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## SUPPLY CHAIN MANAGEMENT PRACTICES AND OPERATIONAL PERFORMANCE OF LOGISTIC COMPANIES IN RIVERS STATE

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### ABSTRACT

*This study examined the relationship between supply chain management practices and the operational performance of logistic companies in Rivers State. Contingency theory and resource-based view theory were adopted as the theoretical framework. The study focused on staff with full employment in logistic companies in Rivers State. Preliminary investigation revealed a total of two hundred and seventy-one (271) owners and operators of logistics companies in Rivers State. The determination of the sample size was done using the Krejcie and Morgan (1970) table and the result was 159 members of staff. Pearson Product Moment Correlation Coefficient statistical tool and simple regression analysis were used to analyze the hypotheses with the aid of Statistical Packages for Social Sciences (SPSS) version 22. The findings revealed a positive and strong relationship between the variables i.e., (customer relationship, information sharing, and operational performance of logistic firms in River's state). It was recommended that logistic companies should develop cordial relationships with their customers, and ensure free flow of information among different units and partners. This will enhance efficiency in terms of the cost of operating the business.*

### KEYWORDS

*Supply Chain, Information sharing, Customer relationship.*



## Introduction

In the current business world, competition becomes fierce among the organizations as well as the challenges involved with getting a product and service to the right place at the right time at the right price. To counter these challenges, Supply Chain Management (SCM) is a key concept to manage firm's supply chain partner effectively and build long-term partnerships (Fynes et al., 2008; Sambasivan, et al., 2013). Supply chain management has been defined by The Global Supply Chain Forum as ". . . the incorporation of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders" (Lambert et al., 1998). Due to complexity in supply chain, firms are facing problems in availing products to market quickly, in the right quantities, and in the right locations (Closs et al., 2008). Thus, organizations began to realize that it is important to improve efficiencies in its day-to-day operations to remain competitive. The goal of SCM is to ensure consistent flow of information and material in the entire supply chain to provide an edge over its competitor (Childhouse & Towill, 2003).

The concept and practices of SCM have received increasing attention from managers, academicians, and consultants (Hamister, 2012). The understanding and execution of supply chain management (SCM) practices played an important role for organizations to remain competitive and for enhancing profitability in the increasingly competitive global marketplace (Childhouse & Towill, 2003). The implementation of SCM practices is not limited to manufacturing firms only (Li et al., 2006) but also has been widely employed in the retail sector (Randall et al., 2011).

Supply Chain Management (SCM) practice enables world's leading organizations to re-align their supply chains to the flat world paradigm by providing functioning solutions for company needs in supply and demand planning and forecasting, sourcing and procurement, supply chain execution and enterprise asset management. Now-a-days many organizations become a part of at least one supply chain. They have to perform equally well, in order to achieve better performance. It also requires elimination of interfacing between many techniques across applications and individual departments. The supply chain is the flow of information, fund, and material through a manufacturing company, from the supplier to the customer. Traditionally the flow of material has been considered only at an operational level, but this approach is no longer adequate. It is now essential for businesses to manage the supply chain in order to improve customer service, achieve a balance between costs and services and thereby give the company a competitive advantage.

Supply chain management is the interconnectedness of facilities that form the process of acquiring and transforming raw materials into finished goods and deliver them to end users through an effective distribution system and involves, establishing a formidable strategic partnership, customer relationship and promoting information sharing (Childhouse, & Towill, 2003). Consumer relationship is referred to as the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction (Tan, Kanna, & Handfield, 1998; Claycomb, Droge, & Germain, 1999). Committed consumer relationships give rise to sustainable advantage because of their inherent potential to pose a barrier to competition (Day, 2000). The growth of mass customization and personalized service is leading to an era in which relationship management with consumers is becoming crucial for corporate survival (Wines, 1996). This suggests that good relationships with supply chain members, including

consumers, are needed for successful implementation of SCM programmes (Moberg, Cutler, Gross & Speh, 2002).

Information sharing refers to the extent in which critical and proprietary information is communicated to one's supply chain partner/customer (Monczka, Petersen, Handfield, & Ragatz, 1998). Shared information can vary from strategic to tactical in nature and from information about logistics activities to general market and customer information (Mentzer, Min & Zacharia, 2000). Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data at every node within the supply chain (Turner, 1993; Balsmeier, & Voisin, 1996; Towill, 1997; Childhouse, & Towill, 2003). By taking the data available and sharing it with other parties within the supply chain, information can be used as a source of competitive advantage (Novack, Langle & Rinehart, 1995; Jones, 1998).

In the last few decades, there has been an upsurge in the number of published works on the concept of operational performance (for example Bayo-Moriones & Merino-Díaz de Cerio, 2002; Vachon & Klassen, 2008; Kumar & Kushwaha, 2018). The concept of operational performance has become a regular topic of discussion in many academic fora and gatherings since it was first introduced and used by Venkatraman and Ramanujam in 1986.

A firm's operational performance contributes immensely to shareholders' wealth, business growth, profitability, customer satisfaction, and helps in amplifying internal business processes and other activities aimed at furthering and improving innovativeness and creativity in the organisation (Bayo-Moriones & Merino-Díaz de Cerio, 2002). Thus, satisfactory operational performance could ultimately lead to higher future economic gains for organisations and their stakeholders.

Several empirical studies have investigated the relationship between SCM practices and business performance (for example, Robinson & Malhotra, 2005; Fantazy, Kumar, & Kumar, 2010; Shobayo, 2017), among others. However, there are some noticeable gaps in the literature pertaining to the antecedents and consequences of supply chain management.

Firstly, most of the studies in extant literature examined performance at the strategic level (Fantazy, Kumar, & Kumar, 2010), thus neglecting the operational performance aspect of organisations, for example quality of service, flexibility, and cost of service. Secondly, there is scarcity of quantitative works that examined the relationship between the study variables (Supply Chain Management Practices and Operational Performance) in the Nigerian work environment, especially in the logistic firms. The amount of literature in this domain focuses on manufacturing firms and Small and Medium Scale Enterprises (SMEs) (for example, Robb, Xie, et al., 2008; Bayraktar, Demirbag, et al., 2009; Lawer, Amaning, Asare & Acquah, 2014; Shobayo, 2017). Moreover, to the best of the researcher's knowledge, there is a shortage of research on operational performance in which quality of service; flexibility and cost of service were used as measures, especially in the Nigerian logistic companies.

From the foregoing, it is believed that useful information can be derived from the study by adopting various dimensions of SCM Practices and measures of operational performance. Therefore, this study is set to examine the relationship between supply chain management practices and operational performance of logistic companies in Rivers state.

### Statement of the Problem

Supply chain is one of the areas identified by researchers as having a great potential to boost efficiency and reduce costs of most firms especially the logistic firms. Burgress Singh and Koroglu, (2006) highlighted the importance of SCM but noted there is little research done on supply chain practices. Any inefficiency incurred by any of the supply chain members can impact on the operational performance of the whole chain. This is because inefficiencies add to the company costs in the long run. Timely exchange of information in the SCM at the right time helps to improve the performance of all the members in the chain (Chopra & Meindi, 2010) by reducing variations and shifts in inventory and customer demands.

Information is a key resource in supply chain management and coordination hence the need for it to be managed so that all the supply chain teams can achieve their objectives. Researchers have examined the relationship between SCM practices and firm performance; they conclude that SCM practices have a positive impact on firm performance at the operations level, as well as at the business level (Cheng et al., 2012). Suhong, Ragu-Nathan, and Subba Rao, (2014) examined the effect of supply chain management practices on competitive advantage and organizational performance. The results indicate that consistent application SCM practice can lead to improved competitiveness and organizational performance.

Fazila (2013) sought to explain the relationship between supply chain management (SCM) practices and supply chain responsiveness (SCR) in relation to competitive advantage (CA). The results indicated a positive relationship between SCM practices, SCR, and competitive advantage. Supalak (2010) examined supply chain management practices on the hotel food supply chains in South England. It was established that higher levels of service delivery translated to more flexibility regarding supplier selection at property level. It also revealed that service delivery will lead to more flexible and centralized sourcing techniques.

Locally, studies have also been carried out on supply chain management. Shalakh (2015) in his research on innovative supply chain management practices of oil marketing companies in Kenya revealed that the key challenges facing oil marketers in the implementation of innovative supply chain management practices were lack of proper training, failure to invest in modern technologies and lack of commitment by the top management. Miyare (2014) studied supply chain management practices and organizational performance of Kenolkobil limited. The findings revealed a strong relationship with their organizational performance.

Barua (2013) investigated the challenges facing oil marketing companies in the application of supply chain management principles. The study found that the challenges were as follows: transportation, equipment, communication, supplies innovation and finances. Mogire (2011) investigated the supply chain management practices in five-star hotels in Kenya and established that the major hindrances to be collaboration during planning, lack of understanding of the SCM concept. The study also established that there were strategic relationships with suppliers and customers within the hotel industry. It did not however reveal about long term relationships between suppliers and clients. Even though the study shows that five-star hotel organisations have adopted supply chain practices in their operations they have not fully embraced the practices.

Mwirigi (2007) studied the green supply chain management concept in relation to manufacturing firms in Kenya. The study looked into four areas of green supply chain management practices

namely, green purchasing, design for environment, reverse logistics and green marketing. The research established that green supply chain management practices contributed to reduction of environmental challenges a proportion which is contributed by manufacturing firms. The above studies however failed to demonstrate the link between supply chain management practices and operational performance of logistic companies in the transportation sector in Rivers state Nigeria. This study therefore sought to explain the existing knowledge gap by answering the following questions: What are the supply chain management practices implemented by logistics companies in River's state? What is the effect of these SCM practices on the operational performance of logistic firms in River's state?

### Research Objectives

The research had the following main objectives:

- i. To determine the relationship between customer relationship and operational performance of logistic firms in River's state
- ii. To establish the relationship between information sharing and operational performance of logistic firms in River's state

### Literature Review

#### Concept of Supply Chain Management

A supply chain refers to the organization's providers and distributors of goods, within their factories and warehouses that handle various tasks such as procurement, inventory control, production, distribution, and delivery (Stadtler & Kilger, 2008). Essentially, as Kandagatla (2005) states, a supply chain is a sequence of shared operations and associations between Common Processors, and it entails all aspects of getting raw materials, turning them into finished products, and delivering them to the final customer.

These processes need not occur at a single company. In fact, a supply chain "consists of two or more companies connected" via the flow of resources, information, and finances (Stadtler, 2008). The connected companies serve each other by dividing the tasks of producing parts and components, producing finished products, processing logistics services, and distributing to the final customer. Thus, several companies, with differing functions and purposes, must collaborate in order for the supply chain to operate fluidly (Chance, 2010). From another perspective, these associated companies may be seen as a processing chain, or a network of companies connecting their upstream and downstream operations and activities, for the central purpose of delivering value to the end consumer (Santos, 2006).

With that in mind, supply chain management (SCM) serve the business functions of producing enhanced performance and optimal supply chain decisions in a given organization, internally and externally (Rotimi et al., 2017). It may be seen as assimilating the supplier's crucial business procedures in service of the final user, so as to provide added value through products, services, and information to all beneficiaries involved (Lambert, García-Dastugue&Croxtton2005).

#### Supply Chain Management Practices

In exploring the various scopes of SCM practices, the researcher found much scientific research that describes the multiplicity and diversity of these activity dimensions, which may result from combining theoretical and practical applications in the supply chain. These dimensions may involve

the establishment of partnerships with suppliers, and the deliberate application of outsourcing, informational interactions, and pressure cycle times (Alvarado & Kotzab, 2001). They concern the practices of quality assurance, procurement, and customer relationship building, which may be convened using a common inter-organizational pivot system a system that may, among other things, involve the disposal of excess inventory through postponements. Put simply, the scopes of SCM comprise a set of activities carried out by an organization in order to augment the efficiency and efficacy of its supply chain management practices (Alvarado & Kotzab, 2001; Li, Ragu-Nathan, Ragu-Nathan, Rao & Subba, 2006).

**Customer Relationship:** All those practices which are employed by an organization for improvement in customer satisfaction, building a long-term relationship and handling customer complaints efficiently come under customer relationship. Customer expectations are very dynamic in nature and organizations need to assess them regularly and adjust their operations accordingly. The existence of good relational information process affects the satisfaction level of customers and their firms' performance is better than those which are not having it (Jayachandran et al., 2005).

A company's customer relations practices can affect its success in managing the supply base as well as its performance (Scott & Westbrook, 1991). The success of supply chain management depends on the integration of downstream and upstream members of the supply chain. Each member in the supply chain is a supplier as well as a customer. When a customer-oriented strategy is implemented simultaneously with effective supply chain management practices, it can produce a competitive edge in a number of different ways. These include increases in productivity, reductions in inventory and cycle time, increased customer satisfaction, market share, and profits. However, there is little empirical evidence in the literature linking customer relations practices and performance to support the conceptual foundation. Tan et al. (1999), conducted a regression analysis and found that customer relations practices directly and positively impact corporate performance.

Customer relationship focused towards knowing about customers to generate products or services for the satisfaction of customer needs (Tanriverdi & Venkatraman, 2005), which in turn improve buyer-supplier relations. For the supply chain partners who are in regular touch with each other and share the information on a regular basis as a single entity. They can understand the needs of the end customer better and this enables them to become responsive towards market changes quickly (Stein & Sweat, 1998). This responsiveness brings performance improvement in the organization. Thus, we propose the following hypothesis:

**H0:** There is no positive relationship between customer relationship and operational performance.

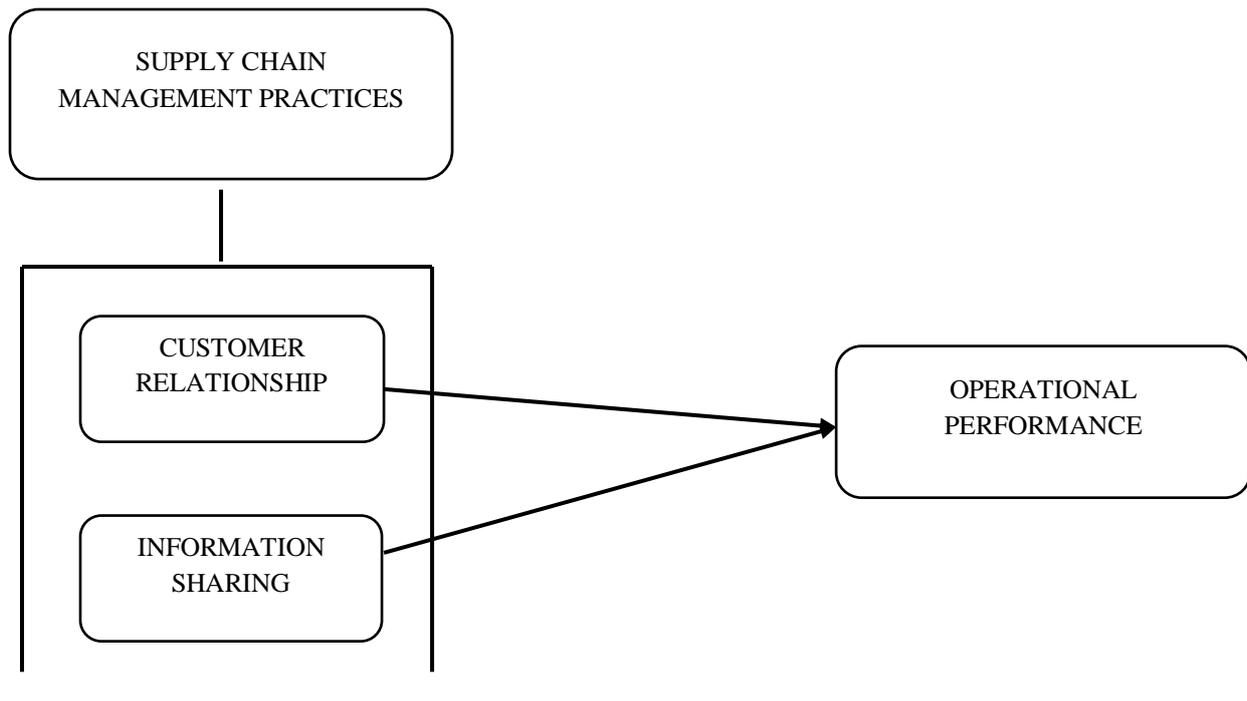
**Information Sharing:** Knowledge management (KM) refers to how well verifiable and effective Information flows across the supply chain (Mentzer, 2001, Yu et al. 2001, Li, Ragu-Nathan, Ragu-Nathan, Rao & Subba, 2006). To better utilize KM, it is crucial to understand what it offers to the supply chain, and its roots in how the industrial landscape ultimately moved from intensive data processing operations to being comprised of knowledge-based organizations (Liew & Talalayevsky 2008). It is also helpful, here, to understand that the supply chain may be perceived as a fundamentally intricate and dynamic system of flows—where information and knowledge flow drive material and capital flow (Del Rosario et al., 2013).

To add some distinction, a supply chain in which knowledge is shared is actually a progression of the information-based supply chain. This is because knowledge is considered a more valuable, more practically advantageous type of information, in the lexicon of organizations (Rashed, Azeem & Halim, 2010). That being said, it is the precision, timeliness, suitability, and trustworthiness of information exchanged throughout the supply chain that determines the quality of that information (Li, Ragu-Nathan, Ragu-Nathan, Rao & Subba, 2006). The incorporation of information in a supply chain may also bring substantial advantages specific to manufacturing sector. These may include the ability to cut costs intelligently, a decrease of uncertainties, increased organizational efficacy, improved services, building and solidification of social bonds, earlier problem discovery, faster responses, reduced cycle time from order to delivery market, an ability to decrease inventory due to efficient inventory management, etc. Of course, it has to be said that some obstacles may arise regarding information distribution, which necessitates having contingency plans to overcome them (Lotfi, Mukhtar, Sahran, & Zadeh, 2013). Specialized data is in subgroup of the data that is found inside the data storage which is usually directed toward a specific line or specific work-team or it is used for a specific goal to achieve knowledge sharing (Rahahleh, & Omoush, 2020). Thus, we propose the following hypothesis:

**H0<sub>2</sub>:** There is no positive relationship between information sharing and operational performance.

### Operational Performances

Operational performance refers to an organisation's level of functioning, as weighed against typical benchmarks of efficacy, productivity, and environment accountability—including waste reduction and regulatory acquiescence, for example. This performance may be improved by including the consumer on pertinent matters like quality and material flows, resulting in faster and more precise delivery of results. This CRM dimension must be given suitable significance when coming up with SCM strategies (Vencataya, Seebaluk & Doorga, 2016). Slack, Chamber & Johnston (2004) quantified five distinct points to operational performance: Costs—the ability to manufacture or provide at low cost and quality; the ability to manufacture or provide according to requirements, without defects and speed: the ability to respond quickly to customer requests, and thus provide short time periods also; reliability: the ability to deliver goods and services as was promised to customers, Flexibility: The capacity to vary procedures, in presence of changing circumstances. Jensen and Sage (2000), in the same vein, identified many measurement goals for evaluating the performance of operations. These goals included cost-effectiveness, strategic positioning, sufficiency, utility, deliverability and feasibility, consistency, reliability, accuracy, frequency, reasonableness, timeliness, response, known functions, and safety. It can be seen that flexibility is a key factor, which many researchers see as increasing the efficacy of operational performance. Vanichchinchai (2014) argues that many organizations use flexibility, or their operational ability to successfully adapt to environmental changes and address requirements, to achieve a level of competitive advantage. Russell and Taylor (2004) noted that flexibility has become an important competitive weapon because it leads to quicker, more substantial production and delivery of new products in response to customer needs.



**Figure 1:** Operational Framework of Supply Chain Management Practices and Operational Performance

**Source:** *The dimensions of Supply chain management practices were adapted from Kumar and Kushwaha (2018) and Omoush (2020), while the measures of Operational Performance were adapted from Vachon and Klassen (2008)*

### Theoretical Framework

SCM practices are important to any organization as they improve an organizations leadership in the market, profitability and improves overall strategic positioning through the market variables which include price, cost, quality, delivery, and product innovation among others (Wisner 2001). Two theories explain the SCM practices concept: Contingency theory and Resource-Based View Theory.

**Contingency Theory:** The theory argues that under different situations, different solutions may prove important (Antal, 2010). Instead of applying common management principles, the theory seeks to demonstrate that different circumstances require different organizational set ups and infrastructure (Baranyi, 2001). Organisations are limited by several factors for example size of the firm, environment, and information technology. These contingencies are designed for developing the specific structures and functions of an organization.

Robin and Barwell (2007) stated that in order to improve the operational capacity for producing innovative products, a company must alter its organizational features and organise its key factors to form a robust and flexible supply chain (Lee 2001).Logistic Companies in Rivers state operate in a competitive environment; therefore, the Contingency theory will be a key SCM driver in planning and aligning their operations towards improving operational performance.

**Resource Based View Theory:** This theory highlights the gains a company acquires by possessing the necessary resources required for its survival. These may be in form of financial muscle, physical

locations, human labour and effort, technological advancements among other capabilities. These resources and capabilities set a firm apart from the rest and forms part of its competitive advantage. Possession of products and services with unique characteristics or specific and detailed work procedures will shut out competition for firm's resources and capabilities (Prahalad& Hamel, 1990).

Organizations' adaptability to industrial and market changes can also be considered an opportunity in order to cope with global competition. Well-managed supply chain is essential to create competitive advantage and value (Lambert&Cooper, 2000). Competition is no longer specific to individual firms but rather it is supply chain against supply chain (Min&Mentzer, 2004).Benefits for this theory therefore accrue directly to operational performance (Deere,2006)

### Research Methodology

To explore and understand the supply chain management practices in logistic company, the study adopted the quasi-experimental research design because the researcher has limited or no control over the study participants (Leedy & Ormod, 2010). The target population of the study is 271 owners and operators of logistics companies in Rivers State. These employees were selected based on their years of experience which ranges from a minimum of ten years and above. It is however worthy of note that the accessible population was obtained through field survey at the offices of the various firms based on their addresses as cited in the Rivers State Yellow Pages. Rivers State Yellow Pages is a handbook of the Rivers State Ministry of Commerce and Industry. This is, however, verifiable at their official website; ([www.riversstateyellowpages.com](http://www.riversstateyellowpages.com))or their office; Block B. State Secretariat Complex, Port Harcourt, Rivers State. The simple random sampling technique was adopted considering that each sample has an equal chance of being selected. The minimum sample size was ascertained using the Krejcie and Morgan table, which amounted to 159 from a population size of 271 employees.

The main method of data collection for this study is the questionnaire. The questionnaire is divided into four parts. The first part is section A which comprises statement items seeking answers on the demographic characteristics of the respondents about their age, gender, marital status, etc. The second part is the section B which has statement items on supply chain management practices with the specific aim of seeking information on its elements being customer relationship and information sharing. The third part is section C which has statement items on operational performance. The dimensions and measures were measured using five (5) items instruments on a five-point Likert scale adopted from Likert (1932) and modified to suit the study from (1) strongly disagree, (2) disagree (3) indifferent (5) agree and (5) strongly agree. Pearson Product Moment Correlation Coefficient statistical tool and simple regression analysis were used to analyze the null hypotheses with the aid of Statistical Packages for Social Sciences (SPSS) version 22.

### Test of Hypotheses

This section is concerned with the tests for the bivariate hypotheses. The result is based on correlations, and it is a two-tailed, non-directional study. The Pearson product-moment correlation coefficient statistical analysis is used to test the correlations and strength of relations. The decision rule is to reject the null hypotheses where  $p < 0.05$  significant level and accept the null hypotheses where  $p > 0.05$ . All bivariate hypotheses were tested in the null form.

**Table 1: Relationship between Customer Relationship and Operational Performance**

<b>Correlations</b>			
		Customer Relationship	Operational performance
Customer Relationship	Pearson Correlation	1	.896**
	Sig. (2-tailed)		.000
	N	159	159
Operational performance	Pearson Correlation	.896**	1
	Sig. (2-tailed)	.000	
	N	159	159
** . Correlation is significant at the 0.05 level (2-tailed). <i>Source: Survey Data, 2021</i>			

**H01: There is no positive relationship between Customer Relationship and Operational Performance:**

The result of the data analysis shows a significant level  $p < 0.05$  ( $0.000 < 0.05$ ). The  $r = 0.896$ , showing very strong positive correlation between the variables. The findings reveal a positive relationship between the variables. Hence the alternate hypothesis is affirmed.

**Table 2: Relationship between Information Sharing and Operational Performance**

<b>Correlations</b>			
		Information Sharing	Operational Performance
Information Sharing	Pearson Correlation	1	.737**
	Sig. (2-tailed)		.004
	N	159	159
Operational Performance	Pearson Correlation	.737**	1
	Sig. (2-tailed)	.004	
	N	159	159
** . Correlation is significant at the 0.05 level (2-tailed). <i>Source: Survey Data, 2021</i>			

**H02: There is no positive relationship between information sharing and operational performance:**

The result of the data analysis shows a significant level  $p < 0.05$  ( $0.004 < 0.05$ ). The  $r = 0.737$ , showing positive correlation between the variables. The findings reveal a positive and strong relationship between the variables. Consequently, the alternate hypothesis is empirically established.

### Discussion

The study presented in this paper has examined the impact of Supply Chain Management (SCM) practice on operational performance. The conceptual model was tested to evaluate the logistics firm's operational performance. The findings related to each hypothesis are discussed in turn. We had

hypothesized that customer relationship as SCM practice would be positively associated with the operational performance. The findings of our study are in conformance with other research studies' results regarding the customer relationship and performance of the organizations. These findings are well supported by the previous literature. For example, Kumar and Kushwaha (2018), found that customer relationship as supply chain practice strongly related to firm performance. This is because Fair price shops are running for the distribution of food commodity to the needy people and good relationship with customers will bring good image for the fair price shop. Improved distribution performance is the key element of supply chain success which brings customer satisfaction (Stewart, 1995).

Furthermore, we had hypothesized that information sharing as Supply Chain Management practice (SCM) would be positively associated with the operational performance. The results of this study show that information sharing is having a positive impact on operational performance. For example, Baihaqi and Sohal (2013), analyzed the impact of information sharing on supply chain performance and found that information sharing is one of the major means to enhance supply chain performance and it allows companies to better coordinate their activities with their supply chain partners that lead to increased quality performance. Furthermore, this finding agrees with Inderfurth, Sadrieh, and Voigt (2012) who investigated information sharing and supply chain performance and found that information sharing has positive effect on the quality of supply chain performance.

### Conclusions

Our study is of interest from both theoretical and practical perspectives. The proposed conceptual model was derived from previous studies and backed with empirical validation. In this globalized world, employing the Supply Chain Management (SCM) practice not only provides an edge over its competitor but it is essential to improve the operational performance of the organization. A review of the relevant literature shows that the SCM practices help in financial performance achievement but still lacks sufficient empirical evidence regarding the impact of Supply Chain Management (SCM) practice on operational performance. Based on survey data obtained from 157 owner and operators of logistic firms, our analysis provides evidence that Supply Chain Management practice (customer relationship and information sharing) positively impact the operational performance. From the findings, it is clear that information sharing construct has the highest impact on performance while customer relationship (CR) construct has the least impact on performance. The contribution of this study is that the data derived from the study projects the manifestation of the variables that are particular to Logistic firms in River's state. The study therefore contributes through its specific focus on the transportation sector as such findings can serve to enrich decision making and drive knowledge utility with regard to the evidence of Logistic firms in Rivers State. Also, the findings of this study also contribute as they provide empirical evidence which re-affirms the positions and assumptions of the need for supply chain management practices even within the context of Rivers state. By this, the study validates the pervasive tendencies of previous models provided by the theoretical frameworks: resource-based view and contingency theory. These theories support and emphasize the position of supply chain management practices as being significant in predicting desired organizational outcomes such as operational performance.

### **Limitations and Future Research Scope**

The limitations of this study may serve as ideas for future research. The biggest limitation of this study is that only two supply chain management practices were taken to examine the operational performance of logistic firms in Rivers state. Secondly, many of our findings may be limited to the setting of our research, the relatively small sample size covering a small part of the country. The results may not be generalized. Thus, future research may need to include an even bigger sample size. Moreover, the analyses performed on only two supply chain management practices and the scope of our study is limited to customer relationship and information sharing practices only. Future research should include a broader model that also includes other supply chain management practices. Despite these limitations, this study will help the researchers and practitioners to more fully understand the positive impact of SCM practices on operational performance.

## References

- Baihaqi, I., & Sohal, A. S. (2013). The impact of information sharing in supply chains on organisational performance: An empirical study. *Production Planning and Control*, 24(8–9), 743–758.
- Balsmeier P. W., & Voisin, W. (1996). Supply chain management: A time-based strategy. *Industrial Management*, 38(5), 24–27.
- Barua, J. J. (2013). Challenges facing supply chain management in the Oil marketing companies in Kenya, *Unpublished MBA project, University of Nairobi*.
- Bayo-Moriones, A., & Merino-Díaz de Cerio, J. (2002). Human resource management, in strategy research: A comparison of approaches. *Academy of Management Review*, 11(4), 801-814.
- Bayraktar, E., M., & Demirbag, H. (2009). A causal analysis of the impact of information systems and supply chain management practices on operational performance: evidence from manufacturing SMEs in Turkey. *International Journal of Production Economics*, 122(1), 133-149.
- Burgess, K., Singh, P. J., & Koroglu, R. (2006). Supply chain management: a structured literature review and implications for future research. *International Journal of Operations & Production Management*, 26(7), 703 - 729 (27).
- Chance, J., & Jay, F. (2010). A study of Best Practices in Supply Chain Management. A Dissertation Presented in Partial Fulfillment of True Requirements. *Degree Doctor of Philosophy, Capell University*.
- Childerhouse, P., & Towill D. R., (2003). Simplified material flow holds the key to supply chain integration. *Omega*, 31(1), 17-27. [https://doi.org/10.1016/S0305-0483\(02\)00062-2](https://doi.org/10.1016/S0305-0483(02)00062-2)
- Chopra, S. & Meindl, P. (2004), *Supply Chain Management: Strategy, Planning, and Operation*, 2nd ed., Pearson Prentice-Hall, Upper Saddle River, NJ.
- Claycomb, C., Droge, C., & Germain, R. (1999). The effect of just-in-time with customers on organizational design and performance. *International Journal of Logistics Management*, 10(1), 37–58.
- Closs, D. J., Jacobs, M. A., Swink, M., & Webb, G. S., (2008). Toward a theory of competencies for the management of product complexity: six case studies. *Journal of Operations Management*, 26(5), 590-610. Retrieved from <https://doi.org/10.1016/j.jom.2007.10.003>
- Day, G. S. (2000). Managing market relationships. *Journal of the Academy of Marketing Science*, 28(1),24–30.
- Del Rosario, M., Salazar, P., Alfonso, A., Lasserre, A., Cedillo, M., & González, J. (2013). The Role of Knowledge Management in Supply Chain Management: A Literature Review. *Journal of Industrial Engineering and Management*, 10(4), 711-788. <https://doi.org/10.3926/jiem.2144>
- Fantazy, K. A., Kumar, V., & Kumar, U. (2010). Supply management practices and performance in the Canadian hospitality industry. *International Journal of Hospitality Management*, 29(4), 685-693.
- Fynes, B., De Burca, S., & Mangan, J., (2008). The effect of relationship characteristics on relationship quality and performance. *International Journal of Production Economics*, 111(1), 56-69. Retrieved from <https://doi.org/10.1016/j.ijpe.2006.11.019>
- Hamister, J. W. (2012). Supply chain management practices in small retailers. *International Journal of Retail & Distribution Management*, 40(6), 427-450. Retrieved from <https://doi.org/10.1108/09590551211230250>
- Inderfurth, K., Sadrieh, A., & Voigt, G. (2012). The impact of information sharing on supply chain performance under asymmetric information. *Production and Operations Management*, 22(2), 410–425.

- Jayachandran, S., Sharma, S., Kaufman, P., & Raman, P., (2005). The role of relational information processes and technology use in customer relationship management. *Journal of marketing*, 69(4), 177-192. <https://doi.org/10.1509/jmkg.2005.69.4.177>
- Jensen, A., Sage, J., & Peter, B. (2000). A systems management approach for improvement of organization performance measurement systems. *Information Knowledge Systems Management*, 2, 33-61.
- Jones, C. (1998). Moving beyond ERP: making the missing link. *Logistics Focus*, 6(7), 2-7.
- Kandagatla, S. (2005). The Conception & Development of Visibility in Transportation Process of my SAP SCM through Analytics, for SAP AG. *Master Thesis submitted to the Faculty of Business Application of computer Sciences*, (Fachhschule), Furtwangen.
- Kumar A., Kushwaha G. S., (2018). Supply chain management practices and operational performance of fair price shops in India: an empirical study. *Log Forum* 14(1), 85-99, <http://dx.doi.org/10.17270/J.LOG.2018.237>
- Kumar, A., & Kushwaha, G. S. (2018). Supply chain management practices and operational performance of fair price shops in India: An empirical study. *Scientific Journal of Logistics*, 14(1), 85-99.
- Lambert, D. M., Cooper, M. C., & Pagh, J. D., (1998). Supply chain management: implementation issues and research opportunities. *The International Journal of Logistics Management*, 9(2), 1-19. Retrieved from <https://doi.org/10.1108/09574099810805807>
- Lambert, D. M., García-Dastugue, S. J., & Croxton, K. L. (2005). An evaluation of process-oriented supply chain management frameworks. *Journal of Business Logistics*, 26(1), 25-51. <https://doi.org/10.1002/j.2158-1592.2005.tb00193.x>
- Lawer, A. P., Amaning, F. O., Asare, C. & Acquah, I. S. K. (2014). The effect of supply chain management practices on performance of SMEs in Sekondi-Takoradi Metropolis of Ghana. *ADRRRI Journal of Arts and Social Sciences*, 8(1), 19-28.
- Lewis, I., & Talalayevsky, A. (2008). Improving the Inter-Organizational Supply Chain through Optimization of Information Flows. *The Journal of Enterprise Information Management*, 17(3), 229-237. <https://doi.org/10.1108/17410390410531470>
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Rao, S. S., (2006). The impact of supply chain management practices on competitive advantage and organizational performance, *Omega* 34, 107-124. Retrieved from <https://doi.org/10.1016/j.omega.2004.08.002>
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., Rao, S., & Subba, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*. <https://doi.org/10.1016/j.omega.2004.08.002>
- Lotfi, Z., Mukhtar, M., Sahran, S., & Zadeh, A. (2013). Information Sharing in Supply Chain Management. Published by Elsevier Ltd. Open Access Under CC BY-NC-ND License. Selection and Peer-Review under Responsibility of the Faculty of Information Science and Technology, University Kebangsaan Malaysia. <https://doi.org/10.1016/j.protcy.2013.12.194>
- Ivarado, U. Y., & Kotzab, H. (2001). Supply Chain Management: The Integration of Logistics in Marketing. *Industrial Marketing Management*. [https://doi.org/10.1016/S0019-8501\(00\)00142-5](https://doi.org/10.1016/S0019-8501(00)00142-5)
- Mentzer, J. (2001). What Is Supply Chain Management? *Supply Chain Management*.
- Mentzer, J. T., Min, S., & Zacharia, Z. G. (2000). The nature of inter-firm partnering in supply chain management. *Journal of Retailing*, 76(4), 549-568.

- Miyare, S. (2014). Supply chain management practices and organizational performance of Kenolkobil limited, *Unpublished MBA Project, University of Nairobi*.
- Moberg C. R., Cutler, B. D., Gross, A., Speh, T. W. (2002). Identifying antecedents of information exchange within supply chains. *International Journal of Physical Distribution and Logistics Management*, 32(9),755–770.
- Monczka, R. M., Petersen, K. J., Handfield, R. B., & Ragatz, G. L. (1998). Success factors in strategic supplier alliances: The buying company perspective. *Decision Science*, 29(3),5553–5577.
- Mwirigi, P. (2007). Green Supply Chain Management Practices by Manufacturing Firms in Kenya. *Unpublished MBA Project. University of Nairobi*.
- Novack, R. A., Langley Jr, C. J., & Rinehart, L. M. (1995). Creating logistics value: Themes for the future. Oak Brook, IL. *Council on technology and market-based breakthrough innovations*. 69, 42-60.
- Rahahleh, A., & Omoush, M. (2020). The role of business intelligence in crises management: a field study on the telecommunication companies in Jordan. *International Business Research*, 13(1).  
<https://doi.org/10.5539/ibr.v13n1p221>
- Randall, W. S., Gibson, B. J., Clifford, D. C., & Williams, B. D., (2011). Retail supply chain management: key priorities and practices. *The International Journal of Logistics Management*, 22(3), 390-402.  
Retrieved from <https://doi.org/10.1108/09574091111181381>
- Rashed, C. A. A., Azeem, A., & Halim, Z. (2010). Effect of information and knowledge sharing on supply chain performance: A survey based approach. *Journal of Operations and Supply Chain Management*, 3(2), 61-77. <https://doi.org/10.12660/joscmv3n2p61-77>
- Robb, D. J., & Xie, B. (2008). Supply chain and operations practice and performance in Chinese furniture manufacturing. *International Journal of Production Economics*, 112(2), 683-699.
- Robinson, C. J., & Malhotra, M. K. (2005). Defining the concept of supply chain quality management and its relevance to academic and industrial practice. *International Journal of Production Economics*, 96(3), 315–337.
- Russell, R., Taylor, S., & Bernard, W. (2004). *Operations Management* (4th ed.). Prentice-Hall, Inc: New Jersey, USA.
- Sambasivan, M., Siew-Phaik, L., Mohamed, Z. A., & Leong, Y. C., (2013). Factors influencing strategic alliance outcomes in a manufacturing supply chain: role of alliance motives, interdependence, asset specificity and relational capital. *International Journal of Production Economics*, 141(1), 339-351. Retrieved from <https://doi.org/10.1016/j.ijpe.2012.08.016>
- Santos, S. (2006). Integrated System for Measuring Performance in Supply Chain. Edema Conference, Glasgow.
- Scott, C., & Westbrook, R., (1991). New strategic tools for supply chain management. *International Journal of Physical Distribution & Logistics Management*, 21(1), 23-33.  
<https://doi.org/10.1108/09600039110002225>
- Shalakha, M., (2015). Innovative Supply Chain and Organisationa; performance of Oil Marketing Companies in Kenya. *Unpublished MBA Project. University of Nairobi*.
- Shobayo, P. B. (2017). Supply chain management and operational performance in Nigeria: A panel regression model approach. *International Journal of Entrepreneurial Knowledge*, 5(2), 66-77

- Slack, N., Chamber, S., & Johnston, S. R. (2004). *Operations Management* (4th ed.). Harlow: Pearson Education.
- Stadtler, H., & Kilger, C. (2008). *Production, planning and scheduling Supply Chain Management and Advanced Planning* (4th ed.). Springer, Berlin, Heidelberg. [https://doi.org/10.1007/978-3-540-74512-9\\_11](https://doi.org/10.1007/978-3-540-74512-9_11)
- Stein T., & Sweat J., (1998). Killer supply chains. *Information week*, 708(9), 36-46.
- Stewart G. (1995). Supply chain performance benchmarking study reveals keys to supply chain excellence. *Logistics Information Management*, 8(2), 38-44. Retrieved from <https://doi.org/10.1108/09576059510085000>
- Suhong, L., Ragu-Nathan, B., Ragu-Nathan, T., & Subba Rao, S. (2014). The impact of supply chain management practices on competitive advantage and organizational performance. *The international journal of management science*, 34(29),107–124.
- Supalak, A. (2010). Supply chain management practices in the hotel industry: an examination of hotel food supply chains in south England. *Unpublished PhD thesis, University of Exeter*
- Tan, K. C., Kannan, V. R., & Handfield, R. B. (1998). Supply chain management: Supplier performance and firm performance. *International Journal of Purchasing and Materials Management*, 34(3), 2–9.
- Tan, K.C., Kannan, V. R., Handfield, R. B., & Ghosh, S., (1999). Supply chain management: an empirical study of its impact on performance. *International journal of operations & production Management*, 19(10), 1034-1052. <https://doi.org/10.1108/01443579910287064>
- Tanriverdi, H., & Venkatraman, N., (2005). Knowledge relatedness and the performance of multibusiness firms. *Strategic Management Journal*, 26(2), 97- 119. <http://dx.doi.org/10.1002/smj.435>
- Towill, D. R. (1997). The seamless chain—the predator’s strategic advantage. *International Journal of Technology Management*,13(1), 37–56.
- Turner, J. R. (1993). Integrated supply chain management: What’s wrong with this picture. *Industrial Engineering*, 25(12), 52–55.
- Vachon, S., & Klassen, R. D. (2008). Environmental management and manufacturing performance: The role of collaboration in the supply chain. *International Journal of Production Economics*, 111(2), 299–315.
- Vanichchinchai, A. (2014). Supply chain management, supply performance and total quality management: An Organizational Characteristic Analysis. *International Journal of Organizational Analysis*, 22(2), 126-148. <https://doi.org/10.1108/IJOA-08-2011-0500>
- Vencataya, L., Seebaluck, A. K., & Doorga, D. (2016). Assessing the impact of supply chain management on competitive advantage and operational performance: A Case of Four-Star Hotels of Mauritius. *International Review of Management and Marketing*, 6(4), 61-69.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance strategy and operational performance in the Spanish manufacturing industry. *Management*, 5(3), 175-199.
- Wines, L. (1996). High order strategy for manufacturing. *The Journal of Business Strategy*, 17(4), 32–33.