

CUSTOMER INTERACTION AND OPERATIONAL PERFORMANCE OF COURIER SERVICES FIRMS IN RIVERS STATE, NIGERIA**USIKOROMOGHA Boloubele¹ OKWANDU Gabriel A.² IKEGWURU Mac-Kingsley³**^{1,2} Department of Marketing, Faculty of Administration and Management
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Abstract

This study investigated the relationship between customer interaction and operational performance of courier services firms in Rivers State. Customer interaction was the predictor variable, while operational performance was the criterion variable with cost minimization, delivery speed and flexibility used as its measures. The study adopted a descriptive survey research design with a correlational method of investigation. The population of the study consisted 13 courier services firms in Rivers State. The study adopted a census. 4 questionnaire were given to managers (operations, logistics, customer relation and delivery). The Pearson's Product Moment Correlation was used to test the hypotheses with the aid of the Statistical Packages for Social Science, version 23.0. The study found that customer interaction has positive and statistically significant relationship with measures operational performance. The therefore concluded that a significant positive relationship exists between customer interaction and operational performance of courier services firms in Rivers State; and recommends that courier services firms in Rivers State that intend to enhance their operational performance in terms of cost minimization, delivery speed, and flexibility should adopt and encourage interaction with customers.

Keywords: Cost Minimization, customer interaction, delivery speed, flexibility, operational performance**Introduction**

Courier service firms have experiences significant transformation in recent years, driven by rapid growth of e-commerce and increasing demand for faster and more reliable service delivery (Dar et al., 2023). An efficient logistics sector ensures smooth flow of goods and services between regions, thereby promoting intra-country trade. Apart from the economic importance, the logistics industry provide jobs in transportation, warehousing, distribution and related services (Liao & Keng, 2013). In a country like Nigeria with a large population and high unemployment rates, the logistics sector offers opportunities for livelihoods and income generation, contributing to poverty reduction and social stability (Menor & Roth, 2008).

Competition in the logistics industry is heightened by advances in technology, globalization, and changing consumer preferences (Khakdaman et al., 2023). The industry has sought to develop and implement service innovation in response to global competition, structural change, deregulation, new technologies and increasing expectations of customers (Schutz, 2016). In addition, customer interaction has emerged as a crucial strategic imperative for logistics firms seeking enhanced operational performance (Gebauer et al., 2005).

Customer interaction encompass direct face-to-face engagements and indirect technology-mediated communications (Mario et al., 2017). This view of customer interaction emphasize the bidirectional nature of interactions and impact of exchange on service experience (Bitner et al., 2008). Understanding the relationship between customer interaction and operational performance is crucial for firms (Acar, 2020). By embracing customer interaction, logistics firms can enhance flexibility, delivery speed and minimize cost, thereby enhancing their overall operational efficiency and profitability (Khakdaman et al., 2023).

Despite the role customer interaction play, there remains a dearth of study examining its relationship with operational performance, particularly within the context of courier service

firms Rivers State. Thus, this study sought to contribute to knowledge in marketing by probing the nexus between customer interaction and operational performance of courier services firms in Rivers State. The study is guided by the conceptual framework in Fig.1.

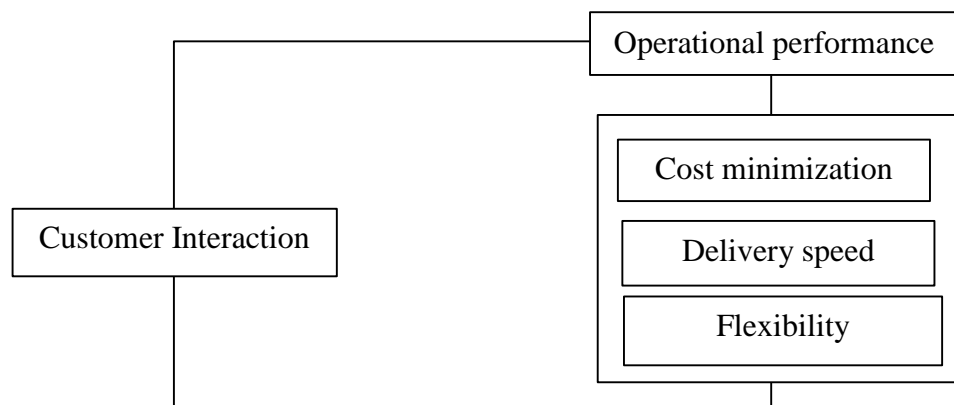


Fig 1: Conceptual framework of relationship between customer interaction and operational performance of courier services firms in Rivers State.

Literature Review

Theoretical foundation of the study: Social exchange theory

This study is premised on social exchange theory (Homans 1958), which viewed social exchange as exchange of tangible or intangible assets between two or more parties (Palmatier, 2008). Social exchange theory (SET) assumes that social behavior is the outcome of an exchange process whose aim is benefits and costs maximization (Palmatier, 2008). SET posits that people always take the benefits or rewards and minus the costs so as to determine how much a relationship is worth.

Thus, SET suggests that when benefits outweigh costs, a positive relationship exists, but when costs outweigh benefits, there exists a negative relationship. SET provides a framework for understanding the connection between customer interaction and operational performance. Individuals aspire to minimize costs and maximize rewards, and therefore have the likelihood of developing relationships with other people on perceived or expected possible outcomes.

Customers tend to engage in a particular behaviours when they perceive that the reward of engaging in a particular behavior is greater than its cost. As firms interact with customers, it provides them with access to innovation-relevant knowledge, which in turn boost operational performance in terms of minimizing cost, enhancing delivery speed and increasing flexibility.

Customer interaction

Interaction is an essential element of the marketing process; and companies frequently seek to engage in positive interaction with customers (Ateke & Kalu, 2019). Such interactions enable firms to understand and serve customers better. Customer interaction communication between a firm and its customers, geared towards addressing the demands of customers and ensuring that their demands are met through the supply of product (Mario et al., 2017). Companies often hire representatives who are trained to provide such customer interactions. A firm that understands customers better, stands a better chance of serving them better and attaining an edge in the market.

So el al. (2012) points out that interaction is an essential aspect of marketing, usually acknowledged in literature of customer engagement and it entails customers' online and offline involvement with a firm's offering. Vivek (2009) argue that interaction involve sharing opinions,

ideas and feelings regarding the experience with offerings. It an essential behavioural dimension of customer engagement. Schutz (2016) claim that all customers have a need for interaction.

Operational performance

Operational performance refers to measurable aspects of outcomes of a firm's processes, such as reliability, production cycle time, and inventory turn-over. Operational performance affects business performance measures like market share and customer satisfaction (Salem, 2013). According to Henríquez-Machado et al. (2021), operational performance refers to improving efficiency and effectiveness across economic, environmental and social aspects.

Operational performance equals the efficiency and effectiveness with which a firm utilizes its resources to produce goods and services in accordance with predetermined objectives (Slack, 2015). It involves the ability of an organization to meet or exceed customer expectations consistently by delivering superior products in a timely, and cost-effective manner.

Operational performance includes the achievement of strategic objectives through effective coordination of operational activities that results in superior value for stakeholders (Jabbour et al., 2013). Operational performance touches on several aspects of companies'. However, this study adopted cost minimization, delivery speed and flexibility to measure operational performance (Hwang et al., 2014).

Cost minimization

Cost minimization has become one of the primary ways organizations compete in the global economy. Hence, cost reduction has continued to occupy the minds of managers of firms (McWatters et al., 2001). Cost minimization is a corrective function that encompass cutting down costs, and improve profits (Mandy, 2017). It starts when cost control ends and considers that no cost is at its optimum level (Martínez-Sesmero et al., 2022).

According to Adeniyi (2001), cost minimization starts with an assumption that current cost levels are too high even though cost control may be good and the is organization experiencing high-efficiency levels (Egbide et al., 2019). Cost minimization therefore, involves analyzing different cost components (labor, materials, and overhead) for adequate resource allocation and enhanced efficiency (Mandy, 2017). By focusing on minimizing costs without compromising quality or effectiveness, organizations improve their operational performance and make informed decisions regarding resource utilization (Korolkov, 2022).

Delivery speed

Delivery speed is a value-added service that denotes the period between the placement of an order and actual delivery of the order (Wisner et al., 2014). According to Olise and Ojiaku (2018), service delivery refers to the fulfillment of customers' orders and at the minimum cost. It involves meeting customers' expectations concerning order fulfillment, quicker response to customer requirements and ability to meet unique and special requests of customers (Nwulu & Nwokah, 2019).

Delivery speed has emerged as a crucial factor influencing purchaser behaviour in e-trade (Poel & Buckinx, 2005). With increase in online purchasing, customers have grown reliant on timely shipping offerings (Kaipia, 2008). Delivery speed plays an important role in shaping consumer perceptions and purchase intentions. Liang and Huang (1998) reveals that faster delivery is associated with higher levels of consumer satisfaction and repeat purchases.

Flexibility

In the context of service delivery, flexibility is the ability to adjust or modify service capacity to deliver customized and more satisfactory service (Aranda, 2003). As a measure of operational

performance, flexibility involves adapting strategies for accessing markets and better meeting needs of customers (Chrysostomou et al., 2023).

Services have to be designed to be flexible to timely and adequately meet individual customers' requirements (Alolayyan & Alyahya, 2023). Flexibility is particularly important in the increasingly dynamic business environment characterized by intense, global competition, shorter product life cycles, increased technological innovation, and time-sensitive customer demand (Aranda, 2003).

Customer interaction and Operational Performance

Ateke and Kalu (2019) examined the link between positive brand-customer interaction and customer citizenship behaviour. The study observed that positive brand-customer interaction has positive and statistically significant correlation with customer citizenship behaviour. In the study of Olaf et al. (2016), which focused on effect of interactions on customer relationship management in Germany; it was found that social media interactions influence customer relationship management.

Mario et al. (2017) investigated effects of customer interactions on product innovation in a hybrid offerings context. The results of the study suggest that providers of hybrid offerings could foster innovation performance by encouraging customer interaction. Similarly, Soto-Acosta et al. (2018) examined effect of internet-based innovation on business value; and observed that web infrastructure is not significantly related to business value, while on the contrary Internet-based new customer interaction has a positive significant impact on business value.

Also, Pimpan et al. (2018) probed the relationship between dynamic service innovation strategy and profitability of hotels in Thailand. The results indicated that customized interaction is key to service innovation and profitability; while Chinchang (2020) examined service innovation capability and sustainable firm performance and reveal that new customer interaction had positive influence on competitiveness. Based on the foregoing, the following hypotheses were formulated:

H₀₁: There is a significant relationship between customer interaction and cost minimization of courier services firms in Rivers State

H₀₂: There is a significant relationship between customer interaction and delivery speed of courier services firms in Rivers state.

H₀₃: There is a significant relationship between customer interaction and flexibility of courier services firms in Rivers State.

Methodology

The study adopted a descriptive survey research design with a correlational investigation method. The population of the study consisted 13 courier service firms. In lieu of the small population size, a census method was adopted. However, 4 respondents (operation manager logistics supervisor, customer relation officer, delivery supervisor) were drawn from each of the 13 firm. Questionnaire was used as the instrument to collect primary data from respondents. The instrument was subjected to academic scrutiny to evaluate its face validity; while its reliability was determined using Cronbach's Alpha reliability test with a threshold of 0.70 set by Nunally (1978) (see Table 1). The data was analyzed using descriptive statistical tools (mean, standard deviation, frequency tables, and bar charts to present the data) at the univariate level of analyses, while the Pearson's Product Moment Correlation was used to test the proposed hypotheses and the bivariate level of analyses. All the statistical analyses was performed using the Statistical Package for Social Sciences (SPSS) version 23.0.

Table 1: Reliability Analysis of Study Variables

S/N	Variables	Number of Items	Cronbach's Alpha Coefficients
1	Customer Interaction	4	0.977
2	Cost Minimization	4	0.768
3	Delivery Speed	4	0.900
4	Flexibility	4	0.960

Source: SPSS Output from Survey Questionnaire (2024)

Data Analysis and Results**Table 2: Descriptive Statistic of Customer interaction**

	N	Sum	Mean	Std. Deviation	Variance
To what extent does your organization implement customer feedback mechanisms to improve service interactions	47	196	3.38	1.282	1.643
To what extent does your organization train employees to deliver high-quality customer interactions	47	207	3.57	1.272	1.618
To what extent does your organization leverage technology to enhance the customer interaction experience	47	240	4.14	.576	.332
To what extent does your organization personalize customer interactions to meet individual customer needs and preferences	47	243	4.19	.687	.472
Valid N (listwise)	47				

Source: SPSS Output, 2024.

Table 2 depicts high mean scores of the questionnaire items ranging over 3.00, this means that greater number of the respondents agreed and strongly agreed to the research question with respect to customer interaction. However, it can be seen that question 4 which sought to determine the extent to which courier services firms in Rivers State personalize customer interactions to meet individual customer needs and preferences, has the highest mean score of 4.19. This shows that question 4 has the strongest influence on the variables.

Table 3: Descriptive Statistic of Cost minimization

	N	Sum	Mean	Std. Deviation	Variance
To what extent have you been able to reduce overall operational costs in your processes	47	211	3.64	1.471	2.165
To what extent have you been able to minimize waste and inefficiencies in your operations	47	219	3.78	1.415	2.002
To what extent have you been able to achieve cost savings through process improvements or innovations	47	225	3.88	1.452	2.108
We make the right material, resource and human resource input to sustain our results	47	220	3.79	1.411	1.992
Valid N (listwise)	47				

Source: SPSS Output, 2024.

Table 3 depicts high mean scores of the questionnaire items ranging over 3.00, this means that greater number of the respondents agreed and strongly agreed to the research question with respect cost minimization. However, it can be seen that question 4 which sought to determine the extent to which courier services firms in Rivers State make the right material, resource and

human resource input to sustain our results, has the highest mean score of 3.88. This shows that question 4 has the strongest influence on the variables.

Table 4: Descriptive Statistic of Delivery Speed

	N	Sum	Mean	Std. Deviation	Variance
To what extent have you been able to shorten your delivery times to customers	47	227	3.91	1.393	1.940
To what extent have you been able to meet or exceed delivery speed expectations	47	223	3.84	1.399	1.947
To what extent have you been able to improve the speed of order processing and fulfillment	47	242	4.17	.596	.356
To what extent have you been able to consistently deliver products or services on or before the promised time	47	244	4.21	.695	.483
Valid N (listwise)	47				

Source: SPSS Output, 2024.

Table 4 depicts high mean scores of the questionnaire items ranging over 3.00, this means that greater number of the respondents agreed and strongly agreed to the research question with respect delivery speed. However, it can be seen that questions 4 which sought to determine the extent to which courier services firms in Rivers State have been able to consistently deliver products or services on or before the promised time, has the highest mean score of 4.21 respectively. This shows that questions 4 has the strongest influence on the variables.

Table 5: Descriptive Statistic of Flexibility

	N	Sum	Mean	Std. Deviation	Variance
To what extent have you been able to adapt to changes in customer demand quickly	47	221	3.81	1.162	1.349
To what extent have you been able to offer customized solutions to meet varying customer needs?	47	211	3.64	.912	.832
To what extent have you been able to handle fluctuations in order volumes without sacrificing performance	47	226	3.90	.307	.094
To what extent have you been able to implement new processes or technologies to enhance flexibility?	47	203	3.50	1.096	1.202
Valid N (listwise)	47				

Source: SPSS Output, 2024.

Table 5 depicts high mean scores of the questionnaire items ranging over 3.00, this means that greater number of the respondents agreed and strongly agreed to the research question with respect flexibility. However, it can be seen that questions 3 which sought to determine the extent to which courier services firms in Rivers State been able to handle fluctuations in order volumes without sacrificing performance, has the highest mean score of 3.90. This shows that question 3 has the strongest influence on the variables.

Table 6: Relationship between Customer Interaction and Measures of Operational Performance

		Customer interaction	Cost minimization	Delivery Speed	Flexibility
Customer interaction	Pearson Correlation	1	.575**	.782**	.478**
	Sig. (2-tailed)		.000	.000	.000
	N	47	47	47	47
Cost Minimization	Pearson Correlation	.575**	1	.842**	.821**
	Sig. (2-tailed)	.000		.000	.000
	N	47	47	47	47
Delivery Speed	Pearson Correlation	.782**	.842**	1	.835**
	Sig. (2-tailed)	.000	.000		.000
	N	47	47	47	47
Flexibility	Pearson Correlation	.478**	.821**	.835**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	47	47	47	47

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

Source: SPSS Output, 2024.

Table 6 shows a correlation coefficient of 0.575** between customer interaction and cost minimization, indicating a moderate significant relationship between the variables. The probability value (0.000) is less than the critical value (0.05), this shows that the relationship between customer interaction and flexibility is statistically significant. This means that change in level of customer interaction among courier service firms in Rivers State results in change in cost minimization. Thus, the null hypothesis which states that there is no significant relationship between customer interaction and cost minimization of Courier services firms in Rivers State was rejected.

Table 6 also provides a correlation coefficient of 0.782** between customer interaction and delivery speed; and a probability value of 0.000 which is less than the critical value of 0.05. These statistics show that a strong positive connection exists between customer interaction and delivery speed, and that this relationship is statistically significant. Based on these facts, the null hypothesis, that there is no significant relationship between customer interaction and delivery speed of Courier services firms in Rivers State was rejected.

Furthermore, Table 6 shows a correlation coefficient of 0.478** between customer interaction and flexibility of courier service firms in Rivers State. This indicates a moderate relationship between customer interaction and flexibility. The probability value (0.000) of the correlation coefficient is less than the critical value (0.05), suggesting that the relationship between customer interaction and flexibility of courier service firms in Rivers State is statistically significant. Thus, the null hypothesis that there is no significant relationship between customer interaction and flexibility of courier services firms in Rivers State was rejected.

Discussion of Findings

This study examined the connection between customer interaction and operational performance of courier services firms in Rivers State. The statistical analysis conducted in the study reveals a moderate positive and statistically significant relationship between customer interaction and cost minimization; a strong positive and statistically significant relationship between customer interaction and delivery speed; and a moderate positive and statistically significant relationship between customer interaction and flexibility.

These findings cohere with the findings of Olaf et al. (2016) that social media interactions

influence customer relationship management; and that of Mario et al. (2017) customer interaction drives innovation performance of good and services. Also, the current findings align with the view that internet-based innovation impact business value, through Internet-based customer interaction (Soto-Acosta et al., 2018).

Similarly, the present findings support the view that positive customer-firm interaction influence customer citizenship behaviour positively (Ateke & Kalu, 2019); and that customer interaction improves service innovation and profitability (Pimpan et al., 2018). The findings also substantiate the report of Chinchang (2020) customer interaction has positive influence on competitiveness of firms.

Conclusion and Recommendations

This study examined the relationship between customer interaction and operational performance of courier services firms in Rivers State. Based on the findings, the study concludes that a significant positive relationship exists between customer interaction and operational performance of courier services firms in Rivers State. That is to say that in the context of courier services firms in Rivers State, operational performance measured in terms of cost minimization, delivery speed and flexibility depends on customer interaction. The study therefore recommends that courier services firms in Rivers State that intend to enhance operational performance should adopt and encourage interaction with customers.

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