

# Influence of message frequency and acceptability on attitude towards GSM operators' unsolicited promotional SMS among undergraduates in Lagos, Nigeria

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## Abstract

The Global System for Mobile Telecommunication (GSM) has improved telephony in Nigeria, following the successful deregulation of the country's telecommunication. The popularity of GSM in Nigeria, coupled with its interactivity, high speed and frequency of delivery makes it an avenue for advertising through the Short Message Service (SMS) among network operators. SMS advertising generates subscriber annoyance, irritation and rejection due to their intrusiveness as they are mostly unsolicited. This study examined attitudes of tertiary institutions' undergraduate subscribers in Lagos State, Nigeria to unsolicited promotional SMS of major GSM network operators. The study adopted the cross-sectional survey research design. The population of the study comprised 40,663 undergraduates of selected tertiary institutions in Lagos State. Multi-stage sampling technique was applied to select four universities, one polytechnic and one college of education through stratification and randomisation, while the Saunders, Krejcie and Morgan (1970) formula was applied to select a sample of 1,026 respondents from the institutions. Validated structured questionnaire was used to collect data. Findings revealed that Message acceptability and frequency significantly influenced the attitude towards GSM operators' unsolicited promotional SMS among undergraduates. The study concluded that unsolicited promotional SMS of the GSM operators generated unfavourable attitudes among tertiary institutions' undergraduate subscribers in Lagos State because they were received without permission and in high frequency. The study recommended subscriber permission, reduction in GSM operators' unsolicited promotional SMS.

**Key Words:** Attitude, Global System of Mobile Communications, Short Messaging Service, Undergraduates

## Introduction

The support of 3G mobile networking as one of the enabling technologies of mobile phones and the tremendous improvement in the design of handset have contributed to promotional SMS marketing strategies through mobile phone companies. Marketers regard 3G technologies as a powerful means of delivering promotional messages and this has created an opportunity to move ahead with text-based SMS. Tammanna, Sadia and Nazmun (2015) are of the opinion that the days of Global System for Mobile Telecommunication (GSM) operators' promotional SMS are limited because with the

launch of advanced mobile phones and 4G technology, marketers will get another feature that is more powerful and have more potentials than other media through which users will get high quality images and videos on the screen of their mobile phones, though, 3G has already provided the speed and bandwidth required and the usefulness of this for those who want to utilise this mobile phone technology content, most especially Short Message Service (SMS) (Sheikh, Alam, Nekmahmude & Aktar, 2015).

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Short Message Service (SMS) remains the most popular medium that allows customers to keep abreast of information and it offers instant communication avenue, which the traditional media may not guarantee. It has created an edge over other channels of marketing in which promotional SMS remains one of its arms. The viability of this medium has also distinguished it from other media for promotion of goods and services. Receivers could also forward such promotional message to the other subscribers who are not initial receivers of GSM operators' promotional SMS campaign. Ranjit (2013) establishes that high response rates generated by interactive and inexpensive GSM operators' promotional SMS compared to other traditional sales promotion campaigns, like direct marketing, advertising, public relations campaigns and the like have further encouraged marketers to send GSM operators' SMS promotional campaigns directly to prospective subscribers. This, however, can make marketers pay more attention to GSM operators' promotional SMS that is being regarded as essential marketing tool in sales promotion in marketing and advertising.

Jong-Hyuok, Yonjung, and Wei-Na (2013) observe that youths' perception of the smartphone as a device is that it must be compatible with an individual's lifestyle and the social benefits of using a smartphone predict intention to accept GSM operators' unsolicited promotional SMS among smartphone users. Moreover, this category of subscribers have been known to be potential users of GSM operators promotional SMS and this informed the focus of this study as many studies have been carried out using undergraduates as a population (Heng et al. 2009; Suhaib, Rashida, Muhammad, Mohsin and Salman 2013; Ahsan&Faiza, 2014; Mylona, 2015; Uwamahoro, 2016). Studies have shown that GSM operators' promotional SMS campaigns are particularly successful in young segments of marketing population and they are regarded as the most cumbersome audience to approach through other channels of traditional marketing (Boonlert, 2011; Falah, Saad& Muhammad, 2012; Justine, 2011; Rebecca, Catherine & Terence, 2012; Mylona, 2015).

Therefore, seeking permission before GSM operators' promotional SMS is sent remains essential because subscribers need to have the knowledge of such SMS before receiving. The non-provision of such prior knowledge is a demonstration of the sensitivity of the mobile phone technology (Suher&Ispir, 2011). Anam (2015) is of the opinion that when the credibility

of the message source is ascertained and the GSM operators' promotional SMS is entertaining, informative and without any irritation, getting the attention of the subscribers and creating a favorable attitude may not be difficult. Similarly, Plavini (2011) avers that subscribers' attitude towards GSM operators' promotional SMS has been known to be negative when prior permission is not sought.

In this technological age, subscribers should have control over how they get information on their mobile phones. Receiving GSM operators' unsolicited promotional messages persistently can result in irritation and annoyance, which in turn lead to negative attitudes. These can constrain the subscribers from enjoying maximum benefit of having mobile phones. GSM operators' unsolicited promotional SMS has become worrisome for the quality of GSM services and this need to be addressed in research in order to achieve the ultimate qualities of GSM services (Oduh, 2012).

Previous studies have described attitude towards mobile phone marketing in general, without any specific reference to promotional SMS format. Consequently, pieces of evidence have shown across literature that the ultimate goal of any marketing company is to see GSM operators' promotional SMS leading the subscribers taking decisions. Therefore, with the increasing nature of GSM operators' promotional SMS marketing medium, there is relatively few academic research and empirical facts to back it up, leading to a gap in the literature regarding GSM operators' unsolicited promotional SMS marketing. In the light of the foregoing, this study examines attitudes of undergraduates in selected universities in South-west Nigeria towards GSM operators' unsolicited promotional SMS. The study aims to examine the combined influence/effect of message frequency and acceptability of GSM operators' unsolicited promotional SMS on undergraduates' attitude in selected universities in Lagos State Nigeria.

**H1:** There is significant combined influence of message frequency and acceptability of GSM operators' unsolicited promotional SMS on undergraduates' attitude in selected universities in South-west Nigeria.

### **Literature review**

There are studies on the combined effects of message frequency and acceptability on the attitude. One of such is Mohammed, Sulaiman and Sufyan (2018). The study examined the relationship between message relevance,

information value, message receiving time, and consumers' permission to receive advertising messages as independent variables and consumers' acceptance of mobile advertising and subsequent effect on purchase intention of promoted products or services using mobile advertising. The researchers employed Google Forms to create a web-based survey. Data for the study were collected from prospective respondents located in a major university in Saudi Arabia. They used 500 e-mail messages that were sent to students and staff with the survey link. University students and staff members were represented the targeted population. The researcher received 225 responses out of the 500 messages sent. Structural equation modelling (SEM) was used to analyse the data.

The findings of the study revealed that acceptance of a message is likely to be influenced by the consumers' acceptance of the mobile medium, the relevance of the content and the context of the marketing communication. Messages that are concise, interactive, entertaining and relevant to the target group usually achieve higher levels of success. The study further revealed that evidence of consumer permission and appropriate time of delivering the message in designing content of mobile advertisements, and, in increasing consumers' acceptance of mobile advertisements. Information value and privacy are essential elements that should be considered and integrated into a mobile advertising campaign to better attract the youth. The study focus on consumers' preferences, future research may shed more light on other mobilephone market segments in developing countries like Nigeria.

Also, Yong, Jiayue and Yuxin (2017) explored the impact of two common kinds of online price promotion on consumers' purchasing intention, and to examine the moderating effect of product complementarity in relationship. The study employed quantitative study with Experimental design. The sample size of the study comprised 272 college students that were invited and participated in the study, only 215 valid data were collected. Moderating effect analysis, manipulation test and mediating analysis were conducted. The result of the study found out that interaction between complementary products and price promotion has a significant impact on consumers' purchasing intention, mental account plays a mediating role in the process. Further result revealed that, complementary products, perceived promotional risk has a greater influence on consumer's purchasing intention, and consumers tend to choose 'price deduction over a given purchase amount. The study only discusses

the influence of the boundary condition of product complementarity on consumers' purchase intention. The present study explores the impact of more valuable segmentation variable.

### **Social judgment/ involvement theory**

Social judgment/involvement theory is a theory of persuasion that was propounded in 1960's by Sherif, Sherif and Nebergall explained the microscopic behaviour of how individuals evaluate and change their opinions based on interaction with others. The theory duelled on the fact that individual as a point in a continuum of possible opinions is not adequate because the individual's degree of tolerance is not important in determining his / her response to external stimuli and persuasion. The theory was further established on the premise that the effect of a persuasive message on a particular issue depends on the way that the receiver evaluates the position that the message puts forth (O'Keefe, 1990).

The theory explicates what happens when audience are exposed to the persuasive message. The theory suggests that audience interprets (judges) a message. They judge the main idea of the message to know how much the message agrees or disagrees with him or her by comparing the message with his or her anchor point. Essentially, audience judges how much the message agrees with own self attitude. Social Judgement/ Involvement Theory depicts that audience's involvement in the topic of the persuasive message- that is, how important a topic is to the audience. It is an important factor in the attitude change (Farida, 2013). Social judgement/ involvement theory discusses how two people can react so differently to the very same message. Audience makes judgements about how much a message agrees or disagrees with the sender because there is no accurate or objective way to measure message position. The theory holds that the process of judging or perceiving the position of a message is essential to understanding how persuasion works.

However, Siyavooshi *et al.* (2013) argue that Social Judgement Theory discussed three leeway of audience attitude and also there are ranges of positions that are not offensive. The centres of a range of acceptance or believable attitudes are called the leeway of acceptance. This explains that the acceptance is simply the most successful position plus other positions that the audience finds satisfactory. The second one is the leeway of non-commitments which are the position that disagree moderately with the person own attitudes but are not so discrepant that audience actually

reject them. The third one is the leeway of denunciation which includes the positioning of the message that the audience actively disavowal as wrong.

Fundamentally, there is more to the process of noticing or adjudicating, a message position that determines which leeway that message fall into. The theory advances that there are two different perceptual distortion processes that is known as agreement and acclimatisation. These two occur when a message is very close to the audience's attitude (assimilation) or disagree (is highly discrepant) with the audience (contract) and social judgement/involvement theory make use of the term to reduce a message's persuasiveness. The theory says that the closer the real message(s) is to the audience's own attitude, the more assimilation will occur.

Social Judgement Theory predicts that when a message actually falls in the leeway of acceptance, near the audience's own attitude, it will be assimilated, or perceived by the listener as being nearer to his her own attitude than it really is. After the audience has judged the message's position, that message is nearer to their own attitude. Audience are varying in the level to which they are involved in a topic. Some audiences are highly involved in the topic. The topic is very important to them and it may affect them permanently. The theory ignores message content and the theory does not take into account the important message variable. It also limits the effects of assimilation and contract to message in which the position in communication is easily affected by alternative interpretation. The high involvement participants had more extraneous attitude than the low- involvement participants which could mean that differences between the groups were due to extremity of attitudes rather than involvement levels. Social judgement/ involvement theory realise that audience vary in involvement and make specific predictions about involvement and persuasion. Essentially, Fatim and Stuart (2018) aver that audience who are less involved in a topic will have a wider latitude to acceptance and narrower latitude of non-commitment than those who are highly involved.

The relevance of this theory is that undergraduate subscribers of GSM networks receive persuasive messages through unsolicited promotional SMS. Essentially, each subscriber judges how much a message agrees with his/her attitude. The theory depicts that a subscriber's involvement in the content of the persuasive message - that is, how important a promotional SMS is to him/her - determines attitude. Mobile phone subscribers can react so differently to the

very same message. Subscribers make judgements about how much a message agrees or disagree with the operators because there is no accurate or objective way to measure message position. The theory holds that the process of judging or perceiving the position of a message is essential to undergraduate subscribers to understanding how persuasion works.

### **Method of Study**

Cross-sectional survey was considered for this quantitative research with a structured close-ended questionnaire as the instrument of data collection. This is considered suitable for a research design that is concerned with the studying a proportion of a population of interest to a researcher, with a view of arriving at a generalisation on how the population reacts to the phenomenon under study. This method is appropriate for this study because the research aims at collecting data and then presenting the situation in relations to how Attitude of undergraduates affected GSM operators' unsolicited promotional SMS. The subscribers' reaction is particularly towards GSM Networks' unsolicited promotion SMS in selected universities in Lagos State as promoters of SMS. The sample size for this study comprised 1,063 undergraduate subscribers in selected tertiary institutions in Lagos State. The study adopted multi-stage sampling technique for selecting the respondents. The technique involved sample selection using series of steps or a combination of more than one sampling procedure. The first stage of the sampling process is the adoption of stratified sampling technique which involves grouping universities according to their levels and their location into four strata. . In the second stage, simple random sampling technique was used through the fishbowl method to select the institution from each stratum. . This is important in order to give every institution equal chance of being selected. In addition, more universities were selected based on the population proportionate to sample (PPS) because there are strata that are more populated than others. Data were collected individually directly through face-to- face from the respondents on the field of study. Basically, permission was sought from lecturers toward the end of lecture hours in the selected universities. Data gathering was carried out by the researcher and the research assistance through face-to-face method of data collection within the official hours of school daily activities to give the researcher and assistants' easy access to the undergraduate subscribers. The researcher employed four trained research assistants in the research exercise. Copies of the questionnaire were distributed to the

respondents individually at their respective classrooms through simple random sampling and retrieved immediately after completion to ensure high rate of return. In order to eliminate Hawthorne effect in the study, which is a tendency for the respondents to modify behaviour or responses and alter their opinions because of their awareness of being observed or investigated; copies of the questionnaire were administered and retrieved immediately after completion. The statistical data analysis adopted for this study included multi linerRegression analysis. The Statistical Products and Service Solutions (SPSS), version 21 was used for the analysis.

**Data Presentation & Analysis**

This includes the data analysis, interpretation and discussion of findings of the study. For emphasis,

the thesis of the study is an examination of the attitude of undergraduates in selected universities in South-west Nigeria towards GSM operators’ unsolicited promotional SMS. A total of one thousand and sixty three (1,063) copies of the questionnaire were administered and 96.5 percent return rate was recorded with retrieval and validation of one thousand and twenty six (1026) copies of the questionnaire. The data was analysed through Regression Analysis.

**H<sub>1</sub>:** There is significant combined influence of message frequency and acceptability of GSM operators’ unsolicited promotional SMS on undergraduates’ attitude in selected universities in South-west Nigeria.

**Table 1. ANOVA and model summary testing significant influence of message acceptability and frequency on the attitudes of undergraduates**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13805.955	2	6902.977	279.214	<b>0.000<sup>b</sup></b>
	Residual	25291.484	1023	24.723		
	Total	39097.439	1025			

R= 0.594

R Square = 0.353

Adjusted R Square = 0.352

**Table 2. Showing the Influence of Message Acceptability and Frequency on the Attitudes of Undergraduates**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	8.914	0.663		13.446	0.000
<b>Message Acceptability</b>	0.625	0.061	0.304	10.278	<b>0.000</b>
<b>Message Frequency</b>	0.782	0.062	0.375	12.666	<b>0.000</b>

a. Dependent Variable: Attitudes

Table shows the ANOVA and model summary, and regression analysis in relation to the test of significant influence of message acceptability and frequency on the attitudes of undergraduates. Results indicate that message acceptability and frequency, jointly significantly influence the attitudes of undergraduates ( $F_{(2, 1023)} = 279.214, p < 0.05$ ). From the relative perspective, message acceptability ( $B = 0.625, t = 10.278, p < 0.05$ ) and message frequency ( $B = 0.782, t = 12.666, p < 0.05$ ) significantly influence undergraduates’ attitudes. This suggests that message acceptability and frequency have the

propensity to create attitudinal dispositions towards GSM operators’ unsolicited promotional SMS among undergraduates. Furthermore, the model could explain 35.2 percent ( $Adj. R^2 = 0.352$ ) variation in undergraduates attitudes toward GSM operators’ unsolicited promotional SMS. Consequently, the alternate hypothesis which states that there is a significant combined influence of message frequency and acceptability of GSM operators’ unsolicited promotional SMS on undergraduates’ attitude in selected universities in Lagos State Nigeria was accepted.

## Discussion

The study hypothesised that there was a significant combined influence/effect of message frequency and the acceptability of GSM operators' unsolicited promotional SMS on undergraduates' attitude in selected universities in South-west, Nigeria. Results regarding the test of hypothesis four indicate that message acceptability and frequency, jointly significantly influenced the attitudes of undergraduates. From the relative perspective, message acceptability, message frequency significantly influences undergraduates' attitudes. This suggests that message acceptability and frequency have the propensity to create attitudinal dispositions towards GSM operators' unsolicited promotional SMS among undergraduates. Furthermore, there was a variation in the undergraduates' attitudes towards GSM operators' unsolicited promotional SMS.

Previous study such as that of Mohammed, Sulaiman and Sufyan (2018) revealed that acceptance of a message is likely to be influenced by the acceptance of the mobile medium, relevance of the content and the context of the marketing communication. Messages that are concise, interactive, entertaining and relevant to the target group usually achieve higher levels of success. The study further reveals that evidence of consumer permission and appropriate time of delivering the message in designing context of the GSM promotional SMS, and, in increasing consumers' acceptance of marketers. Information value and privacy are essential elements that should be considered and integrated into GSM promotional SMS campaign to better attract the youth.

## Conclusion

The frequency with which these promotional SMSs were sent to the undergraduate subscribers and timing at which they were sent made subscribers annoyed, irritated and frustrated about it. Adopting this kind of marketing strategies, the telecom operators' are trying to promote their new products, bundle offers, services etc., but all these should be done in a regimented way with prior permission of the subscribers, monitoring the frequency, timing and permission. The promotional SMS sent to the mobile phones of the subscribers could turn out to be failed campaign for the GSM companies rather than gaining them brand awareness, loyalty and share in the market.

Therefore, the study recommended that GSM network operators should reduce the frequency at which they send unsolicited messages. The practice of exposing subscribers to numerous unsolicited promotional SMS leads to marketing

clutter as subscribers become confused about which of the messages to act on. This confusion often makes them delete the messages, thereby making the communication process ineffective and wasteful. However, further study should focus on the issue of attitudes of subscribers to GSM operators' through SMS could be of interest to future researchers. This is in view of a surprising finding of this study that indicated that subscribers did not find responding to unsolicited SMS exciting. The study contributed to the study through which the model can serve as a guide for further research in the fields of marketing/advertising and telecommunications in Nigeria and lead to theory building on the subject matter. The study has suggested regulatory policy direction to the Nigerian Communications Commission (NCC) as regards the processing, delivery and charging of subscribers for unsolicited promotional SMS.

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