SERVICE INNOVATION AND CUSTOMER SATISFACTION OF TELECOMMUNICATION FIRMS IN PORT HARCOURT, RIVERS STATE, NIGERIA

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Abstract:

This study empirically investigated the relationship between service innovativeness and customer satisfaction of telecommunication firms in Port Harcourt, using the diffusion of innovation theory. The study adopted a cross-sectional survey research design. The population of the study was 3,254 undergraduate students' active voice subscribers of the four major service providers (MTN, Airtel, Globalcom and 9Mobile) in the Faculty of Management Sciences, University of Port Harcourt. The Taro Yamane formula was used to determine the sample size of 400. The four hypotheses of the study were tested using Spearman Rank Correlation Coefficient with the help SPSS 21. It was found that there is a positive and significant relationship between service innovativeness (proxied by New Service Concept and Customer Interface) and customer satisfaction (proxied by Customer Loyalty and Customer Referral). Based on the finding, it was concluded that service innovativeness is a veritable tool for building loyal and satisfied customers. The researchers recommended that telecommunication firms in Port Harcourt should continually develop new and improved concepts of their services in order to gain and retain customer loyalty and referrals.

Keywords: service innovativeness, new service concept, customer interface, customer satisfaction, customer loyalty, customer referral

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1. Introduction

Nigerian telecommunication industry has witnessed tremendous transformation in the last decade and has become one of the viable industries that contribute immensely to the growth of the economy (Oyatoye, Aebiyi & Amole, 2015). As of 2018, telecoms contributed revenue of over 77.42% to the ICT sub-sector Gross Domestic Product (GDP) and 9.46% to the national GDP as a result of the deregulation which has led to an increase in active subscriptions that grew from 400,000 lines in 2001 to 145.3 million lines in May 2017, resulting in a tele-density of 0.4% and 103.82%, respectively (NCC, 2019). Many scholars have attributed this transformation to the innovativeness and adaptability of modern technologies of these private telecom firms occasioned by the current digital revolution.

According to Liao, Chang and Wu (2010), innovation has an important role to create and maintain a company's competitive advantage, especially in an era with very intense competition. This competitive pressure in the telecom industry encouraged GSM firms to continually search and research for better ways of satisfying the needs and wants of subscribers. This is achieved by offering new or improved products and services that are superior to current offerings in terms of functions and psychological satisfaction (Shqipe, Gadaf & Veland, 2013). In this regard, innovation is the key to a company's long-term success. This is true because GSM operators with the ability to continue to innovate will have the capacity to respond to challenges, both from inside and outside the firm faster and better than operators that do not have the ability to innovate (Kale & Singh, 2019).

A lot of innovations had taken place or are going on in the telecom sector. In fact, one of the common and pronounced innovations in the telecom sector in the last two decades was the privatization of the defunct NITEL in 2007, which left the sector with only privately owned GSM service providers. Currently, the on-going broadband revolution has altered the way telecom firms design and deliver services. According to Jonathan, Aeuchterlein, Philip and Weiser (2020), the major network owners that are at the forefront in the broadband revolution historically provided four distinct consumer-facing products: home telephone, mobile telephone, cable television, and internet access. Another serious service innovation that is on-going as Internet speeds and penetration increase, on both wired and wireless platforms is a new group of actors called "Over The-Top (OTT)" communications services providers. OTT service providers such as Spectranet, Smile, Cyberspace, ipNX, etc, are companies that compete with traditional GSM brands and services over the public internet from the perspective of the traditional operators (Mathenge, 2017). These OTT firms have redefined customer experiences in both messaging and voice and video calling services (Alves, Barbieux, Reichert, Tello-Gamarra & Zawislak, 2017). Other innovations in this regard according to multiple reports, are the introduction of cloud computing, 5G network & technology, Internet of Things (IoT), Artificial Intelligence (AI), cyber security upgrades, Software-Defined

Networks (SDNs), edge computing, etc (Nielsen Smartphone, 2018; Phillips Consulting, 2019; NCC, 2019).

The role of service innovation in customer commitment through the provision of improved services has translated into consumer satisfaction, loyalty and to a large extent, a prerequisite of long-term sustainability and survival, market dominance, and improvement of organisational performance (Shqipe, et al., 2013). The essence of adapting innovative service processes such as internet technology, automation of service delivery system, and toll-free communication as a strategic means of improving customer commitment, satisfaction, and loyalty have been analysed, documented, and reviewed in several literatures. Many studies have been conducted in the area of service innovation and customer commitment and its associated indices (Giannopoulou et al., 2011; Shqipe et al., 2013; Rimsha & Salman, 2019; Mahmoud, Hinson & Anim, 2018; Susanne, Anne-Laure & Petro, 2014; Cainelli, Evangelista & Savona, 2004; Shanthi, 2000). The above studies were carried out in specific industries (service and non-service industries) across diverse economies using specific variables as proxies of service innovation. For instance, Shanthi (2000) investigated the links between dimensions of innovation and organizational performance in the service industry in the United States and adopted innovation speed and innovation magnitude as dimensions of service innovation, and perceived effectiveness as a measure of organizational performance.

Also, Rimsha and Salman (2019) examined the impact of service innovation on customer satisfaction: evidence from Pakistani Banking Industry. The authors used open innovation and closed innovation as dimensions of service innovation while customer satisfaction was measured with customer loyalty and Word-of-Mouth (WOM) communication. This present research deviates from extant literature by adopting new service concepts and customer interfaces as dimensions of service innovation and uses customer loyalty and customer referral as measures of customer satisfaction. This framework has been designed and deployed in the telecommunication industry in Port Harcourt.

1.1 Statement of the Problem

The Nigeria telecommunication sector prides itself as one of the largest and leading telecom markets in Africa. The sector has contributed immensely to Nigerian's economy in the last two decades. In recent years, stakeholders in the telecom industry have been worried about various government regulatory policies that have resulted in an economic downturn; network/service-related issues; undue data or airtime charges; unnecessary or incessant SMS subscription messages; series of telecom infrastructure vandalization, increased competition by internet service providers, rapid changes in active subscribers' lifestyle, cyber-security & privacy, transparency problems, etc. The aforementioned issues, of course, call for concern among telecommunication players amidst rising competition and threats to survival.

In view of the above challenges, this study investigated whether service innovations could be a possible solution to these issues. Put in another way, could service

innovation strategies lead to enhanced customer satisfaction, commitment, and loyalty towards GSM firms? Thus, this research proposes that it is possible to tackle these challenges if adequate and up-to-date innovations that will appeal to customer needs and demands are put into perspective. Perhaps, with a well-planned service delivery system and customer interface technologies, GSM firms might be in a strategic position to satisfy and retain their customers. We are persuaded to believe that if customers are exposed to superior innovation, they will most probably, want to become committed and remain loyal to the firm. Based on these uncertainties, this study examined the relationship between service innovation and customer commitment of telecommunication firms in Port Harcourt.

1.2 Purpose of the Study

The aim of this study was to empirically investigate the relationship between service innovation and customer satisfaction of telecommunication firms in Port Harcourt. However, its specific objectives were to:

1) Investigate the relationship between the new service concept and customer loyalty of telecommunication firms in Port Harcourt.
2) Investigate the relationship between the new service concept and customer referral of telecommunication firms in Port Harcourt.
3) Evaluate the relationship between customer interface and customer loyalty of telecommunication firms in Port Harcourt.
4) Evaluate the relationship between customer interface and customer referral of telecommunication firms in Port Harcourt.

1.3 Research Hypotheses

The following propositions were tested in the course of this study:

H_{01}: New service concept has no significant relationship with customer loyalty of telecommunication firms in Port Harcourt.

H_{02}: New service concept has no significant relationship with customer referral of telecommunication firms in Port Harcourt.

H_{03}: Customer interface has no significant relationship with customer loyalty of telecommunication firms in Port Harcourt.

H_{04}: Customer interface has no significant relationship with customer referral of telecommunication firms in Port Harcourt.

Figure 1: Operational framework on service innovation and customer satisfaction
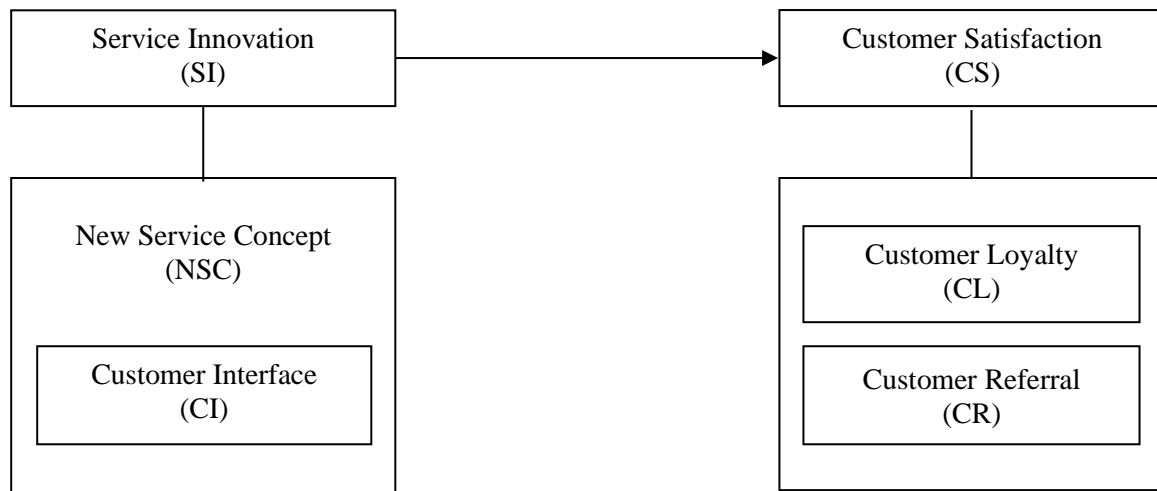
Source: Researcher's Conceptualization from Literature Review 2022; as adopted from Giannopoulou, Gryszkiewicz and Barlatier, 2011; Den Hertog, 2000.

2. Literature Review

2.1 Theoretical Framework

The theory upon which this research was anchored is the diffusion of innovation theory propounded by Rogers in 1995. It is one of the oldest theories in communication that has been successfully applied in the field of social sciences. The theory explains, how and why, through repeated messages, some individuals become aware of a message, and respond accordingly. As a construct, Rodgers (1995) explains innovation to mean an idea, practice, or object perceived as new by an individual or other unit of adoption. Thus, the use of diffusion of innovation theory explains how innovation, in this context, new business ideas, products, and services, are communicated through specific channels and in a steady manner to members of a social system. According to Boden and Miles (2000), diffusion is the process by which an innovation is communicated through selected channels over time among the members of a social system Diffusion of innovations is a theory that analyses, as well as helps to explain, the adaptation of new innovation. Effective functioning of diffusion of innovation theory is anchored on four cardinal points, namely: the social system, innovation, communication channels and time (Rogers, 2003). Calvo and Rahrig (1997) suggest the process of diffusion of innovation starts slowly and over time begins to accelerate positive communication. Once business leaders implement an online marketing strategy, they have created a social system, which supports continuous interaction with employees, stakeholders, and consumers.

2.2 Conceptualisation of Service Innovation

Innovation is burgeoning into a diverse and multidisciplinary body of knowledge spanning economics, marketing, organizational science, and management perspectives (Ostrom, Bitner, Brown, Berkhard, Smith-Daniels, Demirkan & Rabinovich, 2010; Miles, 2010). Several authors have delved into this concept but have not been able to have a

common definition of service innovation. Flikkema, Jansen and Van-der (2007) define service innovativeness as the ability to design a new service or such a renewal of an existing service that is put into practice and which provides benefit to the organization that has developed it; the benefit usually derives from the added value that the renewal provides for the customers. Innovation in services is an interplay of service concepts, service delivery systems, client interfaces, and technologies, and often entails new ways in which customers view and use the service (Den-Hertog, 2000). Service innovation is the act of offering new or improved service designed for customer optimum satisfaction. The concept is a critical antecedent to an organisation's success, which in turn is highly related to organisation's survival (Giannopoulou et al., 2011). Also, Alves et al. (2017) argue that innovative services present strategic opportunities for organisations in terms of growth in market share and expansion into new markets. Innovativeness in this context enables organisations to attain leadership positions in the market and gives new participants a chance to pick up a decent footing in the market. Service innovativeness is often referred to as the perceived newness, novelty, originality, or uniqueness of services (Blonigen & Taylor, 2010).

2.3 Customer Satisfaction

Customer satisfaction has for many years been perceived as a key determinant of loyalty and referral of other customers because customers stay or leave an organization depending on whether or not they are satisfied. The concept of customer satisfaction has been defined by many researchers. Fornell (1992) defines the concept as the post-purchase experience of a customer versus the expectation the customer had before purchase. In Mathenge's (2017) view, customer satisfaction is the evaluation of their transaction experience with a service to meet the needs of the customer. Miles (2005) opines that customer satisfaction or dissatisfaction is the derivation from the customer's experience with a service encountered and the comparison of that experience to a given standard. In many organizations, customer satisfaction has also meant that the organization had received fewer complaints, thereby reducing the cost of dealing with failure. Customer satisfaction is used as a common marketing benchmark of an organization's performance. Maintaining customer satisfaction is the key to retaining customers and building customer loyalty (Trott, 2012).

2.4 Service Innovation and Customer Satisfaction

The relationship between innovation and customer patronage has attracted a lot of scholars (Agarwal et al., 2003). The intangibility of services makes service innovation relatively more difficult to make inimitable through patent protection and to measure as its performance is mostly evaluated on the basis of user perception (Trott, 2012). Service innovation is an important means of attracting and enhancing customer patronage (Miles, 2005). In addition, a study carried out by Shqipe, Gadaf and Veland (2013) confirms that service innovation has a positive and significant correlation with customer satisfaction and customer loyalty. The finding reportedly occurs both directly and with

customer satisfaction as mediation and is in line with the research of Ameme and Wireko (2016) which states that there is a positive relationship between innovation and customer satisfaction. Sulaimon et al. (2014) also opined that the application of innovation in banking services is a good way to improve service delivery. This is because these innovations enable banks to operate more efficiently. Innovation encourages banking services to be more productive. In addition, innovations in technology such as e-banking and other digital facilities enable consumers to be able to use banking services at lower costs. This certainly encourages increased consumer satisfaction (Shqipe, Gadaf & Veland, 2013).

2.5 New Service Concept and Customer Satisfaction

The term "new service concept" was first conceived by Sasser, Olsen and Wyckoff (1978) to demonstrate the new bundle of benefits designed to improve the consumption experience of customers. The new service concept has, thereafter, been variously defined by many scholars in different ways and contexts. The service concept is used to develop new services, being the central component in designing services and the overall process of developing new service offerings and it includes all the phases from the idea to the launch (Goldstein et al., 2002).

Studies have been carried out in the area of new service concept and customer purchase behaviour, including other business outcomes. Susan, Robert, Joann and Jay (2002) examined the association between service concept and customer satisfaction. The authors report that new service concepts can be the key driver of customer satisfaction at all levels of service design planning. This indicates that, as one of the tools of service innovation, new service concept is a strategic innovative technique available for service organisations to effectively direct and dictate customer satisfaction and its associated indices (Bowers, 2000). New service concept literature has long propagated the notion that organizations should aspire to a level of service innovation that is in congruent with the levels of change and the level of complexity within the industry (Boone, 2000). It was reported that the new service concept has a huge and strategic impact on customer loyalty and patronage, which in turn leads to organizational success. Few other studies have empirically evaluated the effects of new service concepts on customer purchase behaviour. Clark et al. (2005) argue that the new service concept is significantly related to customer referral and customer loyalty and therefore conclude that the new service concept is a veritable marketing tool that has been tested in building loyal customers who could possibly spread the good news about the services to friends and families.

2.6 Customer Interface and Customer Satisfaction

Customer interface and technological options have been recognized as significant factors in service design and delivery (Sampson & Spring, 2012; Sampson & Froehle, 2006). The service innovation process involves a high degree of interactivity between the service supplier and the customer (Zeithaml & Bitner, 2003). This implies that service innovations can focus as much on these interactions as on the actual service product or process, and

this is termed as "value process" in the service innovation literature (Miles, 2005). Service innovation is centered on dynamic and relational interactions between suppliers and customers, with customers being regarded as co-creators of innovation through these interactions. Services with higher proximity and interactivity with their customers are said to present more opportunities for service innovation as the enhanced knowledge-sharing and learning processes feed into the discovery, development and delivery of new service offerings (Moeller et al., 2008). Anckar and DTncau (2002) express that customer interface is concerned with the process of designing, evaluating and implementing interactive computing systems customer use.

Prior studies have stressed the important role of customer interface as a success factor in service firms (Hipp & Grupp, 2005). According to Sampson and Spring (2012), customer interface has been recognized as a significant factor in service design, and has a significant effect on customer satisfaction. The authors further argue that customer interface is a veritable marketing tool that can be deployed by service providers to influence customer patronage and loyalty. According to Gruner and Homburg (2000), client interface-focused strategy concentrates on changes in developing a new design that clients are involved in service design, production, and consumption which enhances the chances of gaining customer loyalty, and elevates customers' convenience and satisfaction.

2.7 Empirical Review

Majekodumin and Oginni (2019) investigated the effect of innovation on customer satisfaction: an overview of insight into Nigerian service market. The objective of their study was to gain an insight into service innovation dimensions that affect customers' satisfaction in the service industry and reports that service innovation affects customer's satisfaction when customers were satisfied in relation to their expectations being met or surpassed. The study therefore recommends among others, that service-providing firms should innovate so as to meet customers' expectations and if possible surpassed them.

Rimsha and Salman (2019) examined the impact of service innovation on customer satisfaction: evidence from Pakistani Banking Industry. The purpose of their study was to appraise the linkage between service innovation (SI), customer value creation (CVC), and customer satisfaction (CS) with a specific focus on the Pakistani banking sector. A survey was carried out on 250 customers from commercial banks in Pakistan and scales were acquired from past literature. The study shows that customer value creation mediates the relationship between service innovation and customer satisfaction. Therefore, SI must create value for its customers in order to enhance customer satisfaction. Findings show that brand equity has a partial positive moderation effect on the relationship between service innovation and customer satisfaction. By relating to the findings, managers of firms should focus on service innovation that adds to or create holistic value for their customers, which ultimately increases the customer satisfaction level.

In addition, Mohammed, Ammar, Daing, Mohammed, Gamal, Noorminshah, Mohd and Sieh (2022) investigated the effect of value innovation in the superior performance and sustainable growth of the telecommunications sector: mediation effect of customer satisfaction and loyalty. The primary goal of this study was to create and validate a conceptual model of value innovation and its impact on firm performance and long-term growth by examining the mediation effect of customer satisfaction and loyalty. The empirical analysis results were based on 304 respondents who completed a paper-based survey provided to employees of Yemeni mobile service providers using a convenience non-probability sampling technique. Smart-PLS 3 was used to test the hypothesized relationships using partial least squares structural equation modelling (PLS-PM). The findings of the study empirically validate the theoretical research model, confirming the importance of the value innovation approach to achieving company performance and long-term growth by promoting customer satisfaction and loyalty.

3. Methodology

This study aimed at determining the nexus between service innovation and customer commitment of telecommunication firms in Port Harcourt. It adopted realist's ontology and objectivist epistemology. Based on the social or behavioural science doctrines, this study was concerned with quasi-experimental research and therefore used a cross-sectional survey as its research design in accessing the research elements at a point in time. This method was amenable to the use of a questionnaire or survey to elicit information from respondents.

The population consists of customers/subscribers of the four major telecommunication firms in Port Harcourt, viz: MTN, Globacom, Aitel and 9Mobile. The undergraduate students of the Faculty of Management Sciences, University of Port Harcourt were the accessible group from the large population. The Faculty Registry records showed that there were 3254 undergraduate students across the five Departments of Accounting, Marketing, Management, Hospitality Management & Tourism (HMT), and Finance & Banking. The Taro Yamane formula was applied to this population to arrive at a sample size of 400. A convenient sampling technique was then adopted whereby accessible customers were selected and contacted for the purpose of eliciting information about the variables under review.

Primary data were collected through a structured questionnaire. The instrument was structured using the 5-point Likert scale format of Strongly Agree (5-points), Agree (4 points), Not Sure (3 points), Disagree (2 points) and Strongly Disagree (1 point). The adoption of this type of scale is justified because Hair et al. (2010) opine that the 5-point Likert rating scale has proven to be suitable for self-administered surveys, as it has the capacity to measure multiple items and underlying latent constructs which can additionally account for, and isolate item-specific measurement error which ultimately leads to more accurate research findings (Hair et al., 2010). The test of hypotheses was done using Spearman's Rank Correlation Coefficient with the Statistical Package for

Social Sciences (SPSS) version 21.0. The reliability of the variable measurement items was achieved using Cronbach Alpha, and Nunnally (1978) 0.7 Alpha value recommendation was the benchmark.

4. Data Analysis and Results

Table 1: Questionnaire Distribution Results

Pattern	Number	Percentage
Copies of Questionnaire Distributed	400	100
Copies of Questionnaire Retrieved	366	91.5
Copies of Questionnaire not Retrieved	34	8.5
Copies of Questionnaire Retrieved but not Used	34	9.29
Questionnaire Retrieved and Used	332	90.71

Source: Survey data, 2022.

Table 1 illustrates the copies of the questionnaire distribution and retrieval pattern for the study. A total of four hundred (400) copies of the questionnaire were distributed. Three hundred and sixty-six (366) copies of the questionnaire representing a response rate of 91.5% were retrieved while 34 copies of the questionnaire which represent 8.5% were not retrieved. Out of the three hundred and sixty-six (366) copies of the questionnaire retrieved, thirty-four (34) copies which represent 9.29% were retrieved but not used due to certain inconsistencies, while 332 copies (90.71%) were retrieved and used for the analysis.

Table 2: Summary of Reliability Analysis

Constructs	N	No. of items	Cronbach Alpha
New Service Concept	25	4	0.880
Customer Interface	25	4	0.845
Customer Loyalty	25	4	0.819
Customer Referral	25	4	0.861

Source: Cronbach Alpha output, 2022.

Table 2 shows the Cronbach's Alpha value for the instruments on service innovation and customer satisfaction from 25 respondents in a pilot study. All Cronbach Alpha values were greater than that reliability threshold of 0.70. Thus, it can be concluded that all items for each dimension showed high stability, consistent results and satisfaction.

4.1 Test of Hypotheses
Four hypotheses were proposed and tested statistically using Spearman's Rank Correlation Coefficient.

H_{01}: New service concept has no significant relationship with customer loyalty of telecommunication firms in Port Harcourt.

Table 3: Correlation between New Service Concept and Customer Loyalty

			New Service Concept	Customer Loyalty
Spearman's rho	New Service Concept	Correlation Coefficient	1.000	.893
		Sig. (2-tailed)	.	.000
		N	332	332
	Customer Loyalty	Correlation Coefficient	.893	1.000
		Sig. (2-tailed)	.000	.
		N	332	332
**. Correlation is significant at the 0.05 level (2-tailed).				

Source: Field Survey Data, 2022, SPSS 21 Output.

Table 3 shows a Spearman Rank Correlation Coefficient is 0.893 while the p-value is 0.000. This shows that there exists a very strong and positive relationship between the new service concept and customer loyalty (CL) of telecommunication firms in Port Harcourt. Therefore, the researchers reject the null hypothesis and accept the alternate hypothesis that the new service concept has a significant relationship with customer loyalty of telecommunication firms in Port Harcourt because the probability value - sig of 0.000 is <0.05 level of significance.

H02: New service concept does not significantly relate to customer referral of telecommunication firms in Port Harcourt.

Table 4: Correlation between New Service Concept and Customer Referral

			New Service Concept	Customer Referral
Spearman's rho	New Service Concept	Correlation Coefficient	1.000	.856*
		Sig. (2-tailed)	.	
		N	332	332
	Customer Referral	Correlation Coefficient	.856*	1.000
		Sig. (2-tailed)	.000	.
		N	332	332
*. Correlation is significant at the 0.05 level (2-tailed).				

Source: Field Survey Data, 2022, SPSS 21 Output.

Table 4 reveals a Spearman Rank Correlation Coefficient of 0.856 and a probability value of 0.000. This result indicates that there is a very strong and positive relationship between the new service concept and customer referral of telecommunication firms in Port Harcourt. Therefore, the researchers reject the null hypothesis and accept the alternate hypothesis that the new service concept significantly relates to customer referral of telecommunication firms in Port Harcourt because of the PV (0.000) <0.05 level of significance.

H03: There is no significant relationship between customer interface and customer loyalty of telecommunication firms in Port Harcourt.

Table 5: Correlation between Customer Interface and Customer Loyalty

			Customer Interface	Customer Loyalty
Spearman's rho	Customer Interface	Correlation Coefficient	1.000	.861[*]
		Sig. (2-tailed)	.	
		N	332	332
	Customer Loyalty	Correlation Coefficient	.861[*]	1.000
		Sig. (2-tailed)	.000	.
		N	332	332
*. Correlation is significant at the 0.05 level (2-tailed).				

Source: Field Survey Data, 2022, SPSS 21 Output.

Table 5 reveals a Spearman Rank Correlation Coefficient of 0.861 and a probability value of 0.000. This result indicates that there is a very strong and positive relationship between customer interface and customer loyalty of telecommunication firms in Port Harcourt. Therefore, the researchers reject the null hypothesis and accept the alternate hypothesis that there is a significant relationship between customer interface and customer loyalty of telecommunication firms in Port Harcourt because the PV (0.000) <0.05 level of significance.

H04: Customer interface does not significantly relate to customer referral of telecommunication firms in Port Harcourt.

Table 6: Correlation between Customer Interface and Customer Referral

			Customer Interface	Customer Referral
Spearman's rho	Customer Interface	Correlation Coefficient	1.000	.899
		Sig. (2-tailed)	.	.000
		N	332	332
	Customer Referral	Correlation Coefficient	.899	1.000
		Sig. (2-tailed)	.000	.
		N	332	332
*. Correlation is significant at the 0.05 level (2-tailed).				

Source: Field Survey Data, 2022, SPSS 21 Output.

Table 6 shows a Spearman Rank Correlation Coefficient of 0.899 and a probability value of 0.000. This result indicates that there is a very strong and positive relationship between customer interface and customer referral of telecommunication firms in Port Harcourt. Therefore, the researchers reject the null hypothesis and accept the alternate hypothesis that customer interface significantly relates to customer referral of telecommunication firms in Port Harcourt because the PV (0.000) <0.05 level of significance.

5. Discussion of Findings

The first hypothesis (Ho1) examined the relationship between the new service concept and customer loyalty of telecommunication firms in Port Harcourt. The statement was tested using Spearman Rank Correlation Coefficient analysis tools and the result reveals

a rho value of 0.893. This indicates that the new service concept has a positive and significant relationship with customer loyalty. The second hypothesis (H02) was designed to examine the relationship between the new service concept and customer referral of telecommunication firms in Port Harcourt. In this case, the result shows a rho value of 0.856, which reveals that the new service concept also has a positive and significant relationship with customer referral. The findings corroborate the findings of Boone (2000) that the new service concept has a major and strategic impact on customer loyalty and patronage, which in turn leads to organizational success. These findings agree with those of other studies that empirically evaluated the effects of new service concept on customer purchase behaviour. For example, Clark et al. (2005) argued that the new service concept is significantly related to customer referral and customer loyalty. The third hypothetical statement (H03) investigated the relationship between customer interface and customer loyalty of telecommunication firms in Port Harcourt. The result (rho=0.861) reveals the existence of a positive and significant relationship between customer interface and customer loyalty. Lastly, hypothesis four (H04) evaluated the relationship between customer interface and customer referral and the result reveals a statistical value of rho = 0.899. This shows that customer interface significantly relates to customer referral of telecommunication firms in Port Harcourt. These findings support the findings of Sampson and Spring (2012) that customer interface has a significant effect on customer satisfaction, and that customer interface is a veritable tool that can be deployed by service providers to influence customer patronage and loyalty. Our finding also supports the finding of Gruner and Homburg (2000) that client interface-focused strategy concentrates on changes in developing a new design that clients are involved in service design, production, and consumption which enhances the chances of gaining customer loyalty, and elevates customers' convenience and satisfaction.

6. Conclusion and Recommendations

Based on the findings, the study concludes that digital-driven technologies have come to stay. Therefore, organizations that want to remain competitive will need to key into the trend and start digitalizing their business processes. Specifically, this study has found and therefore concluded that the new service concept is a veritable tool that has been tested in building loyal customers who could potentially spread the good news (WOM) about the services to friends and families and attract new customers. Thus, new service concepts are major determinants in enhancing customer engagement and e-WOM referral. Also, customer interface has become a crucial technology that brings enormous value to customers and users of a computerized devices. It has helped to facilitate business transactions and positive reviews from customers. This is because customers are disposed to systems that are user-friendly as well as entertaining.

Based on the above findings and conclusion, the study recommends that telecommunication firms in Port Harcourt should:

1) continually develop new and improved concepts of their service designs as this research has proven their strategic importance to improve customer loyalty and referral, and

2) deploy user-friendly interface technology in order to seamlessly interact with customers. This is due to the evidence that customers are more disposed to systems that are convenient and user-friendly.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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