A Research on Subscribers Attitude towards Unsolicited Text Messages (UTM) Among Nigerian Telecommunication Firms

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Abstract: *As telecom firms turn to unsolicited text messages(UTM) to capture new markets and increase profits, the emphasis on UTM means more opportunities for telecom firms to disseminate information at the most reduced cost and to target consumers on one-to-one basis. This paper investigates the consumers' attitude towards unsolicited text messages (SMS Spamming). The research is based on a wide and broad literature review of the latest trends in the Nigeria telecom industry. The study evaluates the effect of three components of attitude (cognitive, affective and conative) on the consumers' preferences and loyalty to telephone services. To achieve the spelt objectives, the study utilizes survey design; and data was collected though a self-administered questionnaire from a number of 302 respondents who were subscribers of four major telecom operators (MTN, GLO, AIRTEL and ETISALAT) in Port Harcourt Metropolis, Rivers State Nigeria. Statistical technique software SPSS was employed to aid the data analysis. Having analyzed the data, the study found out that unsolicited text messages (UTM) impact on subscribers' cognitive attitude for telecom services among telecom firms in Nigeria. It was also discovered that UTM have affective action (negative effect) on consumers' preference for telephone services. The study recommends that mobile telecommunication firms should be cautious about the information content of their advertising message. This is aimed at producing advertising message that contains sufficient, pleasant and valuable information needed to positively engage the cognition of the consumer. The study in addition to that also advised that telecom firms should reexamine the usefulness of UTM as a stand-alone mode because of the observed inherent limitations with regards to emotional appeal and shortage in information capacity, and they should possibly switch to a more effective mobile application.*
Keywords: Unsolicited Text Messages (UTM), Consumers` Preferences, Cognitive Attitude, mobile application

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I. Introduction

For over a century, there has been a drastic growth in the wireless communication industry, as there is a clear shift from the fixed telephone system to the more flexible but robust wireless mobile communication. An announcement made by the International Telecommunications Union (ITU) opined that the number of active cell phones would reach 7 billion by 2014 (Bamba & Barnes, 2007). Nigeria, a developing country, has witnessed a much more agile development in the mobile industry. By 2012, it had over 110 million subscribers, and by 2016 it had more than 155 subscribers and was ranked as the eight country with the highest number of mobile telephony subscribers (Central Intelligence Agency, 2014)

Nigeria joined the league of mobile phone users in 2001 following the introduction of the Global System of Mobile Communication (GSM) locally and ever since then ownership and subscription of GSM has steadily been on the rise. Taiwo (2010)reported 59 million Nigerian subscribers by 2009; 100 million by June, 2012 (Okereocha, 2012 as cited in Ossai-Ugbah, 2012); 117,412,363 million active GSM lines as at June 2013 (Nigerian Communication Commission, 2013); and 187,947,397 connected mobile phones as at January 2015 (Nigerian Communication Commission, 2015). The spread has been so rapid that Team (2013) projected 7.3 billion subscriptions more than the world population in 2014. Ownership of these phones in Nigeria thus has become pre-eminent and predominant communication factor (Elegbeleye, 2005).

The increasing rate of mobile phone usage has presented new delivery platform to both marketers and advertisers. As the popularity of mobile devices increases, Short Messaging Service (SMS) provides marketers the invaluable platform to successfully access potential customers day-to-day, on a one-to-onebasis (Suher&Ispir, 2009; Tsang, 2004). SMS text-messaging first emerged in Europe in 1992(Nweze, 2013), but devolved to Nigeria in 2001 with launch of GSM services by MTN and Econet networks launched (Adediran, 2003; Pyramid Research, 2010).

The growth of GSM in Nigeria has continued to maintain a developed trend. The number of subscribers, from 2007, just within a 7 year span, more than tripled (David, 2006). Corresponding to the increase in mobile users in the country is increment in mobile users' activities which include, but not limited to,

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sending and receiving messages, making calls, sending and receiving emails, accessing the internet, and download applications. Because of its robustness, flexibility, and affordability, mobile communication in the country has attracted a whole lot of benefits. However, the country has had her share of setbacks associated with mobile telecommunication. One of these is sending unsolicited short messages (SMS) in bulk quantity to many mobile users, also known as SMS spamming.

There are varying definitions of unsolicited text messages (UTM), with no one definition generally acceptable. As a result, definitions applicable in America differ from that of the Europe and Africa. According to Brackett and Carr(2011),spamming is an unsolicited electronic message which includes, but is not limited to emails, short messaging service (SMS), Voice over IP (VoIP), instant messages from chats. Usually, spam is sent in bulk for commercial or other purposes, and indiscriminately. Also, the messages sent are often identical. It must be noted however that UTM has become a gigantic problem to almost all sectors of the economy, causing loss of revenue to internet service providers (ISP), and users of these facilities generally. Due to its anonymous nature, spammers are often protected from being held responsible for their actions, as it is always difficult to identify those (Rao &Railey, 2012).

The benefits of an interconnected world have been enormous since Telecom firms gain access to sensitive information which is at the risk of being misused or abused. It's been more than 15 years since Nigeria joined the global super highway of telecommunication, following the roll-out of MTN services 2001. Since then, a lot of progress has been made in the area of infrastructure, network coverage and general telecommunications services. Nigeria has also been rated as one of the most important mobile and internet market in the world with a soaring mobile subscription that is put at about 100 million and internet penetration of 94 million according to Nigerian Communications Commission (NCC) third quarter report of 2016.But despite this advancement, there is still a lot to be desired about the quality of services delivered by the telecom service providers in the country compared with more advanced telecom markets. Many subscribers are disheartened with the service they get from the telecom companies. They argued that poor service delivery, unsolicited messages, slow internet service and other issues remain a challenge confronting the sector

Telecommunication firms in Nigeria are known to disregard consumer's privacy by flooding them with unwanted promotional messages and other unsolicited messages from third party services. In a bid to curb the annoying numbers of unsolicited messages that Nigerian subscribers have to deal with, the Nigeria Communications Commission (NCC) implemented the "Do Not Disturb policy" that gives subscribers control over the type of third party marketing messages they want to receive from service providers or to completely stop receiving any unsolicited messages entirely.

According to the NCC, about 4 million telecom subscribers have activated the DND code on their lines between February and April 2017. However, activating the DND code did not always solve the problem as some subscribers still receive unsolicited messages from service providers. This caused the NCC to launch a toll-free number "622" where telecom customers can launch complaints directly to the commission. However, some telecom subscribers are taking the fight beyond the NCC by following the initial directive of the commission to sue service providers for sending them unsolicited messages

The innumerable text messages without consumer consent at all times is a violation of his fundamental right to the privacy of his telephone conversations, correspondence and his person and telephone line and telephone message inbox. For so long, telecom firms have deliberately abused the rights of their customers, provided by the Nigerian constitution, despite complaints from customers and actions taken by the NCC to put them on track. Hence, this work intends to evaluate consumers' view of unsolicited test messages (UTM) among four major GSM firms in Nigeria.

The main objective of this study is to examine customers' attitude towards UTM by Nigeria telecommunication firms. However, other specific objectives are to:
i. Determine the subscribers cognitive attitude for telecom services among telecom firms in Nigeria
ii. Assess the affective action (i.e. effect) of UTM on consumers preference for telephone services
iii. Evaluate the conative impact of spam or unsolicited messages on information dissemination to telecom subscribers.

II. Review Of Literature
2.1 Conceptual Framework
The Concept of Short Message Services (SMS)
Short Message Service (SMS) is a type of mobile communication system that utilizes the use of standardized protocols for exchange of text messages between mobile devices (Tiago, Hidalgo & Tiago, 2013). SMS is usually a maximum of 160 characters and is sent wirelessly to another mobile device user. When a user sends a mobile SMS from his device, the message goes to the Short Message Service Centers (SMSC) (Dixit, Gupta,& Ravishankar, 2005)

The SMSC is usually maintained by the mobile network operator, and sends a message of maximum payload of 140 octet, thereby making the SMS maximum number of characters to be 160. Email-based SMS are directed to the SMS-gateway, otherwise known as the SMSG. The SMSG on receiving the email-based SMS, routes it to the SMSC, which then sends it to the receiver device. The SMSC operates either through a store and forward or a forward and forget method. It also utilizes Home Location Registry (HLR) to retrieve information about the receiving devise Message Service Centre (MSC), through which it delivers the message to the recipient.

Texting, otherwise known as Short message service (SMS), has become a popular means of mobile communication. Mobile subscribers send in excess of 200,000 SMS text messages every second (Cloudmark Report, 2014). For example, over 500 million SMS were sent to celebrate the New Year in France (Lahmadi, Delosiere, &Festor, 2011). An increasing bandwidth for communication and a relatively low cost of sending SMS has been one of the major factors for its popularity (Hidalgo, Bringas, &Sánz,2006).According to Portio research, SMS usage was worth 200 billion dollars as at year 2011, and is estimated to surpass $300 billion at the end of 2014 (Tiago, Hidalgo & Tiago, 2013). Another factor that has helped to increase SMS adoption is the relative level of trust and acceptance around the world that sending of SMS via mobile phones engenders. For instance, some financial institutions adopt its use even for payment authorization (GSMA Spam Reporting Service,2011). Many organizations have adopted using SMS for mobile advertising to inform its consumers of products and services appropriately. Unfortunately, spammers have been leveraging on these factors to exploit mobile users.

Unsolicited Text Message (SMS Spam)

Aside from being sent from mobile devices, spam short messages have similar features with spam emails: they are unsolicited for by the receiver, sent for commercial or financial purposes, and are sent indiscriminately in bulk form (Dixit, Gupta, & Ravishankar, 2005). They could also be utilized for malicious purpose (Osho, Ogunleke&. Falaye, 2014). Due to the personal nature of mobile devices, SMS spam messages coming in will always draw the attention of the user, who is forced to open such messages, thereby intruding into such user's privacy. And the fact that some mobile telephone operators charge users for receiving messages only helps to compound the frustration experienced by users.

Generally, spam messages users receive on their mobile devices can be said to emanate from three major sources, viz. mobile network operators and groups that have paid the mobile network operator, groups that do not pay the mobile network operator yet send spam SMS, and user-originated messages that are inconvenient to the receiver (Hidalgo, Bringas, &Sánz,2006).

Types of Unsolicited Text Messages (UTM)
According to (GSMA Spam Reporting Service,2011), depending on the intention of the spammer, UTM and mobile messaging attack can be said to be of three major types: SMS spam, premium rate fraud, and SMS hing.
i.   SMS spam is such that unsolicited messages are indiscriminately sent to mobile subscribers for advertising hoax. In Nigeria, such SMS"s encourage one to forward a message to all of his contacts, in order to get some airtime. For example, *"MTN national protocol is celebrating his birthday today. Send this message to 15 people and get N750 recharge card.sms is free."* Messages similar to this have also become very common on social media sites.
ii.   Premium rate frauds are spam messages that trick mobile network users to call some certain numbers where they could be defrauded, or are made to make expensive subscriptions that are billed from their account. An example of such fraudulent SMS received from an MTN Nigeria line reads: *LACASERA DRINK:congrats! you emerged winner of #300,000 from our 10th annual promotion code NoMTN3).Call MR LARRY ON 08131921656 FOR CLAIMS.*
iii.   SMS hing is the mobile form of phishing where baits are embedded in text messages to extract mobile users" personal information. This personal information is then used for purposes ranging from adverts to fraudulent activities. An example of a SMS hing SMS*: "MASTERCARD ALERT: Your CARD starting with 5110 has been DEACTIVATED. Please contact us at 361-400-xxxx."* A mobile device user that calls the number in the SMS is answered by an automated machine, which then extracts information from the user. Other types include links that directs the user to a website where personal information is requested.

UTM in Nigerian and Other Countries
Cheaper SMS cost and increasing profit on spam messages have led to high rise in spam messages emanating from the United States. A research by (Pew Research centre,2014)reports that 79% of Americans with a mobile phone send and receive SMS on their phones, and 69% of all mobile text senders claim that they receive unsolicited and unwanted messages on their mobile device(Cloudmark, 2014)

A survey conducted on behalf of the Direct Marketing Association (DMA) in 2012 reported that about 9 million spam mobile messages are received every day in the UK (Johnson,2012). This implies that over 3.29 billion spam messages were sent in the year 2012 in the UK alone. The increasing nature of spam in the UK has reduced users" trust in the security of their mobile devices. At least 19.1% of respondents in a survey admitted that SMS is less secure; a phenomenon attributed to the increase in SMS spam (Dakin,2013). In most western countries, mobile subscribers view SMS spam as an intrusion to their privacy, thereby causing them to call the network operators for complaints.

The menace of SMS spam is becoming increasingly prevalent also in east countries, including China, Korea, and Japan. A Chinese mobile user, it was reported, experienced more than 8.3 SMS spam weekly (Ji, Hyoungshick, &.Jun, 2010). Up to 30% of daily SMS received in Asia are spam. With subscribers running over 120 million, spammers have been able to identify that they could reach more mobile targets in Nigeria. The rate at which Nigerian mobile subscribers have been receiving spam messages are on the increase. A consumer satisfaction survey suggests that 94% of mobile users use SMS in Nigeria, and 77% of the respondents claim to have been receiving SMS spam (Dakin,2013). Mobile Subscribers in the country have been receiving barrage of different type of unsolicited SMS ranging from network operators" promotions adverts to unsolicited messages urging subscribers to subscribe to a particular type of service. A recent survey by the security firm suggests that up to 80% of Nigerians are annoyed when they receive SMS spam on their mobile device (Osho, Ogunleke & Falaye, 2014). Many Nigerian telecoms consumers have expressed discontent over the absence, in most of the spam messages, of option to opt out.

The Concept of Consumer Attitudes

Literature depicts attitude as a favourable or unfavourable consistently long-lasting response disposition of a person to a given object or idea such as product, religion, TV program, advertising(ALhrezat, 2013; Kotler, 2004; Aaker, Kumar & Day, 1998). Attitude defines the manner an individual thinks feels and/or acts with respect to some aspects of things around him. The attitude structures show how the consumer perceives the market stimuli (e.g. advertising) and how he reacts to them(Aaker, Kumar & Day, 1998).

Attitude combines three components or processes - cognitive, affective, and conative. Cognitive and affective components are unobservable mind order structures (Shiu,2009) while, conative is behavioural. Beliefs, thinking, understanding, evaluating, deciding are cognitive actions (Firman, 2010). Affective is expressed in feelings, moods, emotions and remembered sensations (Arnould, Price &Zinkhan, 2002; Triandis, 1971). Conation on the other hand refersto the intentions and actual behaviour of the consumer, for example, purchase of a product (Triandis, 1971).Solomon(2004) see attitude toward advertising "as a predisposition to respond in a favourable or unfavourable manner to a particular advertising stimulus during a particular exposure occasion". The predisposition is determined by the extent the ad is able to evoke a mood as well as the degree of arousal it is able to cause in the consumer to purchase a product (Solomon,2004).

Theoretical Framework

Many researchers have developed a number of models based on the theory of hierarchy of effects to measure the impact of media advertising on the attitudes of the consumers. The framework, in a typical modern think-feel-do model, hypothesizes audiences' responses to ad messages to be following ordered stages of first, cognition (thinking), second affective (feeling) and third, conation (doing, i.e. behavioural)(Lavidge& Steiner, 1961). According to Egan (2007) and, Barry and Howard (1990), cognition refers to knowledge, beliefs or thoughts of the consumer about the ad and product (that he becomes aware and gathers knowledge about the product); affective refer s to the feeling and emotion the consumer develops toward the product (that he likes the product and becomes convinced in it) and; conation refers to intension to buy the product or the buying action itself.

AIDA, a later improvement on the first 1989 AID model developed by E. St. Elmo Lewis (Barry &Howard, 1990) is the foremost and prominent attempt hierarchically modelling advertising effect on the consumer. Originally conceptualized to guide the salesperson to successfully move a prospect, in a process, to buy, it has later found acceptance as a framework that can be used to describe the effect of persuasive advertising on the consumer - attracts the attention of a prospect, hold his interest, arouse his desire, and push him to action, i.e. purchase a product. The model has received several supports, extensions and additions in the recent times, e.g. Model Stage and Model Order (Lavidge & Steiner, 1961), DAGMAR(Colley, 1961) and AISDALS Love (Wijaya, 2012) among others.

Lavidge and Steiner (1961) postulate that the effects of persuasive advertising - awareness, knowledge, liking, preference, conviction and, purchase sequentially occur at the cognitive, affective and, conative'stages' of the consumer's attitude. While awareness and knowledge occur at cognition stage, liking andpreference at affective stage and, conviction and purchase occur at conative stage**.** The consumer firstly pays attention to the SMS ad, and becomes aware of the ad and product. At Interest stage, the consumer becomes interested in that ad

and product and moves to search for more information about them. Consumers see many adverts each day but will only remember those that interest them. The consumer has been convinced and develops emotional feeling/passion towards the brand or product from the additional information he/she has gathered about the product brand or information regarding the ad message. At final stage act ion, he/she takes an action position on the product: buy/not buy a brand whenever he wants to (intention) or, purchase the product or not purchase the product (patronage).

Attention, Interest, Desire and Action can therefore, be rightly assumed outcomes of audience cognitive, affective and conative evaluation of some value promises of SMS advertisements. These values, though studied severally as factors, include entertainment, information, irritation and influence of appeal incentive, product involvement, interactivity and, consumers' general attitude towards SMS advertising.

Empirical Review

Attitude of consumers towards mobile advertising and, SMS advertising have widely studied. While many have concentrated on establishing relationships between attitude and intention and, behaviour, a greater number have busied at examining the factors that influence the attitudes. Curiously, no researched literature pivotal to the subject matter of this study could be traced. In effect, the study recourse to findings from studies on general and mobile advertising that offer ideas related to the study objectives. However, the commonness of views expressed in those peripheral works appears to suggest that consumer intention and, purchase of ad product are measures of ad effect on consumers' attitudes.

Dickinger, Haghirian, Murphy andScarl (2004) show that to draw the attention of the consumer to the ad and the ad product, buythe product and, possibly forward the ad to colleagues (post purchase behaviour) are key effects and, thus measures the success of such ads. They argue that what is most important is that the ad gets the attention ofthe consumer, leading to his purchase of the product.

Chowdhury, Parvin,Weitenberner, & Becker(2006) studied the attitude of Bangladesh consumers toward mobile advertising and found that a perceived pleasant ad that possesses the right information would not irritate the consumers but rather have huge prospect of being liked by them.

The right information and pleasantness of the message have ultimate purchase drive implication for the ad product as shown by Al-alak and Alnawas (2010) study that investigated the impact of mobile marketing towards creating purchase intention in the consumer. They discovered that when the consumer perceives SMS ad as useful, he will be persuaded to patronize the ad product.

This theory of perceived usefulness finds collaboration in Ayoola (2014) study which used Relevance theory to discuss how Nigerian GSM networks use subtle SMS messages to manipulate subscribers. He found that when SMS message is viewed as manipulative it is because it affects both belief and emotional systems at the same time and gets the consumer to decide to buy the product advertised.

Wouters and Wetzels (2006) partial experiment investigated the potency of SMS at producing recall effect and found SMS capable of increasing the recall of an advertisement. The findings is supported by the result of Sung & Cho (2012) that investigated the difference in changes text, motion pictures and s components of an advert diminishes, the cognitive component takes prominence with the text content of the ad kept in the consumer's memory to form attitude over time.

Drossos, Giaglis and Vlachos (2009) study that used hierarchy of effects theory to examine the factors that impact the effectiveness of SMS advertisements on attitudes of consumers toward the advertisement, the product brand and, their intention to purchase the ad product found differently. They found that the narrow information capacity of SMS advertisements does not allow for adequate information required in cognitive products. They suggest that the possible stimulation such limited information could cause is in the likelihood of affective.

III. Methodology

This study was empirical and it adopts a "*survey method*" and design. The area of this study consists of Port Harcourt metropolis, in Rivers state, Nigeria. The population of the work consists of the subscribers of telecom services in selected in major Port Harcourt areas. This city was considered because it is the capital city of Rivers State and has largest concentrated of people from diverse background and tribe. The subscribers were selected through a convenient sampling technique. The total populations of the subscribers selected in the selected Port Hacourt towns were2532. The researcher determined the size of the sample. A total of 302 sample was drawn from the study population. Data for this study were collected mainly from primary source through questionnaire that was self-administered. The answer options for the questionnaire were developed using Likert scale with: SA – Strongly Agree, A – Agree, U – Uncertain, D – Disagree, SD – Strongly Disagree. Content and face methods of validity were done on the instrument. Also, the value 0.86 was gotten from reliability test analyzed through the method of Cronhbar Alpha.

IV. Data Analysis And Presentation

This section presents various data gathered and the analytical techniques used. Of the three hundred and two (302) questionnaires administered, only two hundred and ninety eight (298) representing 98.7% were returned and found good for the data analysis.

Data Presentation/Analysis

Table 1: Biographical data of the respondents

Biography Info	Options	Freq	Percent
Gender	Male	198	66.5%
	Female	100	33.7%
	Total	**298**	**100%**
Occupation	Students	79	26.5%
	Non-Students	219	73.5%
	Total	**298**	**100%**
Mobile Networks	MTN	95	31.8%
	GLO	77	25.8%
	Airtel	43	14.4%
	Etisalat	38	12.8%
	Others	45	15.2%
	Total	**298**	**100%**

Source: Researcher Field Survey, 2017

The biographical information shown above revealed that many of the respondents of the selected fourfirms were male (67%). Also, majority of the respondents in the organizations were non students such as civil servants, businessmen, artisans (74%). Furthermore, most of the respondents (32%) were subscribers of MTN.

The mean, standard deviation and ANCOVA are the statistical tools applied in the study analyses. Tables 1and 2 show findings of the study.

SN	QUESTION ITEMS	MEAN	STANDARD DEVIATION
1	**Cognitive attitude of the consumer**	**6.123**	**0.9686**
	The msg supplied the relevant information about the product	6.123	0.9686
2	**Affective attitude of the consumer**	**5.631**	**0.5645**
	The msg is entertaining	5.878	1.5434
	The msg is enjoyable	6.546	0.8566
	The msg is fun to use	4.757	2.2551
	The msg is exciting	5.341	1.3524
3	**Conative attitude of the consumer**	**5.550**	**0.7645**
	I will very likely buy the product	6.975	1.2564
	I will definitely buy the product.	5.463	0.8967
	I will buy product when the need arises	4.213	2.1352

SN	QUESTION ITEMS	MEAN	STANDARD DEVIATION
1	**Cognitive attitude of the consumer**	**3.694**	**0.3542**
	UTM is a good source of product information	4.214	1.3442
	UTM ad supplies relevant product information	3.457	1.9453
	UTM ad good source of up-to-date product information	5.824	0.2456
	UTM ad makes product information immediately accessible	2.134	1.6353
	UTM ad is a convenient source of product information	2.845	1.2451
2	**Affective attitude of the consumer**	**3.552**	**0.2365**
	The UTM msg is entertaining	2.567	0.4674
	The UTM msg is enjoyable	3.823	0.9356
	The UTM msg is fun to use	2.355	1.242
	The UTM msg is exciting	5.463	1.8352
3	**Conative attitude of the consumer**	**3.039**	**1.2131**
	I very likely buy SMS ad products	4.352	1.2453
	I definitely buy SMS ad products	2.342	0.5746
	I buy SMS ad products when the need arises	2.424	0.8241

Mean benchmark = 4.

Test of Hypothesis
Hypothesis One:
H_{01}:   Unsolicited text messages (UTM) do not impact onsubscribers' cognitive attitude for telecom services among telecom firms in Nigeria

H_{A1}:   Unsolicited text messages (UTM) impact on subscribers' cognitive attitude for telecom services among telecom firms in Nigeria

Table: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Decisions on UTM and Cognitive Attitudes	298	24.200	16.11101	3.71811

Table: One-Sample Z-Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	z	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Decisions on UTM and Cognitive Attitudes	6.119	297	.002	24.2000	29.3300	44.1600

Source: SPSS analysis of field data 2017

Hypothesis Two:
H_{02}: UTM do not have affective action (i.e. effect) on consumers' preference for telephone services
H_{A2}:UTM have affective action (i.e. effect) on consumers' preference for telephone services

Table: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Decisions on UTM and Affective Attitude	298	22.5500	22.11332	3.43556

Table: One-Sample Z-Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	z	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Decisions on UTM and Affective Attitude	7.122	287	.003	22.5500	22.1100	37.4400

Source: SPSS analysis of field data 2017

Hypothesis Three:
H_{03}:   unsolicited test messages do not have conative attitudinal impact on information to telecom subscribers
H_{A3}:   unsolicited test messages have conative attitudinal impact on information to telecom subscribers

Table : One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Decisions on UTM and Conative Attitude	298	24.6000	19.84103	3.96821

Table: One-Sample Z-Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	z	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Decisions on UTM and Conative Attitude	9.181	297	.001	24.60000	22.3100	37.3400

Source: SPSS analysis of field data 2017

V. Result Findings

1.   The Impact of Unsolicited text messages (UTM) on subscribers' cognitive attitude for telecom services among telecom firms in Nigeria

Data for the test of this hypothesis were obtained from responses from the questionnaire. The Z-test was used to test the validity of the impact Unsolicited text messages (UTM) on subscribers' cognitive attitude for telecom services among telecom firms in Nigeria. The **tables** above reveals that z-test result shows the existence of significant result on the variables ($z = 6.119 >$ at $p< 0.05$). The significant level was found to be 0.02, and due to this we reject the null hypothesis and accept the alternate one which states that *unsolicited text messages (UTM) impact on subscribers' cognitive attitude for telecom services among telecom firms in Nigeria*

2.   The effect of UTM on consumers' preference for telephone services

Data for the test of this hypothesis were obtained from responses from the questionnaire. The Z-test was used to test the validity of UTM have affective action (i.e. effect) on consumers' preference for telephone services. The **tables** above reveals that z-test result shows the existence of significant result on the variables ($z = 7.122>$ at $p< 0.05$). The significant level was found to be 0.03, and due to this we reject the null hypothesis and accept the alternate one which states that *UTM have affective action (i.e. effect) on consumers' preference for telephone services*

3.   Conative attitudinal impact of Unsolicited test messages on information to telecom subscribers

Data for the test of this hypothesis were obtained from responses from the questionnaire. The Z-test was used to test the validity of the conative attitudinal impact of unsolicited test messages on information to telecom subscribers. The **tables4.1.15a&b** above reveals that z-test result shows the existence of significant result on the variables ($z = 9.181 >$ at $p< 0.05$). The significant level was found to be 0.01, and due to this we reject the null hypothesis and accept the alternate one which states that *unsolicited test messages have conative attitudinal impact on information to telecom subscribers*

VI. Conclusions And Recommendations

On the bases of findings, the study concludes that though spontaneous exposure of consumer to SMS advertising touches his/her cognitive/belief system with supply of information on the advertised product, so also his/her affect and conation, the overall effect of UTM in the three attitude components is not significant enough. Comparably the effect of SMS ad is higher on the cognitive component of the consumer than on the affect and behavioural components. Message spamming is therefore not significant viable persuasive advertising medium.

SMS spam has attained a global dimension. And Nigeria is not left out of this reality. The issue of spam had been identified as one of the aspects of services requiring most attention from NCC Unfortunately; the county is yet to have a legislation or regulation that comprehensively addresses mobile spamming. This study is one of the first studies to provide some insight into the state of SMS spamming in Nigeria. The study revealed that all mobile users in Nigeria have received at one time or the other unsolicited mobile messages, receiving an average of 2.45 daily. In the country, spamming is utilized majorly for commercial purpose: advertorial and promotional messages accounting for most spam messages that traverse the national cyberspace. However, the study also found out that malicious spammers are also leveraging on the continual increase in mobile adoption in the country. Most mobile users, unfortunately, do not report receiving spam SMS to either network operators or security agencies. Most, however, indicated they should hold the right to decide on the type of spams SMS they want to receive, and agreed on the need for more effective regulation of mobile messaging for marketing purpose. Current recommendations by the government are very limited in scope and potency. There are no guidelines on enforcement. Until more stringent regulations are put in place, value added service providers, telemarketers, and other SMS spammers will continue to abuse mobile bulk messaging.

Mobile firms should be cautious about the information content of their advertising message. This recommendation is aimed at producing advertising message that contains sufficient, pleasant and valuable information needed to positively engage the cognition of the consumer. Secondly, advertisers should re examine

the usefulness of UTM as a standalone mode because of the observed inherent limitations with regards to emotional appeal and shortage in information capacity, and possibly switch to amore effective mobile application. Gupta (2013) has already noted the present preference for ads to SMS among consumers. Nigerian audience has shown to be no exception. Finally, further studies on SMS spamming in Nigeria are worthwhile to determine its acceptability by consumers and so improve the quality of the strategy and, not cause irritation.

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