business decision-making.

Conclusions

In conclusion, the informativeness of SMS advertisement, how entertaining SMS advertisement is, and the credibility of SMS advertisement significantly lead to positive attitudes in relation to purchase intention towards the advertised product or brand, while irritability of SMS advertisement leads to negative attitudes towards purchase intentions. Thus, firms must improve the relevance of SMS content, its credibility and entertainment value in order to improve the purchase intention towards the brand.

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