



Customer satisfaction: A sustainable moderator of antecedents – intention to use link of GSM amongst university lecturers in Nigeria

Igwe Rukani Sunny *, Amue Gonewa John

Senior Lecturer, Marketing Department, University of Port Harcourt, Nigeria P.M.B 5232 Port Harcourt Nigeria

Abstract

Business organizations mandate to deliver customer satisfaction is still a burning issue. However, satisfaction as a moderator of antecedent – intention to use link has received less attention in GSM service and consumer predictability. This article developed an integrated, empirical model of intention to use. The result revealed that satisfaction is a significant and indispensable moderator on antecedents' – intention to use link. It indicated a significant priority order of factors; service quality, brand image, customer value, social affinity to customer service as least influence on intention to use. To create sustainable loyalty, movement along antecedents-customer satisfaction is sufficient and necessary. Managerial implications from this study are also provided.

Keywords: Satisfaction; lecturers; intention to use; GSM; Service Quality

Published by ISDS LLC, Japan | Copyright © 2014 by the Author(s) | This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



Cite this article as: Sunny, I.R. and John, A.G. (2014), "Customer satisfaction: A sustainable moderator of antecedents – intention to use link of GSM amongst university lecturers in Nigeria", *International Journal of Development and Sustainability*, Vol. 3 No. 11, pp. 2101-2116.

1. Introduction

Global System for Mobile Communication (GSM) is recognized as a catalyst for transformation of the nation's goals (Gabriela and Badii, 2010), due to its ability to make unprecedented changes in virtually all sectors of human endeavor. Though in Nigeria it has increased growing importance of customer adoption but with unseemly customer satisfaction issues. Service operators daily unleash new service plan to gain customers confidence and loyalty; the customer satisfaction benchmarks are left fully unanswered. Customers incessantly experience all manners of dissonance and dissatisfaction from service and non- service usage failures. This appears in manner of poor billing and error, background voice, bombarding of junk short message service (SMS) and billing for unsolicited SMS, service failure and fluctuation for long time especially during highly celebrated festivity period and extreme weather conditions. Other are call divert, rigorous waiting time to reach and get response from customer care center, worse still is that customers pay for services they do not receive or enjoy. These may have caused why an average Nigerian consumer now use 2-4 GSM type at a time so as to avert disappointment and their future behaviors are seemingly unpredictable against these service providers. In spite of these dissonance, customer satisfaction has remained the pivotal and important activity in influencing customer loyalty and financial profitability (Drucker, 1973), and management challenge is on how to understand key driver, deliver, sustain and improve on satisfaction.

Customer satisfaction generally means the individual's perception, judgment of the performance of the product or service in relation to his or her expectation. Apart from satisfaction as indicator of quality of life, firms have linked satisfaction to loyalty and profit. Several studies on antecedent factors influencing customer satisfaction, intention to use and loyalty have been done both from organization, social and individual perspective (Churchill and Surprenant, 1982), with classical example from information system perspective of Technology Acceptance Model TAM (Davis, 1989) and more specific typology like social affinity, customer service, switching cost, brand image and reputation (Ogwo and Igwe, 2012). These factors have their varying effect and seem inadequate and in-exhaustive in predicting intention to use and satisfaction. Again, two extreme strides of debate on satisfaction, antecedents-loyalty link exist: one say that satisfaction is one of the determinants of customer loyalty with direct and positive result (Cronin and Taylor, 1992); others argued that antecedent factors influence satisfaction (Bolton and Drew, 1991; Lim et al., 2006). Similar argument is that several variables moderate the antecedents -intention to use relationship (e.g. Audrian, 2002), but these previous studies above merely looked at the direct linear influence of these antecedents on intention to use.

In addition, real life relationship situation is not always linear, moderating variables play an unassuming role in predicting consumer behavior which enhances the understanding of the link between relevant independent variables and dependent variables as well as the chance of established relationship has drawn much attention. Though scarce research has shown several moderators of the satisfaction-loyalty link; using nature of the product/service, the type of industry, and the competitive environment (Jones and Sasser, 1995), specifically, firm-related variables, firm/employee-customer interactions and individuals-level variables but with less studies on indirect moderator variable (satisfaction) on antecedent - intention to use link. Consequently, there is insufficient empirical research to evaluate the moderating role satisfaction play on the nexus of antecedents (service quality, brand image, reputation, switching barriers, customer service

and social affinity) and (intention to use and actual usage of GSM. With this research gap in mind and more, this research seek to (1) study the mediating effect of satisfaction on antecedents-intention to use in Nigeria (2) to find the contributory effect of each antecedent factors on intention to use GSM

By way of expanding the frontier of literature, we broadly distinguish four moderator categories of satisfaction: latent and manifest; and transaction-specific and cumulative satisfaction variables. In so doing, we address potential moderators that rarely appear in previous research. The relevancy of this research has both theoretical and managerial implication. From a theoretical perspective, our findings contribute to an increased frontier of understanding of the antecedents of customer loyalty and satisfaction, and expansion of satisfaction constructs. From a management perspective – GSM operators gain in terms of the appropriateness of the factors and strategies they use to enhance customer loyalty via satisfaction. Of more interest, our moderator analysis helps firms identify those specific factors in which the link between satisfaction, antecedent and loyalty are particularly strong and the ones that require more management time and resources as a sure way for retaining and sustaining customers' patronage. First, the theoretical underpinning the study is presented as satisfaction as moderator, intention to use, antecedents of intention to use, methods, finding, discussion and conclusion.

2. Theoretical underpinnings and hypotheses

2.1. Customer satisfaction

Customer satisfaction has its foundation in social exchange theory and resource dependency theory. The former believes that human behavior and social interaction are subjective of both tangibles and intangibles activities which are geared towards maximizing rational value choices (Blau, 1964), and the latter states that the role of other organizations acting as forces within an environment impacts on the behavior of a focal organization and that organizations are externally influenced, and external environments provide resources necessary and important for its continued survival. Drawing from this, Drucker (1973) said that customer satisfaction is the only economic and social justification of any business existence. Satisfaction is as old as business. From traditional to contemporary times, core marketing scorecards are measured on maximizing customer satisfaction among others. Customer satisfaction is the individual's perception of the performance of the product or service in relation to his or her expectation (Schiffman and Kanuk, 2009); comparative feelings of pleasure or disappointment (Kotler and Keller, 2006); measure of difference between perceived service cost and expected service benefit; customer's evaluation of need met expectation (Zeithaml and Bitner, 2000); customer's fulfillment response and emotional reaction following a disconfirmation experience (Oliver, 1997). Satisfaction is both pre and post-consumption experience which compares perceived quality with expected quality. Pre-consumption and cognitive perception involves latent feeling satisfaction when contrasted with manifest satisfaction. Satisfaction is conceptualized as an attitude like judgment, comparison, psychological feeling before, after a purchase, or an interaction with a service provider (Fournier and Mick, 1999). Inference can be drawn that customer satisfaction is a function of perception, difference, subjective, expectation, situational and has time dimension. What drives satisfaction are multivariable; customer emotional response, their attribution, expectation, perception of quality, and

product and service features (Zeithaml and Bitner, 2000; Szymanski and Henard, 2001). Furthermore, customer satisfaction is linked with profit, consumer behavior and loyalty types: “loyalist”, “Apostles”, “Defectors” – Consumer “terrorist” – ‘Hostages’ – Mercenaries (Schiffman and Kanuk, 2009). Quantitative and qualitative measures, as well as a variety of touch point with customers have been used to measure satisfaction. Two extremes approaches have widely been used as measures of customer satisfaction, cumulative or overall satisfaction and transaction – specific satisfaction. Overall satisfaction or cumulative satisfaction views it as a function of satisfaction with multiple experiences with the service provider. Crosby and Stephens (1987) approach is more suitable in our study and we asked about consumer’s degree of satisfaction, wise decision, how pleased, happy, regret a consumer is regarding both specific (the sales/service staff, service and their purchase, customer service, image, service quality delivery), together with their overall degree of satisfaction with the brand. Additionally, we see satisfactions as inner comfort of overt expression of feeling towards brand and brand touch point.

2.2. Moderating effect of satisfaction on antecedent factors and intention of use

Relationship between variables is better explained on certain context. Moderators are variables that help explain and affect the shape or strength of a relationship between an independent variable and a dependent variable. Evidence exists to show the role moderator variables play, especially with respect to the satisfaction-loyalty link (Bolton and Lemon, 1999; Walsh *et al*, 2006). Again the moderating affects of demographic (gender, age, income) variables and two psychographic variables (involvement, variety-seeking) on the direct relationship between satisfaction and loyalty are shown (Homburg and Giering, 2001). Similarly, using moderated regression analysis, Bloemer and Kasper (1995) show that involvement has a positive moderating effect on the satisfaction-loyalty link. Magi (2003) study uncovered the moderating effect of individual difference variables, (bargain-hunting propensity or apathy) satisfaction-share relationship, it further revealed that shoppers who value social interactions with store personnel are less sensitive to satisfaction.

Antecedent factors developed in our model are argued to influence customer satisfaction; in turn customer satisfaction influences intention to use and behavioral usages (Soderlund, 2010). Truly, evidence showed that customer satisfaction as a driver positively correlates with customer intention to use (Cronin and Taylor 1992). Specifically, previous studies (Lim *et al.*, 2006; Varki and Colgate, 2001) establish positive relationship with varying influence level between transmission/network qualities; network coverage; pricing/billing; data services; and customer service on clients’ satisfaction/loyalty judgments, largely in developed nations and/or early market. Though, a few revealing contrast was found that satisfaction has less role to play on loyalty (Khatibi *et al* 2002; Reichheld 1996). It assumes that while loyal customers need to be satisfied, minute satisfied customers are not necessarily loyal. Satisfaction attributes is neither simple nor linear as satisfied customers may also defect (Jones & Sasser, 1995). Our position then is when customers perceive and are satisfied with the antecedent factors: price, service quality, social affinity, switching costs, brand image and reputation high, it increases their satisfaction levels. And the higher the level for specific and general antecedents of satisfaction the better it helps to reinforce intention to use and behavioral usage.

However, some may have argued that satisfaction may have indirect influence on customer intention to use and usage. On the basis of this argument, we propose this hypothesis;

- **H1:** Customer satisfaction does not moderates the effect on antecedents on intention to use

2.3. Intention-to-use

Intention to use draws more from Fishbein behavioral intentions models also referred as Theory of Reason Action (TRA). Fishbein and Ajzen (1975)) defined attitude towards use as an individual's positive or negative (evaluation affect) about performing the target behavior .Intention-to-use seems to lack concrete measure since it is a futuristic, lack quantitative precision and has a psychological construct. However, attitudinal, intentional and behavioral have been adopted as proxies' measures of intention-to-use (Dick and Basu, 1994). A worthy definition was by Dick and Basu (1994) who suggest that favorable attitude and repeat purchase were required to define patronage or intention-to-use. Attitudinal measures help predict in greater grasp of the act as associated with the development and modification of patronage (Oliva et al., 1992). Fishbein and Ajzen (1975) argued that attitudes are functionally related to behavioral intentions, which predict behavior and that behaviors are contingent upon the attitude towards several variables within and outside the context of action in question. Consequently, the strength and degree of commitment relates to their level of attitude involvement- from low inertia to a strong emotional commitment. This commitment might be based on customers' intentions to want, expectation and plans for the future (Sunderland, 2010). Critically, intention to use recognizes that certain uncontrollable factors limit our ability to predict the future with absolute 100 percent certainty.

2.4. Antecedents of intention-to-use

In service industries such as GSM, the ability of a service provider to learn and provide the attributes consumer consider when making purchase and what retain the customer with a service provider over long period and their satisfaction would drive competitive advantage. Behavioral intention is generally and often predicted on the multi-attribute models. A model often used to explain behavioral intention is the Theory of Reasoned Action (TRA) that include four general concepts; behavioral attitudes, normative pressure, usage intention and actual use. TAM model is a useful tool in explaining intention to use in mobile services. According to the Technology Acceptance Model (TAM) perceived usefulness (PU) and perceived ease-of-use (Peou) determine the extent to which user attitudes towards intentions to-use IT are influenced and viral behavior. The antecedent factors indentified in this paper may likely influence intention to use include, switching cost, customer service, social affinity, service quality, brand image and reputation, and customer value.

2.4.1. Switching costs

Certain industry conditions poses constrain on consumer free choice of volition. Consumers have the inert to switch from brand to brand in search of their satisfaction. Brand switching or brand jump (Chaarlas et al., 2012), entails abounding the routine use of a particular product or brand and adopting steady usage of different brand of the brand category. Generally, what prevents customer quick switching behavior ranges

from customer variety seeking characteristics, time and energy to wait or look for new brand, regulations and documentation stress, and learning inconveniences to marginal cost to purchase a new brand. And it all depends on individual and industry. Brand switching costs is found to influence intention to use (Jones, 2002).

2.4.2. Customer service

The levels of additional services apart from core service given to customers influence their loyalty. Customer service is bundle of supportive services added to core service to speedily meet customer satisfaction, and without which the core may not met full customer delight. This customer cares (e.g. complaint handling and direction on how to recharge etc) are either managed by humans or machine automated. Quality customer service may help strengthen customer bound and satisfaction with service provider. The absent or low customer service delivery may result to dissatisfaction. We accept the views of SERVQUAL model as widely used to measure customer service and found to influence intention to use (Gerpott et al, 2001).

2.4.3. Social affinity

Contrarily to the information system perspective of studies on organizational context which main purpose for use of mobile phone system is effectiveness, efficiency and utility, consumer daily life has a different perspective of no utilitarian motives- uses of gratification, fun seeking, entertainment, and social cohesion (Nysveen et al., 2005). Also in domestication research people use mobile phone as a way to express personality, status, bond and image in public context (Nysveen et al., 2005), as is predominant among Nigeria GSM users. Affinity represents bonding, intimacy and sharing identities with separate closed groups (McAlenxander *et al.*, 2002). Affinity marketing is analogous to social exchange theory and brand community where there is high ritual, lovers and admirers of a brand and who consume for social reason more. Indeed social affinity helps brand evangelism via social media and these induce more intention to use.

2.4.4. Service quality

Virtually all firms strive to differentiate in service quality and make service quality their priority issue (Zeithaml et al., 1996). Service quality has become a yard stick for consumer's evaluation and satisfaction. Service quality represents customer's evaluation of actual and perceived benefit against expectation (Cronnin and Taylor, 1994). Service quality measures in GSM include network coverage, reliability and availability of network in and out of peak season and heavily celebrated yuletides, accuracy and promptness in responding to service failure. Service quality is the core attribute customer seek that increase their satisfaction and reduces customer complain. We generally used SERVQUAL model (Zeithaml and Bitner, 2000). Studies have found service quality to influence intention to use (see, Ogwo and Igwe, 2012).

2.4.5. Customer value

Both the firm and customer are there to give and take value. Value is a recurring concept in business. The customer value represents an equity balance between what a customer sacrifices and what he receives from the firm's offering (Oliver and Desarbo, 1988). Customer expends resources (tangible and intangible) in an

attempt to get real, reasonable, hedonic, social and conditional values in GSM. The perceptual difference between the give and take of customer is what create customer loyalty behavior determine. The value must be perceived as been price fair, competitively reasonable and economical. The industry irony is what MTN did at their early stage of market entry, selling exorbitant prices far and above any price sold in the world. Similarly, customer value is found to influence intention to use (Ogwo and Igwe, 2012).

2.4.6. Brand image/reputation

Brand image is the perception about a brand name or symbol, identifier and differentiator as reflected by the brand as held in a consumer's memory (Kotler et al, 2006). Under purchase condition, brand image and reputation help to evoke a brand when a customer have no readily known choice in the category set. It fellows that the level of marketing communication, bonuses, advertising and promotion coupled with other brand drivers are what create and sustain brand image and intension to use. Brand image has a perceptual and psychological constructs and are organized through analysis, interpretation and meaning from everything, identities and cues about the brand by the customer and the public (Aaker, 2004). Corporate social responsibility (CSR), cause related marketing and level of brand association with other brand identities help to build Brand reputation. Studies found that Brand image and reputation positively influence intention to use (Chaudhuri and Holbrook, 2001).

2.5. Hypothesis; direct effect of antecedent on intention to use

Consistent with previous research (e.g. Davis, 1989; Fishbein and Ajzen, 1975; Nysveen et al., 2005), we conceptualize antecedents – intention to use link as a multidimensional constructs. The main point of multi-attribute model in that consumers' evaluation of salient belief about GSM directly affects their overall attitude toward the product/service. In studying consumer's intention to use mobile services, we postulate a multivariate and multi-attribute model that integrate from; companies, individuals, service/product and social perspectives. Thus, this model includes six influences of consumer's intention to use: customer value, switching cost, service quality, brand image/reputation, social affinity, and customer service care. These constructs have already been discussed in the preceding section with their individual supportive theoretical evidences. On the basis of this argument, we suggest a hypothesis of direct effect of intention to use mobile service.

- **H2:** Intention to use is a function of customer value, switching cost, service quality, brand image/reputation, social affinity, and customer service influences of mobile service among university lecturers in the south-south zone of Nigeria.

3. Methodology

A quasi-experiment and cross-sectional survey was adopted on a snap shot of 3 weeks in March, 2012 on university lecturers and users of GSM service (MTN, Etisalat, Airtel, GLO). Next, a total of 308 lecturers and users of mobile service were samples from government owned universities in south-south region of Nigeria.

A specified region and our homogenous respondents were taken to cater for variance that may appear due to regional and professional differences and to allow for better generalization and conclusion. The instrument was questionnaire which was structured in five- point Likert type scale. Statistically, step wise regression test- to explain the overall and each variable contribution to intention to use and partial correlation test-to analyze satisfaction as a moderating variable on antecedent on intention to use.

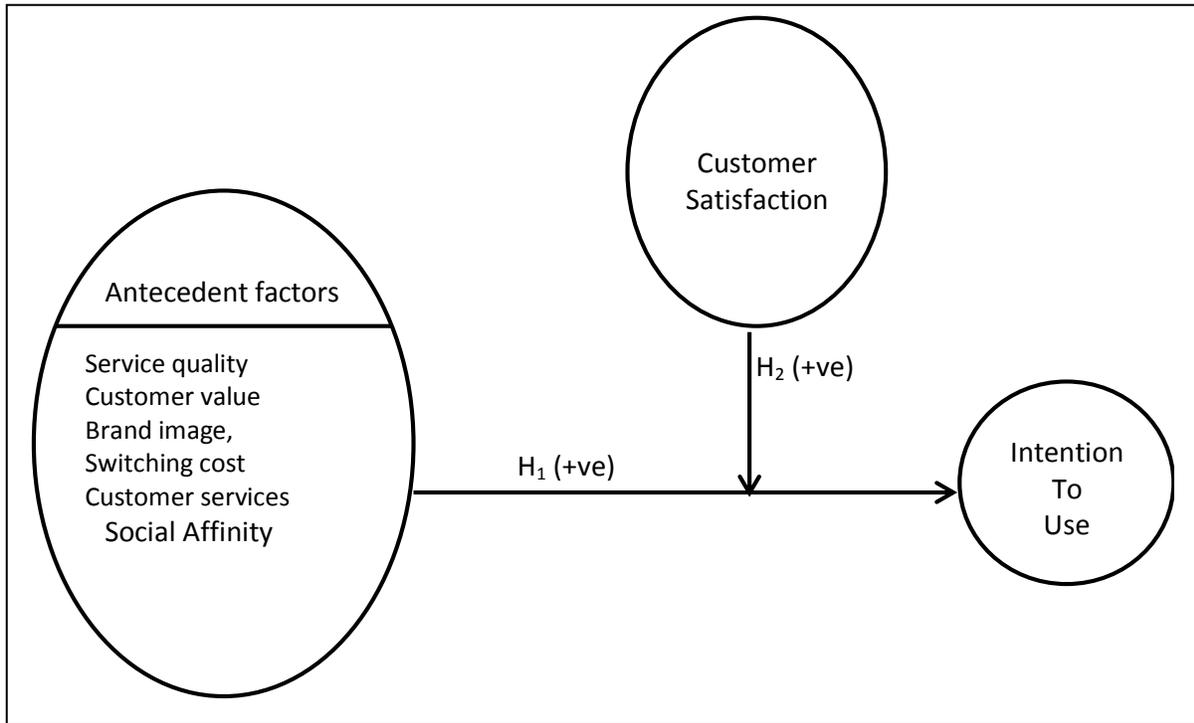


Figure 1. Conceptual framework of satisfaction as a moderator of antecedent factors on intention to use link (Source: Conceptualized from literature, 2014)

3.1. Measure

Generally from literature a multi dimension item scales were built on this study measure which was adapted from the various constructs and these has been validated. It followed Jones and Sasser (1995) measurement scale of cost of losing friends, psychological cost, learning cost, time and bureaucratic cost.

- **Customer service** was captured with measures of SERVQUAL (Zeithalm and Bitner, 2000); like, McAlenxander et al. (2002), we measures social affinity as an expression of subscribers self, respect, social acceptance, brand community and conformity to certain groups (Igwe, 2012).
- **Service Quality:** adapted scale from (Johnson and Sirikit, 2002) measures with little modification. Customer value constructs statements; value or price against competitors, reasonable, fairness and personal value were used.

- **Brand Image & Reputation:** Chaudhuri and Holbrook (2006) measurement scale of respect, think well and reputation and awareness, recall was adopted.
- **Intention to Use:** Intention to use the brand in the future and the intention to recommend the brand to others and intention as-commitment (IC). On satisfaction (Fishbein and Ajzen, 1975) scale of please, happy and wise decision with specific and general service with little modification.

4. Data analysis

Table 3.1. model of summary showing the variance of the model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.440 ^a	.194	.191	.97402
2	.492 ^b	.242	.237	.94596
3	.522 ^c	.272	.265	.92848
4	.556 ^d	.309	.300	.90613
5	.642 ^e	.412	.402	.83742

- Predictors: (Constant), Brand Image and Reputation
- Predictors: (Constant), Brand Image and Reputation, customer value
- Predictors: (Constant), Brand Image and Reputation, customer value, switching cost
- Predictors: (Constant), Brand Image and Reputation, customer value, switching cost, social Affinity
- Predictors: (Constant), Brand Image and Reputation, Customer value, switching cost, social Affinity
- Dependent Variable: Intention to use.

From table 3.1 and table 3.2 ,it revealed that (Antecedent) of intention to use” which variable is entered in sequence – brand image/reputation, customer value, switching cost, social affinity and service quality, while customer service was not entered because it did not meet the criteria of acceptance into the model . In table 3.1 with the heading ‘model’ outlines the order in which the variables were included in the analysis. This is also shown in the model (a₁-e₅) as in footnote of table 3.1. By implication customer service did not meet the criteria for inclusion into the regression model expressing the relationship between “antecedents of customer patronage. In table 3.2, with the inclusion of service quality in model 5, the R value increased to 0.642 which indicate that service quality correlates strongly with customer patronage while the R square indicates the proportion of the variance in the dependent variable that is explained by the regression model that is our model 5 of all the predicting variables has .412 expressed as a now 41.2 percent explained variation in customer patronage (intention to use). The individual variable’s contribution is shown in the square of model for instance in model I, brand image/reputation alone contribute R square 19.1 percent to intention to use. Furthermore, customer value contributes (24.2% - 19.4%=4.8%) to intention to use etc.

Table 3.2. Result of the regression analysis of the study variables coefficient^s

	Model	Unstandardized Coefficients		Standardized coefficients	T	Sig
		B	Std. Error	Beta		
1	(constant)	1.240	.261		4.749	.000
	Brand Image and Reputation	.573	.067	.044	8.580	.000
2.	(constant)	1.176	.254		4.631	.000
	Brand Image and Reputation	.410	.075	.315	5.494	.000
3.	Customer value	.242	.055	.253	4.408	.000
	(constant)	.522	.266		3.193	.002
	Brand Image and Reputation	.324	.077	.249	4.197	.000
4.	Customer value	.214	.054	.223	3.926	.000
	Switching cost	.269	.076	.193	3.548	.000
	(constant)	.522	.272		1.918	.056
	Brand Image and Reputation	.213	.080	.164	2.659	.008
5.	Customer value	.170	.054	.178	3.145	.002
	Switching cost	.335	.076	.241	4.424	.000
	Social Affinity	.251	.062	.218	4.023	.000
	(constant)	.437	.252		1.737	.083
5.	Brand Image and Reputation	.235	.074	.181	3.168	.002
	Customer value	.327	.055	.342	5.997	.000
	Switching cost	.597	.079	.429	7.580	.000
	Social Affinity	.523	.069	.453	7.602	.000
	Service Quality	.609	.084	-.525	-7.263	.000

a. Dependent Variable: Intention to use

Source: Research Data, March, 2012 SPS Outputs of stepwise Regression Analysis

From table 3.2 it indicated further that each and collective contribution of predictor variable to the dependent variable and significant of the model using the Beta under standardized coefficient. The largest beta coefficient is -.525 (52.5%) which is service quality and is significant since the sig. or probability value is 0.000 less than 0.05 par-value. This means that service quality makes the largest contribution to explaining intention to use mobile services. Brand image and reputation makes the second largest contribution with a beta of .440 (44.0%), followed by customer value contributing .253 (25.3%). The beta for social affinity is next with .218 (21.8%) while switching cost has least beta .193 (19.3%) and contribution to intention to use.

Generally the sig (p-value) column show whether each variable contribution is statistically significant to the equation. If the sig. value is less than .05, then the variable is making significant contribution to the prediction of the dependent variable; if sig greater .05 then it can be concluded that it make no significant contribution. Thus, from the table 3.2 that virtually all the variable, service quality, brand image/reputation, customer value, social affinity and switching cost make significant contribution to intention to use. Customer service did not meet the criteria for inclusion into the model.

Table 3.3. Partial Correlation Analysis showing the Moderating Effect of Customer Satisfaction on the influence of the antecedents on intention to use

Control Variables			Antecedents	Intention to use	Satisfaction
-none ^a	Antecedents	Correlation Significance (2-tailed) df	1.000 . 0	.477 .000 306	.911 .000 306
	Intention to use	Correlation Significance (2-tailed) Df	.477 .000 306	1.000 . 0	.630 .000 306
	Satisfaction	Correlation Significance (2-tailed) Df	.911 .000 306	.630 .000 306	1.000 . 0
Satisfaction	Antecedent	Correlation Significance (2-tailed) Df	1.000 . 0	.223 .007 305	
	Intention to use	Correlation Significance (2-tailed) Df	.223 .007 305	1.000 . 0	

a. Cells contain zero-order correlations

From table 3.3 the results revealed that there is a significant relationship between moderating effect of customer satisfaction on antecedent factors and intention to use. According to statistical package for social science (SPSS) version 15.0 explanatory scheme, if there is significant difference between (zero -order partial co-efficient (ZPC) and the controlled partial co- efficient first order co efficient CPC = the differential partial co- efficient DPC $+> 0.01$ then the hypothesis is significant. Therefore, (coefficient $r=.477$; $pv =0.05$ – co-efficient $r= .223$; $pv 0.05$) = 0.254. By this result, it means that customer satisfaction through it moderating effect influence antecedent on intention to use.

5. Discussion

Unlike previous studies (e.g. cronin and Taylor, 1992) which examined the direct role satisfaction play on intention to use (loyalty); this paper's major aim is to look at the indirect and moderating role customer satisfaction play on the antecedent factors and intention to use mobile phone services. The result of the (H1) supports and verifies that customer satisfaction moderate and helps explain the influence of antecedent factors on intention to use. This is consistent with Bolton and Drew (1991) and bouldering et al. (1991) which found how service quality (attributes) and behavioral intention could be predicted by customer satisfaction. It follows that when customer perceive the antecedent factors high; it increases their satisfaction level which in turn helps to reinforce on intention to use. Collectively, the effect of satisfaction show how well

a customer decision was wise with the choice of particular GSM and how happy and pleased with each of the antecedent factors on loyalty. Customers who have satisfactory and 'Satisficing'- time bound perception of service and non-service attributes are likely to guarantee future patronage. Antecedent factors alone cannot better explain intention to use unless predicated on the level of customer satisfaction.

The second aim is to priorities and order the antecedent constructs using step-wise regression and relate same to intention to use. Our hypothesis H2 is supported and verified that collectively and individually that service quality, brand image and reputation, customer value, social affinity, switching cost are significant driver of intention to use. This collaborates (Nysveen et al., 2005) founding that consumers' evaluation of salient belief about a multi-attributes model of product/service directly affects their overall attitude toward the product/service. Though, their overall effect is significant on intention to use, it is also worthy to examine their order and strength of each contributor. The first prioritized antecedent variable is service quality which has the highest contributor to intention to use, i.e. Customers consider core service or service quality; reliability, responsiveness, coverage in choice making and future patronage. Secondly brand image and reputation has the next highest contributor to intention to use, customer are influenced to remain in a particular GSM due to level of promotion, bonuses, image, respect and reputation of the brand. Customer value came third highest and significant contributor showing that customer will patronize GSM type when they perceive their GSM to provide value that real, reasonable, offer value for money and offer better comparative prices. Social affinity has the fourth significant variation to intention to use, customer are more positive and will patronize particular GSM when they perceive it as a way of expressing one's self esteem, social approval, self respect and group cohesion. Despite switching cost had the lowest but significant contributor, it again show that the respondent were literate and did not much consider switching because customer perceive competing GSM service provider as literally the same. Though hassle, lose of friends contacts, time and effort were also significant indicators of switching cost considered. Note that number portability had not been fully operational; this may have influenced their retarded switching behavior. Customer service did not meet SPSS version 15.0 criteria for inclusion in the model does not mean it is not significant in driving intention to use, rather customers do not place premium on it but on core services and that the absence of customer service may be seen as a 'dissatisfier'. And that consumer perception of customer service differentiation has not reach a considerable threshold.

6. Implication

This study provides several implications for researchers and practicing managers. We provided a new insights and empirical data into the link between enlarged antecedent factors (service quality, brand image, customer value, social affinity, switching cost and customer service) and intention to use by expanding the model with the introduction of customer satisfaction as a moderating variable.

Hence, GSM operators seeking for loyalty must first consider providing satisfying multivariate attributes, especially as it would invoke and ensure customer specific and cumulative satisfaction. Marketer should as a matter of policy and practice proactively show that only totally satisfied customer is the sure way to

guarantee loyalty. In doing so, service provider should consider 'Red Alarm System' that focuses on customer – satisfaction information barometer that will help in serving their customers well.

This customer satisfaction barometer would entail first service quality that are reliable, fast simple, dependable, empathic, customized, wider coverage service; provide brand association, regular and quality promotion program and corporate social responsibility. Ensure that they provide real customer value, by segmenting and targeting their service to cater for various personalities, economic, social class difference through price package and various theme and appeal in advertising.

Service providers should now know which specific factor that would yield more satisfaction and loyalty, as such, the ones that require more management concentration.

Policy makers should ensure that the seller's market be destroyed through licensing of more operators, enshrined workable number portability that will provide liberal customer choice movement. Service operators should note that customer satisfaction is the only the positive barrier to switching.

7. Conclusion

In a single study, our study have shown a more holistic, significant association between antecedent factors and intention to use GSM service amongst lecturers of government owned university in South -South of Nigeria. Specifically, separate analyses revealed that customer satisfaction statistically mediate and better predict the influence of these antecedent factors on intention to use. Driving intention to use and loyalty is a function of firms delivering above-average customer expectation and satisfaction of values of these antecedent constructs and beyond. Therefore the moderating effects of satisfaction are contingent, necessary and sufficient upon the level of these perceptions of antecedents constructs on sustainable loyalty.

We sincerely appreciate the University of Port Harcourt for part sponsoring of this research and tireless efforts of my Ph.D supervisors prof. Ogwo. E. Ogwo and prof. kalu Sylvia for their pain taking to restructure this work.

References

Audrian, A.F. (2002), "Can we enhance consumer satisfaction for a utility?Some elements through the attribute satisfaction relationship analysis", *Proceedings of the 11th AMA Frontiers in Services Conference 38. (Maastricht): American Marketing Association 38,*

Blau, P. (1964), *Exchange and power in social life*, Wiley, New York.

Bloemer, J. and Kasper, H.D. (1995), "The Impact of Satisfactions on Brand Loyalty: urging on classifying satisfaction and brand loyalty", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, Vol. 7, pp. 151-60.

Bolton, R.N. and Drew, J.H. (1991), "A Longitudinal Analysis of the Impact of Services Changes on Customer Attitude", *Journal of Marketing*, Vol. 55 pp.1-9.

- Bolton, R.N. and Lemon, K.N. (1999), "A Dynamic Model of Customer Usage of Services: Usage as Antecedents and Consequences of Satisfaction", *Journal of Marketing Research*, Vol. 36, pp. 171-186.
- Boulding, W., Kalra, A., Stadin, R. and Zeithaml, V.A. (1993), 'A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intention', *Journal of Marketing Research*, Vol. 30, pp. 7-27.
- Chaarlas, M.C., Rajkumar, R., Kogila, N., Lydia, J. and Noorunisha, M.C. (2012), 'Service Related Issues Faced by Clients – The Major Cause Behind Brand Switching in Cellular Phone Service Industry', *Arabian Journal of Business and Management Review (Oman Chapter)*, Vol.1 No. 8, pp. 33-46.
- Chaudhuri, A.M. and Holbrook, M.B. (2001), 'The Chain of Effect from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty', *Journal of Marketing*, Vol.65 (April), pp. 81-93.
- Churchill, G.A. and Surprenant, C. (1982), 'An Investigation into the Determinants of Customer Satisfaction,' *Journal of Marketing Research*, Vol. 19 No. 4, pp. 491-504.
- Cronin, J.J. and Taylor, S.A. (1992), 'SERVPERF vs SERVQUAL Reconciling performance based and perception minus expectation measurement of service quality', *Journal of Marketing*, Vol.58, pp.125-31.
- Crosby, L.A. and Stephens, N. (1987), "Effects of Relationship Marketing on Satisfaction, Retention, and Prices in the Life Insurance Industry", *Journal of Marketing Research*, Vol. 24 (November) pp. 404-411.
- Davis, F.D. (1989), 'Perceived Usefulness, Perceived Ease of use and user Acceptance of Information Technology', *MS Quarterly*, Vol. 13 pp. 319-340.
- Dick, A. and Basu, K. (1994), 'Customer Loyalty: Toward and Integrated Conceptual Framework', *Journal of Academy of Marketing Services*, Vol. 22 No. 2, pp. 99-113.
- Drucker, P.F. (1973), *Management: Tasks, Responsibilities, Practices*. NY-Harper and Row, New York,
- Fishbeing, M. and Ajzen I. (1975), *Belief, Attitude, Intention, Behaviour: An Introduction to Theory and Research*, Reading M.A. Addison Wesley Publishing Company, New York.
- Fournier, S. and Mick, D.G (1999), "rediscovering satisfaction", *Journal of Marketing*, Vol. 63, pp. 6-21.
- Gabriela, B. and Badii, K. (2010), Impact of Mobile Services in Nigeria: How Mobile Technologies Are Transforming Economic and Social Activities. *Pyramid Research UK*. Retrieved from <http://www.pyramidreaserach.com/download.htm>? September 2012.
- Gerpott, T.J., Rams, W. and Schindler, A. (2001), 'Customer Retention Loyalty and Satisfaction in German Mobile Cellular Telecommunication Market', *Telecommunication Policy*, Vol. 25 pp. 249-269.
- Homburg, C. and Giering, A. (2001), "Personal Characteristics as Moderators of the Relationship between Customer Satisfaction and Loyalty: an empirical analysis", *Psychology & Marketing*, Vol. 18 No. 1, pp. 43-66.
- Igwe, S.R. (2012), 'Factors Influencing University Lecturers' Patronage and Usage of GSM service in South-South Nigeria', *Being unpublished Ph.D Thesis presented to University of Port Harcourt, Choba, Nigeria*.
- Johnson, W.C. and Sirikit (2002), 'Service in the Tai Telecommunication Industry: Tool for Achieving a Sustainable Competitive Advantage', *Managerial Decision*, Vol. 40 No.7, pp. 693-703.

- Jones, T.O. and Sasser, W.E. (1995), 'Why Satisfied Customer Defect', *Harvard Business Review*, Vol. 73 No. 6, pp. 88-99.
- Keller, K.L. (2001), 'Building Customer based brand-equity', *Marketing Management*, Vol. 10 No. 2, pp. 14-19.
- Khatibi, A.A., Ismail, H. and Thyagarajan, V. (2002), 'What Drives Customer Loyalty: An Analysis from the Telecommunications Industry', *Journal of Targeting, Measurement and Analysis for Marketing*, Vol.11 No.1, pp. 34-44.
- Kotler, P. and Keller, K. (2006), *Marketing Management 12th ed* Pearson Prentice Hall, U.S.A. New Jersey.
- Lim, H., Widows, R. and Park, J. (2006), 'M-Loyalty: Winning Strategies for Mobile Carriers', *Journal of Consumer Marketing*, Vol. 23 No. 4, pp. 208-218.
- Magi, A. (2003), "Share of Wallet in Retailing: The Effects of Customer Satisfaction, Loyalty Cards Shopper Characteristics", *Journal of Retailing*, Vol. 79 No. 2, pp. 97-106.
- McAlexander, H.J., Schouten, J.W. and Koenig, H.F. (2002), 'Building Brand Community', *Journal of Marketing*, Vol. 66 No 1 pp. 38-54.
- Nysveen, H., Pederson P.E. and Thorbjornsen, H. (2005), 'Intentions to use Mobile Services: Antecedents and Cross-Service Comparisons', *Journal of Academy of Marketing Science*, Vol. 33. No. 3, pp. 330-346, DOI 10.1177/0092070305276149.
- Ogwo E.O. and Igwe S.R. (2012), 'Some Key Factors Influencing Attitudes to Patronage of GSM Services: The Nigerian Experience', *International Journal of Business and Management*, Vol. 7 No. 18, pp. 82-91.
- Oliva, T.A., Oliver, R.L. and MacMilan, I.C. (1992), 'A Catastrophe Model for Developing Service Satisfaction Strategies', *Journal of Marketing*, Vol. 56 pp. 183-193.
- Oliver, R.L. (1997), *Satisfaction, behavioral perspective on consumer*, McGraw-Hill, New York.
- Oliver, R.L. and Desarbo, W.S. (1988), 'Response Determinants in Satisfaction Judgments', *Journal of Consumer Research*, Vol. 14, pp. 495-508.
- Schiffman, L.G. and Kanuk, L.L. (2009), *Consumer Behavior*, Pearson , New Jersey. International Edition, 9th edition.
- Soderlund, M. (2011), 'Customer Satisfaction and its Consequences on Different Behavioral Intention Constructs', *Journal of Consumer Behaviors*, Vol. 1, pp. 145-166.
- Szymanski, D. and Henard, D. (2001), 'Customer Satisfaction; A Meta Analysis of the Empirical Evidence', *Journal of Service Research*, Vol. 3 No. 3, pp. 220-231.
- Varki, S. and Colgate, M. (2001), 'The Role of Price Perception in an Integrated Model of Behavioral Intentions', *Journal of Service Research*, Vol. 3, pp. 232-240.
- Walsh, G., Evanschitzky, H. and Wunderlick, M. (2006), "An Examination of moderator effects in the four-stage loyalty model", *Journal of Service Research*, Vol. 8. No. 4, pp. 330-45.
- Zeithaml, V.A., Barry, L.L. and Parasuramnan, A. (1996), 'The Behavioral Consequences of Service Quality', *Journal of Marketing*, Vol. 60 April, pp.31-46.<http://dx.doi.org/10.2307/1251929>.

Zeithmal, V.A. (1988), 'Customer Perceptions of Price, Quality and Value: A Means End Model and Synthesis of Evidence', *Journal of Marketing*, Vol. 52 No. 2, pp. 22-41.