
SERVICE INNOVATION AND CUSTOMER SATISFACTION NEXUS OF THE TRANSPORTATION SECTOR OF YENAGOA, BAYELSA STATE

Lyndon M. Etale¹ and Patricia Akpi²

¹Department of Accounting, and ²Department of Marketing, Faculty of Management
Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria

Citation: Lyndon M. Etale and Patricia Akpi (2022) Service Innovation and Customer Satisfaction Nexus of the Transportation Sector of Yenagoa, Bayelsa State, *European Journal of Logistics, Purchasing and Supply Chain Management*, Vol.10 No.1, pp.15-23

ABSTRACT: *The study was carried out with a view to provide a clear-cut understanding of the concept and principles of customer satisfaction, as it relates to service innovation of transportation firms in Yenagoa, Bayelsa State. Service innovation was used as the independent variable to ascertain the nature and strength of the relationship of its dimensions which were selected to be technological innovation, and service process innovation, and their relationship with customer satisfaction. In a bid to give the study a bearing and focus, two research questions and hypotheses were drawn from the variables, which sought to ascertain the relationship between the two dimensions of service innovation used in the study and customer satisfaction. The study was further grounded in the theory of assimilation, which is focused on the cognitive variations and dissonance experienced by customers after the consumption of a service, as a result of their pre-service encounter expectation and their actual service experience. The study thereby launched and distributed questionnaires to a total of 170 respondents from transportation firms in Yenagoa, Bayelsa State of Nigeria, and successfully retrieved a total of 160 questionnaires, which formed the basis of the data analysis and findings of the research study. The data was analyzed using the Pearson Correlation Coefficient method as a means of ascertaining the nature and strength of the relationship between the two variables. The findings of the study pointed to a significant positive relationship between the two variables, and informed the study to recommend that: firms should strive to innovate on their service to match the dynamic needs of the customers; and firms should constantly improve on the service processes to become more efficient and effective.*

KEYWORDS: customer satisfaction, innovation, process, technological

INTRODUCTION

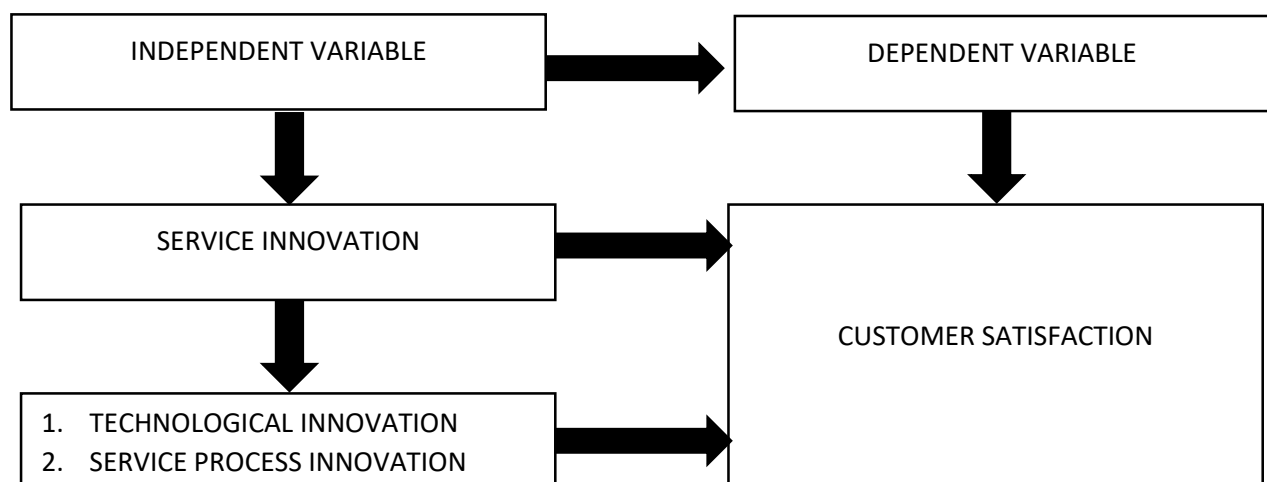
Every businessman and company are saddled with the responsibility to satisfy the needs of customers, and as such, they must strive to satisfy these dynamic and ever-changing needs of the customers in order to secure their continued existence and future (Kurniawan, Nirwanto, & Firdiansjah, 2019). This importance is attached to customer satisfaction because it determines whether a customer will become loyal, repeat purchase, or recommend the product or service offerings to others, and this has an impact on the profitability and performance of a business overtime, which will dictate the survivability and sustenance of the business in the long-run. In order to satisfy these dynamic needs and wants of customers, companies must at all times

look into the offering of new or innovated product and service offering (YuSheng & Ibrahim, 2019).

The globalization concept and continuous innovation to technology has given rise to a very competitive world where all businesses are clamoring and struggling to remain relevant regardless of the changing and dynamic needs of the customers (Liao et al., 2010), and this increased competitiveness on the global business environment has prompted businesses to constantly strive for the improvement of the product and service offerings of their company at all times (Shqipe et al., 2013). Tajeddini et al., (2006) went on to state that good performance and searching for opportunities are not enough for the continued profitability and survival of a business, but all businesses must strive for constant innovation, and this should be treated as an organizational culture.

Based on these, the study is embarked upon to understand the relationship between service innovation and customer satisfaction in the Nigerian context, in order to ascertain the validity of the past literature and researches conducted in the field.

The Conceptual Framework



Objectives

This study aimed to examine the following specific objectives: The relationship between technological innovation and customer satisfaction; and the association between service process innovation and customer satisfaction of transportation firms in Yenagoa. These objectives formed the basis of the research questions addressed as well as the hypotheses tested.

LITERATURE REVIEW

Conceptual Review

Customer Satisfaction

According to Tsai and Hsu (2014), customer satisfaction is a product of the comparison customers make between the difference of the expectation had before the purchase of a product or service offering, and the actual experience on the commencement of the consumption of the

offering purchased. They further stated that this comparison also includes past and current product and service offering consumption and purchase. This means that when a customer is evaluating the level of satisfaction derived from the consumption of a service, a comparison is made between the expectations the customer had of the service beforehand, and the actual experience met at the point of consumption in relation to the previous service experiences of the customer. The importance of customer satisfaction in the success and performance of a business overtime cannot be over emphasized as the eagerness of customers to pay more, and recommend the services of a firm, are solely dependent on the level of satisfaction derived from the consumption of the firm's offerings, and that if customers are not satisfied, the firms would lose customers overtime which will impact on their profitability and survivability (Anderson et al., 2004).

Kotler and Keller (2009) defined customer satisfaction as a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his/her expectations. It has also been defined as the feeling or attitude customers have concerning a product or service after the consumption of that offering (Wells & Prensky, 1996; Hansemark & Albinsson, 2004). These definitions were taken a step further by the position of Nemati, Khan and Iftikhar (2010) that customer satisfaction is but a term used to describe the evaluations of an offering of a business to either make the customer happy or not.

Service Innovation

Service providers are now seeing innovation as a means of strategic success, because of the financial benefits enjoyed from them (de Jong, Bruins et al., 2003). Competitive advantage is largely dependent on the value attached to it from the customer's opinion of the value or benefits derived from innovation (Chapman, Soosay, & Kandampully, 2002). The term innovation is however seen to be different from the application in the manufacturing industry (Tidd, Bessant & Pavitt, 2001). Viki, Toma, & Gons, (2017), state that the final result of innovation is the establishment of a sustainable business model where value can be provided to customers.

Schumpeter (1934) defines innovation as a new product, service, process, or idea which has been releases into the market and makes a notable profit. This definition however, limits the essentials of service innovation as it focuses primarily on the monetary basis of the service itself, and not on what it performs. Schumpeter (1934), went on to state that service innovation will ultimately lead to the establishment of new and modified industry and market operations which will prompt imitation and further innovation, and new market establishment.

Technological Innovation

Den Hertog (2010) argues that not all service innovations are tied directly to technology, but at certain situations of services, technology becomes integral. This means that although technology is paramount to today's world, it is not always a necessity for the development of an innovation in the service sector, but rather, plays a periodically dominant role in service innovation.

Service Process Innovation

CIS (2008), defined service process innovation as the implementation of new or significantly improved production process, distribution method, or support activity for services. Process innovations must be new to your enterprise, but they do not need to be new to your market. The innovation could have been originally developed by your enterprise or by other enterprises”

Den Hertog (2010), states that service process innovation is related to the internal arrangement of the organization in relation to the management of the service workers to perform and offer services to the clients. In other words, it involves the organization coming up with improved operational processes, and making sure these processes are used by the service workers in the delivery of the service to the customers.

Theoretical Review

The Theory of Assimilation

The theory of assimilation is built on the basis of the theory of dissonance developed by Festinger (1957). The dissonance theory states that there is a cognitive basis of comparison between their initial expectations and the perceived experience or utility gotten from the consumption of the product or service offering (Isac, & Rusu, 2014). Isac, and Rusu, (2014) went on to state that the discrepancy between these two variables will surely show and this is the basis of the dissonance theory. The assimilation theory however, introduces the concept of post consumption evaluation of product and service offerings (Anderson, 1973). Anderson (1973), went on to state that customers will always try to reduce the discrepancy at all times, and that this will lead them to modifying their expectations to match their experience more.

The theory of assimilation, presumes that consumers are motivated by the need for satisfaction enough to adjust their both their prior consumption expectation, and their actual consumption experience (Isac, & Rusu, 2014). Olson and Dover, (1979), took this a step further by positing that consumers distort their expectations so that they can better coincide with the product or service performance.

Empirical Review

Igwe and Kalu (2017), carried out a study on Service Innovativeness and Customer Satisfaction of Four-Star Hotels in Rivers State and came up with the finding that there is a strong and positive relationship between Service Innovativeness (service process and service outcome) and customer satisfaction. This shows that Innovativeness as in service process and service outcome are very effective marketing tool for satisfying customers of four-star hotels in Rivers State.

Rantyanti, and Halim (2020) carried out a study on the Influence of Service Innovation and Service Quality to Customer Satisfaction and Loyalty in Banking Industry in Indonesia, and concluded based on the analysis of data that there exists a positive relationship between service innovation and customer satisfaction.

Diaw and Asare (2018) embarked on a study on the Effect of Innovation on Customer Satisfaction and Customer Retention in the Telecommunication Industry in Ghana: Customers’

Perspectives, and came up with the findings that product and service innovation is believed to be the key in satisfying and retaining customers. They noted that there is a significant positive relationship was found between innovation and customer satisfaction, and also that marketing innovations introduced in recent years has been a major determinant in customer satisfaction.

Anugrah and Royani (2020) went on a study on the influence of service quality and service innovation on customer satisfaction in the city and Regency of Sukabumi, and the results and findings of the study shows a positive relationship between service innovation and customer satisfaction.

METHODOLOGY

The research is a descriptive research aimed at ascertaining the nature of the relationship between service innovation and customer satisfaction of transportation firms in Yenagoa, Bayelsa State of Nigeria. The study relied on Pearson Correlation Coefficient method as the statistical tool for data analysis assisted by the SPSS computer software. Primary data for the study was gotten from the administration of 170 copies of a structured questionnaire to a total of 170 respondents using the Pearson correlation coefficient method. The study adopted the following model which has been employed by several researchers in the past such as Etale (2020) to facilitate the analysis of data using Pearson correlation coefficient method:

$$CUSA = f (TEIN, SPIN)$$

This is expressing customer satisfaction as a function of innovations in technological and service processes for ease of correlation analysis. The above model was translated into a mathematical equation as stated below:

$$CUSA = \beta_o + \beta_1 TEIN + \beta_2 SPIN + \mu \quad (1)$$

Where:

CUSA = Customer satisfaction, the response variable,

TEIN = Technological innovation an explanatory variable and one of the measures of service innovation,

SPIN = Service process innovation the second explanatory variable and another measure of service innovation,

β_o = the constant term

β_1 and β_2 = The correlation coefficients that would determine the nature of the relationship between the service innovation and customer satisfaction,

μ = the stochastic error term

DATA ANALYSIS AND INTERPRETATION

This part of the paper highlights the analysis and findings of the of the research work based on the statistical analysis of data derived from the administration of questionnaires to a total of 170 individuals whereby a total of 160 questionnaires were recovered that formulated the basis for this analysis.

The demographics analysis turned up the following results:

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	96	62.3	62.3	62.3
	Female	64	37.7	37.7	100.0
	Total	160	100.0	100.0	

The total recovered questionnaires amounted to 160, where 96 respondents which represents 62.3% of the total fell under the confines of the male gender, whereas 64 respondents which represents 37.7% of the total fell under the female gender.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 20 Years	19	6.9	6.9	6.9
	21 - 30 years	92	63.1	63.1	70.0
	30 years and above	49	30.0	30.0	100.0
	Total	160	100.0	100.0	

The age distribution of the questionnaires recorded that 19 respondents out of the total which represents 6.9% were below the age of 20, 92 which represents 63.1% fell within the ages of 21 – 30, and 49 respondents which represents 30% were 30 years and above.

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	118	83.1	83.1	83.1
	Married	25	11.5	11.5	94.6
	Divorced	17	5.4	5.4	100.0
	Total	130	100.0	100.0	

The analysis of the data showed that a total of 118 respondents representing 83.1% of the whole were single, 25 respondents representing 11.5% were married, and 17 respondents representing 5.4% were divorced.

Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	58	40.0	40.0	40.0
	Unemployed	36	23.1	23.1	63.1
	Self-employed	32	20.0	20.0	83.1
	Employed	27	16.2	16.2	99.2
	Retired	7	.8	.8	100.0
	Total	160	100.0	100.0	

The study demographics showed that 58 (40%) respondents were students, 36 (23.1%) respondents were unemployed, 32 (20%) respondents were self-employed, 27 (16.2%) respondents were employed, and 7 (0.8%) respondent was retired.

Test of Hypotheses

H1. There is no significant relationship between Technological Innovation and Customer Satisfaction.

Correlations

		Technological Innovation	Customer Satisfaction
Technological Innovation	Pearson Correlation	1	.965**
	Sig. (2-tailed)		.000
	N	160	160
Customer Satisfaction	Pearson Correlation	.965**	1
	Sig. (2-tailed)	.000	
	N	160	160

** . Correlation is significant at the 0.01 level (2-tailed).

The analysis of the data on the relationship between Technological Innovation and Customer Satisfaction using the Pearson correlation coefficient shows a significant strong positive relationship between Technological Innovation and Customer Satisfaction. This means that there is a significant relationship between Technological Innovation and Customer Satisfaction, and that a change in the technological advancement of service firms results to a corresponding change in the level of satisfaction customer will have from the consumption of the service of that firm, and this ultimately invalidates the first null hypotheses of the research.

H2. There is no significant relationship between Service Process Innovation and Customer Satisfaction.

Correlations

		Service Process Innovation	Customer Satisfaction
Service Process Innovation	Pearson Correlation	1	.992**
	Sig. (2-tailed)		.000
	N	160	160
Customer Satisfaction	Pearson Correlation	.992**	1
	Sig. (2-tailed)	.000	
	N	160	160

** . Correlation is significant at the 0.01 level (2-tailed).

The analysis of the data generated from the questionnaires retrieved from the transportation firms in Yenagoa of Bayelsa State on the relationship between Service Process Innovation and Customer Satisfaction using the Pearson correlation coefficient, results gotten shows a significant strong relationship between the variables, where the non-existence or existence of Service Process Innovation has a direct impact on Customer Satisfaction of customers. This points to the importance and impact of service process innovation to the level of satisfaction a customer enjoys from the consumption of a service. This invalidates the second null hypotheses of the study by establishing the fact that there is a significant relationship between Service Process Innovation and Customer Satisfaction.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The study evaluates the relationship between Service Innovation and Customer Satisfaction using Technological Innovation and Service Process Innovation as dimensions of Digital Marketing, and administered questionnaires to respondents in Yenagoa, Bayelsa State of Nigeria to serve as a focus for the derivation of data upon which analysis will be done and findings drawn. The analysis of the data gotten showed that both Technological Innovation and Service Process Innovation have a strong relationship with Customer Satisfaction. The study therefore concludes that Service Innovation has a significantly positive relationship with Customer Satisfaction.

Recommendations

Based on the findings of the research, the following recommendations are given:

1. Firms strive to innovate their service to match the dynamic needs of the customers.
2. Firms should constantly improve on the service processes to become more efficient and effective.
3. Firms should use user friendly technology to adapt their services to the global community.

REFERENCES

- Anderson, E.W., Fornell, C., Mazvancheryl, S.K., (2004), Customer Satisfaction and Shareholder Value, *Journal of Marketing*, Vol. 68, pp 172–185.
- Anderson, R.E.(1973)- Consumer Dissatisfaction.: The Effect of Disconfirmed Expectancy on Product Performance, *Journal of Marketing, Research*, 10, p.38-44
- Anugrah, C.M.R., Royani, I., (2020). The influence of service quality and service innovation on customer satisfaction in the city and Regency of Sukabumi. The 3rd International Conference on Education and Social Science Research (ICESRE 2020) Universitas PGRI Semarang, Indonesia – 14 November 2020.
- Chapman, R.L., Soosay, C., Kandampully, J., (2002). Innovation in logistic services and the new business model: a conceptual framework. *Managing Service Quality: An International Journal*, 12(6), 358-371.
- De Jong, J., Bruins, A., Dolfsma, W., Meijaard, J., (2003). Innovation in service firms explored: what, how and why? *Business and Policy Research (EIM)*, Zoetermeer.
- Den H.P., (2010). Managing service innovation: firm-level dynamic capabilities and policy options. *Dialogic Innovatie & Interactie*.
- Diaw, B., Asare, G., (2018). Effect of Innovation on Customer Satisfaction and Customer Retention in the Telecommunication Industry in Ghana: Customers' Perspectives. *European Journal of Research and Reflection in Management Sciences*, Vol. 6 No. 4, pp. 15-26.
- Etale, L. M. (2020). Dangote Cement PLC capital structure and financial performance link in Nigeria. *American International Journal of Business Management (AIJBM)*, 3(8), 01-10.
- Festinger, L., (1957). *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.

-
- Hansemark, O., Albinson, M., (2004). Customer satisfaction and Retention: The experience of Individual Employees. *Managing Service Quality*, 14(40).
<http://dx.doi.org/10.1108/09604520410513668>
- Igwe, P., Kalu, S.E., (2017). Service Innovativeness and Customer Satisfaction of Four Star Hotels in Rivers State. *International Journal of Research in Business Studies and Management* Vol. 4, Iss. 3, pp. 55-65.
- Isac, F.L., Rusu, S., (2014). Theories Of Consumer's Satisfaction and the Operationalization of the Expectation Disconfirmation Paradigm. *Annals of the „Constantin Brâncuși University of Târgu Jiu, Economy Series, Issue 2*, pp. 82-88.
- Kotler, P., Keller, K.L., (2009). *Marketing management (13th end)*. New Jersey: Pearson Education Inc, Upper Saddle River MTN Annual Report 2017.
- Kurniawan, B., Nirwanto, N., Firdiansjah, A., (2019). The Effect Of Service Innovation On Customer Satisfaction Indihome Internet Provider In Central Java Through Corporate Reputation As Variable Intervening. *International Journal of Scientific & Technology Research* Vol. 8, Iss. 10, pp. 144-151.
- Liao, S.H., Chang, W.J. and Wu, C.C. (2010), "An integrated model for learning organization with strategic view: benchmarking in the knowledge-intensive industry", *Expert System with Applications*, Vol. 37 No. 5, pp. 3792-3798.
- Nemati,A.R., Khan, K., Iftikhar, M., (2010). Impact of Innovation on Customer Satisfaction and Brand Loyalty, A Study of Mobile Phones users in Pakistan. *European Journal of Social Sciences*, Volume 16, Number 2.
- Olson, J., Dover, P. (1979), Disconfirmation of consumer expectations through product trial. *Journal of Applied Psychology*: Vol.64, pp.179-189.
- Rantianti, V.N.P., Halim, R.E., (2020). The Influence of Service Innovation and Service Quality to Customer Satisfaction and Loyalty in Banking Industry. *European Journal of Molecular & Clinical Medicine*, Vol. 07, Iss. 01, pp. 4026-4038.
- Schumpeter, J., (1934). *The Theory of Economic Development (New edition 1981)*. New York: Routledge
- Shqipe, G., Gadaf, R., Veland, R. (2013), "Innovation strategies and competitive advantage", *Modern Economics: Problems, Trends, Prospects*, Vol. 8 No. 1, pp. 10-26.
- Tajeddini, K., Trueman, M. and Larsen, G. (2006), "Examining the effect of market orientation on innovativeness", *Journal of Marketing Management*, Vol. 22 Nos 5/6, pp. 529-551.
- Tidd, J., Bessant, J., Pavitt, K., (2001). *Managing Innovation - Integrating Technological, Market and Organisational Change*. John Wiley & Sons, 2nd edition.
- Tsai, K.H., Hsu, T.T., (2014). Cross-Functional Collaboration, Competitive Intensity, Knowledge Integration Mechanisms, and New Product Performance: A Mediated Moderation Model. *Industrial Marketing Management*, 43, 293-303.
<https://doi.org/10.1016/j.indmarman.2013.08.012>.
- Viki, T., Toma, D., & Gons, E. (2017). *The corporate startup. How established companies can develop successful innovation ecosystems*.
- Wells, W., & Prensky, D. (1996). *Consumer Behavior*. John Willy and Sons, USA,
- YuSheng, K., Ibrahim, M., (2019) "Service innovation, service delivery and customer satisfaction and loyalty in the banking sector of Ghana", *International Journal of Bank Marketing*.