



Research Article

Supply chain management practice among small and medium manufacturing enterprises in Nigeria: Current state and implications

Olugbenga Ayo Ojubanire^{1*}, Dorcas O. Popoola²

^{1,2}Department of Consumer Sciences and Hospitality Management, Obafemi Awolowo University, Osun State, Nigeria

*Corresponding Author email: banireoa@gmail.com

Submitted: 28 December 2021

Revised: 06 March 2022

Accepted: 15 March 2022

ABSTRACT

The study evaluated supply chain management practices of SMMEs in selected locations in Nigeria. It also assessed the performance of SMMEs and determined the level of government assistance to SMMEs in Nigeria. A descriptive survey design was adopted for this study. A sample size of 295 respondents was selected using a simple random sampling technique out of a total population of 2,600 at the time of this study. A questionnaire was used to gather data for this research. The data collected was analyzed using frequencies and percentages, mean, standard deviation, and Pearson's correlation. Results from the study showed that SMMEs had fairly good supplier integration (50.05%) and information sharing (55.3%) supply chain practices. Results further revealed that operational performance (59.30%) was high and quite satisfactory, while financial performance (51.50%) was a little over average. In addition, the government's contribution and assistance to SMMEs were low. While suppliers' integration ($r = 0.051$, $p = 0.05$), information sharing ($r = 0.052$, $p = 0.05$) and postponement ($r = 0.98$, $p = 0.05$) had no significant effect on performance, the extent of outsourcing ($r = 0.121$, $p = 0.05$) did. Results finally showed that government assistance ($r = 0.61$, $p = 0.05$) has a positive and significant effect on supply chain management practices. The study concluded that suppliers' integration and information sharing capabilities were fairly good among the entrepreneurs, the operational performance level among the entrepreneurs was high and satisfactory, and the government's contribution to the growth of SMMEs was found to be significant, but generally low.

Keywords: Supply Chain; Small and Medium Enterprises; Manufacturing

1. INTRODUCTION

Supply chain management (SCM) has evolved over the years to becoming a watchword for all enterprises – large, medium and small. According to Stock and Boyer (2009) as cited in Too et al., (2017), SCM has attracted a great popularity since the 80s, from both researchers and practitioners and has since been defined with various terms by various scholars. The Council of Supply Chain Management Professional for example describes the concept as a process of planning, coordinating and controlling all activities involved in the creation and delivery of value to end users (Thoo et al., 2017). Today, SCM signifies a radical change of conventional organizational principles and culture in order to achieve the business goals of optimization and efficiency (Baymout, 2015). The essential idea of SCM circles around “the efficient flow of goods, service, information and money to the

business with aim to provide right product to the right customers at the right cost, right time, right quality and right quantity” (Thoo et al., 2017).

Supply chain management is concerned with the management of organizational resources as well as the flow of information within the organization as well as with external stakeholders in order to provide the highest level of customer or consumer satisfaction while keeping costs as low as possible (Fish, 2011; Palmer, 2012). Supply chain management is concerned with the manner in which industries are linked together to form a single entity. The link or relationship typically exists between suppliers who provide inputs, manufacturing and service support operations that convert and transform inputs into final products and/or services, and distribution and local service providers who localize the products. It is largely dependent on companies or enterprises to achieve a significant competitive advantage.

According to Ballou (2004), improving supply chain management can reduce costs through efficient operations, reducing waste generation and energy consumption. Efficient supply chain management is the key to effectively using resources and improving customer satisfaction in different service and production sectors. Supply chain management (SCM) has been described as “a key strategic factor for increasing organizational effectiveness and for better realization of organizational goals such as enhanced competitiveness, better customer care and increased profitability” (Gunasekaran et al., 2001). The world has become a global one where new technology has been introduced, intense competition amongst various industries, heightened customer expectation, geographical factors, and cost competitiveness. According to the Organization for Economic Co-operation and Development (OECD) (2017), most of the enterprises in developed and developing countries are small and medium enterprises (SMEs) in structure, distributed across various sectors of the economy, especially manufacturing. For most emerging economies, small and medium businesses and especially the those in manufacturing, are the principal contributor to economic development, employment and wealth creation (OECD, 2017). The growth of these enterprises in Nigeria in recent times has been very slow if not non-existent (Okon, 2018)

An appropriate and efficient SCM process offers an enormous number of benefits to business enterprises. The small and medium sized-enterprises (SMEs) however has a lot to gain. Application of SCM can benefit SMEs in various ways including but not limited to increased competitive advantages, optimal resource utilization and better organizational efficiency. *“SMEs comprise 70-90 per cent of enterprises in most emerging countries, and therefore make a large contribution to entrepreneurship, gross domestic product, and employment. They are now considered to be a major source of dynamism, innovation and flexibility for emerging and developing countries, as well as for the economies of the most industrialised nations”* (Baymout, 2015; Thoo et al., 2017).

Although confronted with an increasing number of uncertainties and challenges, including but not limited to market fluctuations, political instability, poor infrastructure, and lack of resources, small and medium manufacturing enterprises in emerging economies like Nigeria have to push even harder to leverage little resources in other to

optimize their supply chain collaborations, seeking to effectively and efficiently integrate key partners (suppliers and customers) into their business value chain. While most small enterprises in the manufacturing industry are still struggling with optimizing the classical supply chain management practices to improve their performance, the current industrial revolution and the transformation in global supply chain practice leaves these enterprises at an even greater disadvantage with a lot of catching up to do. This study assesses the current supply chain management practices of small and medium manufacturing firms in Nigeria to assert the current realities, the relationship with business performance, and the implications going forward.

Many studies have been conducted on supply chain management practices in large manufacturing companies, and specific studies on the importance of supply chain in driving and sustaining an effective economic system exist in Nigeria and other developing economies. However, studies on the planning and implementation of supply chain management practices among manufacturing enterprises in the SME sector are still in few numbers (Silvestre, 2015), so this study was conducted.

1.1. OBJECTIVES OF THE STUDY

The main objective of the study shall be to assess entrepreneurial supply chain management competencies and practices among SMMEs. The specific objectives are to:

1. Evaluate the enterprise supply chain management practices,
2. Assess the performance of SMMEs, and
3. Determine the level of government assistance in SMMEs.

1.2. RESEARCH QUESTIONS

The main research questions include:

1. What are the supply chain management practices among the selected SMMEs?
2. What is the performance of the selected SMMEs?
3. How does the level of Government assistance influence entrepreneurial supply chain competences?

1.3. HYPOTHESIS OF THE STUDY

1. There is no significant relationship between entrepreneurial supply chain management practices and performance
2. There is no significant relationship between government assistance and performance

2. LITERATURE REVIEW

The field of supply chain management has recently piqued the interest of both businesses and academics. This is due, in part, to the significant effects of globalization on both domestic and international manufacturing and production of goods. Globalization necessitates that customers place greater demands on manufacturers in order to

improve quality of service and provide flexibility while maintaining a competitive cost (Laosirihongthong & Dangayach, 2005). As a result, when developing an effective supply chain management system, it is critical to understand that industries cannot function independently (Lam, 2018). As a result, firms' strategies sustainability such as optimization of organizational resources and competencies, leveraging other competitive capabilities, and formation of strategic alliances with key industry collaborators forms the base for effective performance and collaborative coordination of supply chain network (Lu et al., 2016).

Furthermore, the significance of developing an efficient supply chain cannot be emphasized for manufacturing enterprises. According to Ugoani and Ugoani (2017), *"while recognizing suppliers' elements, logistics, and customers as important in developing an effective supply chain, other steps, such as developing strategic objectives and tactics to guide the process, as well as integrating and coordinating activities in the intra-organizational areas of the chain, are equally important"*. Also, Stevenson (2002), emphasized that effective management of suppliers and customers activities, and prompt resolution of associated issues, are very important building blocks in the design of an effective manufacturing supply chain system. Coordination of policies, policy planning, and policy execution across the system requires a formalized procedure for data transfer, access and use, where necessary. Data management in supply chain is very fundamental. In today's data driven society, exchange between parties in the supply network hinges on effective data administration across the supply network. The development of effective supply chain management for manufacturing enterprises demands that firms must take into account of the gains that come from strategic partnerships, quality data administration, as well as the digitalization of supply networks, especially in the information age.

The digital supply network enables superior collaboration and easy and effective communication among companies and/or different units of companies across digital platforms, resulting in improved reliability, agility, and effectiveness (Huddar et al., 2017). Digital supply networks have revolutionized and improved supply chain management, particularly among SMEs. This is because, *"as an intelligent, value-added, novel process, the digital supply network employs new approaches, specifically digital transformation with technologies, to generate competitive value and network effects for SMEs and other businesses"* (Büyükoçkan & Göçer, 2018).

Furthermore, SMEs play an important role in a country's economy; it has been demonstrated that this sector is a critical driver of economic growth and development. The manufacturing sub-sector has advanced several processes and products, as well as created a variety of job opportunities. It adapts to situations on a local and global scale, making it extremely vulnerable (Adeeko, 2017). Using innovative designs, an entrepreneurial supply chain creates the necessary link between buying businesses and their suppliers. The importance of supply chain management for SMEs has been highlighted. Some of these effects include higher product quality, lower costs, better customer service, and lower risk (Arend & Wisner, 2005). Androniceanu (2017) went on to say that managing supply chain systems among SMEs often results in increased market

participation, lower property costs, better service, higher quality, and reduced time to market. From studies as old as the work of Grove (1998), effective supply chain practices among SMEs shows a positive and significant correlation with increased customer competitiveness and increased profitability. The implication is that a well implemented supply chain system will result in a more competitive and profitable manufacturing enterprise. This is well asserted by Archer et al., (2006), when they posit that “*appropriate integration of supply chain roles is critical for SMEs to maintain their competitive edge and relevance in the global market*”.

2.1. CONCEPTUAL FRAMEWORK

Among other possible combinations of strategies in managing the supply chain for improving organizational performance, suppliers’ integration, information sharing, outsourcing, and postponement are common options. Donlon (1996), as reported in Sundram et al. (2016), identifies suppliers’ integration or partnering, outsourcing, right process flow, and information sharing as germane and evolving components of supply chain management practices, especially for the manufacturing sector. In order to guarantee a truly integrated supply chain, adequate and timely information sharing among business actors is fundamental. This is further important in the fast-paced era of evolving digital supply networks, redefining customization and postponement, which are crucial elements in supply chain management practice. Building on the work of Sundram et al., (2016), the conceptual framework below is put forward by the study.

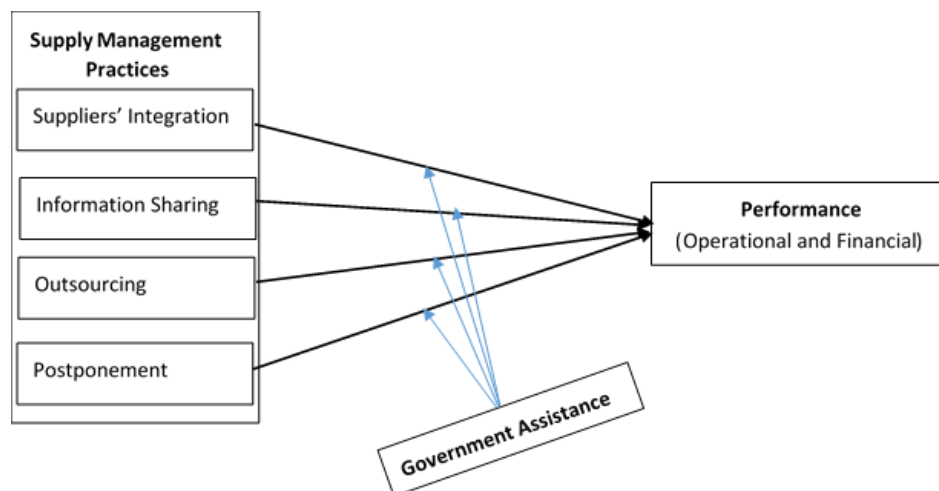


Fig. 1. Conceptual framework showing the relationship between supply chain management practices, Government assistance and performance

Source: Author

3. METHODOLOGY

The study was conducted among small and medium manufacturing enterprises in Osun and Lagos states in Nigeria. As a result, the research was carried out in various manufacturing firms in Osogbo, Osun state. The population of this study included all SMMEs in Osun State, Nigeria. The population included all employees at management

and operational levels. All two thousand six hundred (2600) employees of manufacturing firms will be included in the population. For this study, Osogbo, Osun state will be considered for sampling. This is because it is one of the firms with the highest SMM in Osun state. One instrument was used in gathering data for this study. The questionnaire comprised five (5) sections from A to E. Section A contained information on the demographic information of the respondents. Section B contained items on supply chain management practices, Section C contained items on customer relationship management practices, Section D comprised items on the performance of SMMEs, and Section E comprised items on the level of government assistance to SMMEs. In order to ascertain the usability of the questionnaire, the reliability test was carried out, using Cronbach Alpha, Split-halves, and Spearman Brown Tests. For Section B, the values were 0.950 for Cronbach Alpha, 0.922 and 0.911 in the first and second halves, and 0.898 for Spearman Brown. For Section C, the values were 0.783 for Cronbach Alpha, 0.890 and 0.611 in the first and second halves, and 0.500 for Spearman Brown. For Section D, the values were 0.946 for Cronbach Alpha, 0.891 and 0.936 in the first and second halves, and 0.887 for Spearman Brown. And for Section E, the values were 0.946 for Cronbach Alpha, 0.905 and 0.921 in the first and second halves, and 0.899 for Spearman Brown. From these values, the questionnaire was considered appropriate for data collection. The data collected was analysed using the Statistical Package for Social Sciences (SPSS) and described using frequency tables, percentages, mean and standard deviation. The hypothesis was tested using Pearson's correlations.

4. RESULTS

Table 1. SOCIO-Demographics Characteristics of the Respondent

Variable	Frequency	Percentage
<i>Sex</i>		
Male	163	55.3
Female	132	44.8
<i>Age</i>		
21-30 years	152	51.5
31-40 years	95	32.2
41-50 years	37	12.5
51years and above	11	3.7
<i>Ethnicity</i>		
Yoruba	197	66.7
Igbo	82	27.8
Hausa	12	4.1
Others	5	1.7
<i>Marital status</i>		
Single	140	47.4
Married	146	49.5
Widowed	7	2.4
Divorced	2	0.7

Table 1 above showed the socio-demographic data of the 295 respondents, where 55.3% of the respondents were males; this indicates that entrepreneurial supply chain management is not gender-biased. 51.5% of the respondents fell within the age range of

21–30 years. This implies that most respondents were at their youthful age, thus making them at a productive advantage within entrepreneurial supply chain management. The respondents, which comprise 66.7%, are of the Yoruba clan; this simply implies that more of the Yoruba ethnic group is involved in the entrepreneurial supply chain in the area of study. 49.5% were married. This implies that more married individuals are involved in the supply chain system.

Table 2. Distribution of Respondents by Academic and Employment Characteristics (N=295)

Variable	Frequency	Percentage
<i>Educational Qualification</i>		
H.N.D	58	19.7
B.Sc	128	43.4
MBA/MSc	55	18.6
Certification	45	15.3
No formal education	9	3.1
<i>Working Experience</i>		
1-5years	191	64.7
6-10years	78	26.4
11-15years	12	4.1
16years and above	14	4.7
<i>Staff Level</i>		
Manager	68	23.1
Senior Staff	100	33.9
Junior Staff	127	43.0
<i>Existence of Supply Chain Department</i>		
None	23	7.8
Yes	197	66.8
No	75	25.4

Descriptive statistics in Table 2 show that 43.4% have a Bachelor's degree from a reputable university; this implies that more people involved in supply chain management have a B.Sc., which gives them great leverage and basic knowledge of operational activities. 64.7% of the respondents have 1–5 years of work experience. This means that most of the respondents have had work experience of between 1–5 years. In the categories of staff, 43.0% are junior staff. Junior staff are much more common than other categories of staff. 66.8% attested to having a supply chain department in their company, which means that more manufacturing companies recognize the importance of a supply chain department for effective and efficient production.

4.1. RESEARCH QUESTION 1

What are the supply chain management practices among the selected SMMEs?

Table 3. Descriptive Analysis of Supply Chain Management Practices of Selected Manufacturing Firms

SCM Practices	Mean $\pm$ SD
<i>Suppliers Integration</i>	
Main suppliers are part of planning & goal setting	3.31 $\pm$ 0.67
Quality is vital for supplier's choice	3.21 $\pm$ 0.90

SCM Practices	Mean $\pm$ SD
key suppliers are part of product development	3.16 $\pm$ 0.89
Participation of Key suppliers in improvement programs	3.14 $\pm$ 0.95
Participation in suppliers' product quality improvement	3.15 $\pm$ 0.95
<i>Quality of information sharing</i>	
Accuracy of information exchange	3.14 $\pm$ 1.00
Reliability of exchanged information	3.13 $\pm$ 1.03
Comprehensive information exchanged	3.11 $\pm$ 1.00
Adequacy of exchanged information	3.09 $\pm$ 1.08
<i>Extent of Outsourcing</i>	
Logistics and related services	2.92 $\pm$ 1.03
Customers' pre-sales services	2.93 $\pm$ 1.02
Customer after-sales services	2.99 $\pm$ 1.01
Information and information systems services	2.83 $\pm$ 1.14
<i>Postponement</i>	
Postponement of product assemblage until receipt of customer orders	3.00 $\pm$ 1.06
Products are intended for flexible assembly	2.98 $\pm$ 1.04

Note: SA –Strongly Agree, A –Agree, D –Disagree, SD –Strongly Disagree Source: Field survey, 2019

Table 3 reveals that more than half of the respondents agreed ($x = 3.31$) that key suppliers should be involved in the planning and goal-setting activities of a manufacturing firm. The new activity on the table indicates a strong agreement ($x = 3.21$) from the respondents that quality is a very important criterion to be considered when choosing suppliers, which implies that quality is to be factored in into the various products as consumers always come back to organizations where they have gotten value for their money. The respondents further agreed ($x = 2.83$) to some extent on the outsourcing of information systems, while the overall postponement factor ($x = 2.99$) is quite low but positive.

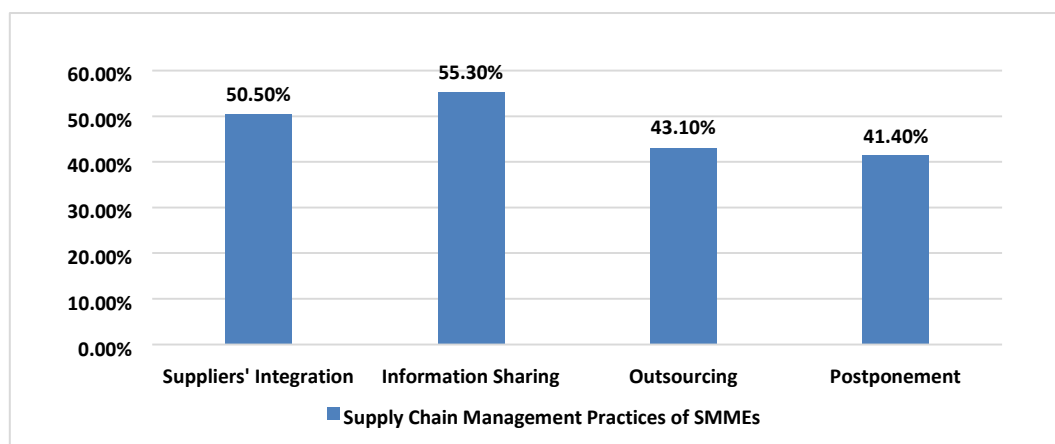


Fig. 2. Supply Chain Management Practices

Source: Field survey, 2019

From Fig. 1, it reveals that SMMEs has fairly good suppliers' integration, and information sharing (55.3%) supply chain practices while outsourcing (43.1%) and postponement (41.4%) were low.

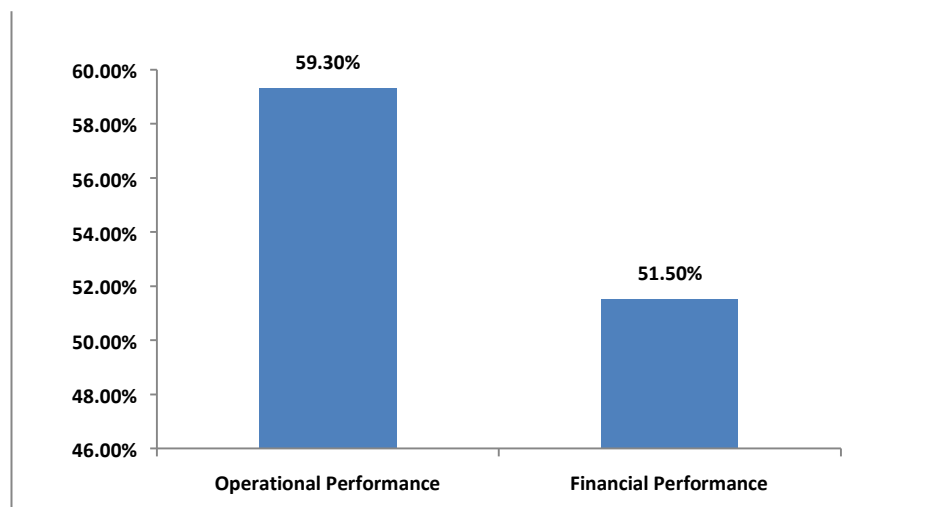
4.2. RESEARCH QUESTION 2

What is the performance of the selected SMMEs?

Table 4. Respondents Distribution On Performances Of Smmes

Performance Parameters	Mean±SD
<i>Operational Performance</i>	
Increased Product Quality	3.75±1.14
Increased Customer satisfaction relative to competitors	3.74±1.19
Timely Delivery of Products	3.68±1.15
Increased Employee morale and quality consciousness	3.63±1.21
Increased Product Reliability	3.53±1.22
Reduced Customer's compliant	3.11±1.29
<i>Financial Performance</i>	
Increased Sales	3.69±1.14
Increased Net Profit	3.68±1.10
Inventory Turnover	3.67±1.11
Return on Capital Employed	3.56±1.09
Increased Market Share	3.50±1.07
Return on Investment	3.42±1.14

Table 4 shows the results of the respondents as regards the performance of SMMEs; the operational performance metrics such as increase in product quality ($x = 3.75$), customer satisfaction ($x = 3.74$), and delivery lead time ($x = 3.68$) as well as the financial performance metrics including sales ($x = 3.69$), profit ($x = 3.68$), and turnover ($x = 3.67$), among others, all show good performance. It can be implied that small and medium-sized manufacturing firms are doing just fine in both financial and operational performance.

**Fig. 3.** Assessment of Performance of SMMEs

Source: Field Survey, 2019

The Fig. 2 showed that the level of operational performance (59.30%) was high and quite satisfactory while financial performance (51.50%) was a little over average, which means that the financial aspect of performance needs to be reviewed.

4.3. RESEARCH QUESTION 3

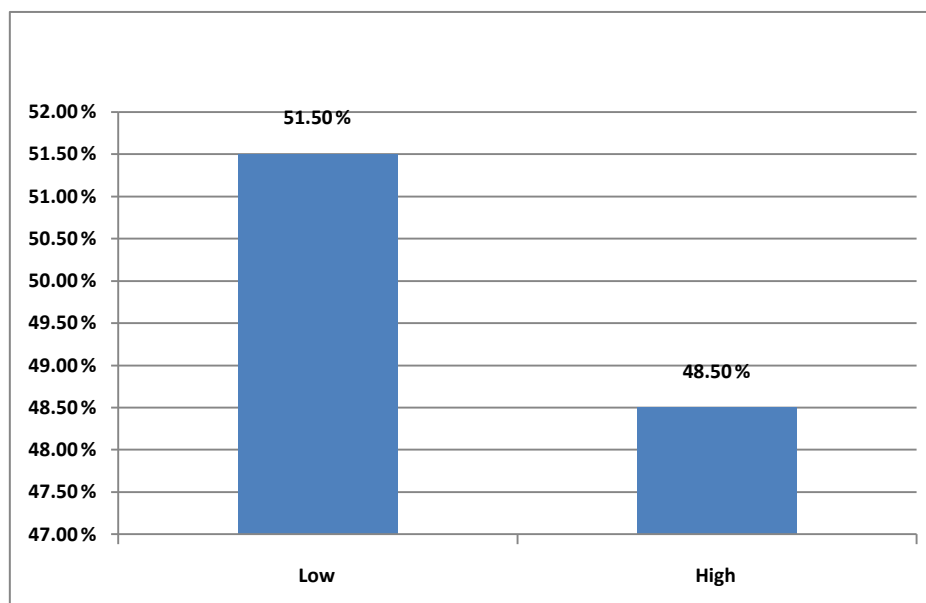
How does the level of Government assistance influence entrepreneurial supply chain competences?

Table 5. Respondents Distribution on Level of Government Assistance

Services	No %	Good %	Moderate %	Satisfactory %	Mean $\pm$ SD
Power	41.0	20.3	27.5	9.5	2.02 $\pm$ 1.07
Transport	48.1	16.6	20.0	13.6	1.96 $\pm$ 1.14
Training	39.7	24.7	29.5	4.4	1.95 $\pm$ 0.99
Plant and Machinery	47.8	20.7	18.0	11.2	1.88 $\pm$ 1.09
Infrastructure Facilities	47.5	23.4	17.6	9.8	1.86 $\pm$ 1.05
Marketing	41.7	25.1	23.4	6.1	1.86 $\pm$ 1.01
Land and Building	46.4	23.7	21.0	6.8	1.84 $\pm$ 1.00
Technical Support	49.2	21.7	19.7	7.1	1.80 $\pm$ 1.02
Finance	49.5	23.4	18.0	7.5	1.80 $\pm$ 1.00
Raw Materials	52.5	21.4	16.9	7.5	1.76 $\pm$ 1.00
Packaging and Shipping	54.6	19.3	17.3	7.1	1.74 $\pm$ 1.00

In Table 5, the analysis was on how much support SMMEs get from the government. The respondents stated that there was no government assistance with respect to the provision of power. 48.1% of the respondents stated that there was no assistance from the government in terms of transport. 39.7% stated that there was no government response as regards training. 49.5% of the respondents stated that there was no government assistance as regards to finance. 52.5% of the respondents stated that they received no assistance from the government on raw materials. 54.6% stated that there was help from the government as regards packaging and shipping.

Fig. 3 showed a low (51.50%) response from the government as regards assistance to small and medium manufacturing enterprises.

**Fig. 4.** Assessment of Government Assistance

4.4. HYPOTHESES TESTING

H₁ There is no significance relationship between entrepreneurial supply chain management practices and performance.

Table 6. Correlation Analysis Between Supply Chain Management Practices and Performance

Variable	Correlation coefficient (r)	Coefficient of determination (r ²)	Percentage contribution	P-value
Suppliers' Integration	0.051	0.002	0.2	0.385
Information Sharing	0.052	0.002	0.2	0.372
Extent of Outsourcing	0.121*	0.015	1.5	0.038
Postponement	0.098	0.009	0.9	0.098

Table 6 above presents the correlation analysis between supply chain management practices and performance in small and manufacturing firms in Osogbo, Osun State. From table 7 above, the variables like; suppliers' integration ($r = 0.051$, $p > 0.05$), information sharing ($r = 0.052$, $p > 0.05$) had a positive but no significant relationship, while the variable postponement ($r = 0.098$, $p > 0.05$) had no significant relationship between supply chain management practices and performance, while the extent of outsourcing ($r = 0.121$, $p = 0.038$) had a positive and significant relationship with performance.

H₂: There is no significant relationship between government assistance and supply chain management practices

Table 7. Correlation Analysis Between Impact of Government Assistance and Supply Chain Management Performance

Variable	Correlation coefficient (r)	Coefficient of determination (r ²)	Percentage contribution	P-value
Government Assistance	0.161	0.026	2.6	0.005

Table 7 above shows the correlation analysis testing the relationship between government assistance and supply chain management practices. The table reveals that government assistance ($r = 0.161$, $p = 0.005$) has a positive and significant relationship with supply chain management practices. Therefore, the study therefore rejected the null hypothesis.

5. DISCUSSION OF RESULTS

This study sought to investigate supply chain management practices among SMMEs in Nigeria. To achieve the goals of this study, three research objectives and two hypotheses were raised. From research question one, the results showed that SMMEs had fairly good suppliers' integration and information sharing supply chain practices, while outsourcing and postponement were low. This means that most of the firms take out time to source information for their respective firms. Also, this implies that suppliers in supply chain management practices play a key role in the process where they are expected to be involved in planning and goal-setting activities, quality consideration, new product development, reliable and adequate information, outsourcing of logistics as well as customer service, and product assembly. This finding is in line with the findings of Baihaqi & Sohal (2012), who found that information sharing and that of Abdallah et al., (2014), who found that integration were high and significant supply chain practices among industries. Whereas, Agburu et al., (2017) discovered that outsourcing and postponement were high, thereby disagreeing with the findings of this study.

From research question two, the results showed that the level of operational performance was high and quite satisfactory, while financial performance was a little over average, which means that the financial aspect of performance needs to be reviewed. This finding is consistent with the findings of Shobayo (2017), who found high operational performance among firms in Nigeria. This, according to Shobayo (2017), enhances the supply chain of industries in Nigeria, especially SMEs. The findings of Archer et al., (2006) in the United States found a high financial performance in the use of supply chains among some selected industries. However, the study agreed that a consistent and periodic review is needed, even as suggested in this study.

Furthermore, results showed that government assistance for SMMs was generally low in Nigeria. This result is consistent with that of Oni & Daniya (2012) and Okafor et al., (2018), who found that the roles of government in the development of SMEs in Nigeria are still low. Thus, the government needs to do a lot for the development and sustainability of SMEs in Nigeria. These could be in terms of policy formulation, financial aid, and assistance, among others.

Results from the first hypothesis revealed that suppliers' integration, information sharing, and postponement all had no significant relationship with performance, while the extent of outsourcing had a significant and positive relationship with performance. This result is consistent with the findings of Baihaqi & Sohal (2012), who found that information sharing, although found important, does not significantly relate to organizational performance among selected industries in Australia. Whereas the findings of Abdallah et al., (2014) in Jordan negate the findings of this study, as they discovered that integration and postponement significantly and positively influence organizational performance. However, the same study also found that information sharing does not significantly relate to performance, thereby agreeing with this study. On outsourcing, the findings of Agburu et al., (2017) revealed that outsourcing of back office and primary activities led to an improvement in organizational performance. While the outsourcing of accounting activities did not have any influence on performance,

Finally, the results from hypothesis two revealed that government assistance had a significant and positive relationship with supply chain management practices and performance. which implies that government assistance plays a major role in the improvement of supply chain management practices. The finding is consistent with the studies of Peter et al., (2018) and Obokoh & Goldman (2016), both studies conducted in Nigeria, as their studies established that the presence of absolute availability of infrastructural facilities will positively influence the quality of service provided by SMEs.

5.1. CONCLUSION

The study concluded that suppliers' integration and information sharing as a practice of supply chain management were fairly good among the enterprises, while outsourcing and postponement were generally low. Also, the operational performance level among the enterprises was high and satisfactory; however, the financial performance among the SMMs was a bit above average. In addition, while the government's contribution to the

growth of SMMEs was found to be significant, the level of that contribution was generally low. Also from the study, the extent of outsourcing had a significant and positive effect on performance, while supplier integration, information sharing, and postponement all had no significant effect on companies' performance.

5.2. IMPLICATIONS FOR THEORY AND PRACTICE

Supply chain management has transitioned over and above the traditional approach currently prevalent among small and medium manufacturing enterprises. Value chain integration and data sharing are key components of modern-day management practice. SMME managers must consider it imperative to not just improve on existing supply chain practices but also initiate plans to transition to more digital approaches, not just for better business performance but also for quality improvement purposes.

5.3. RECOMMENDATIONS

From the findings of this study, it is recommended that financial performance be a strong determining factor in assessing the overall performance of a company. It is therefore important that firms, especially small and medium-sized manufacturing firms, leverage modern supply chain architecture and practices to cut costs and add to the bottom line. Good management of the supply chain is key to the sustainability of small and medium manufacturing enterprises, and technology is fast disrupting traditional supply chain practices. While large enterprises are quick to move in this direction, small and medium firms must be bold to evolve with the new trends in supply chain management, such as the digitalization of the supply chain.

Also, there is a need for adequate support for manufacturing enterprises in the form of policy development, funding, training, availability and access to infrastructure that could contribute to the growth of SMMEs, especially in developing economies.

Reference:

- Abdallah, A.B., Obeidat, B.Y., & Aqqad, N.O. (2014). The impact of supply chain management practices on supply chain performance in Jordan: The moderating effect of competitive intensity. *International Business Research*, 7(3), 13.
- Adeeko, A.E. (2017), *External business environment and entrepreneurial performance of small and medium enterprises (smes)*. Unpublished doctoral dissertation, Babcock University.
- Agburu, J.I., Anza, N.C., & Iyortsuun, A.S. (2017). Effect of outsourcing strategies on the performance of small and medium scale enterprises (SMEs). *Journal of Global Entrepreneurship Research*, 7(1), 1-34.
- Androniceanu, A. (2017). The three-dimensional approach of Total Quality Management, an essential strategic option for business excellence. *Amfiteatru Economic*, 19(44), 61-78.
- Archer, N.P., Hong, P., & Jeong, J. (2006). Supply chain management practices of SMEs: from a business growth perspective. *Journal of Enterprise Information Management*.
- Arend, R.J., & Wisner, J.D. (2005). Small business and supply chain management: is there a fit?. *Journal of Business Venturing*, 20(3), 403-436.

- Baihaqi, I., & Sohal, A.S. (2012). The impact of information sharing in supply chains on organisational performance: an empirical study. *Production Planning & Control*, 24(8-9), 743-758.
- Ballou, R.A. (2004). *Business logistics management*. Prentice-Hall, Englewood Cliffs.
- Baymout, M. (2015). Supply Chain Management for Small and Medium Size Enterprises. *International Journal of Advancements in Research & Technology*, 4(5), 20-35.
- Büyükoçkan, G., & Göçer, F. (2018). Digital supply chain: Literature review and a proposed framework for future research. *Computers in Industry*, 97, 157-177.
- Fish, L.A. (2011). Supply chain quality management. *Supply Chain Management-Pathways for Research and Practice*, 25.
- Grove, G.B. (1998). *The automotive industry—the customer's perspective: a study of the rover group. in working in partnership: Best practice in customer—supplier relations*, gower; Burnes, B., Dale, B., Eds.; Gower Publishing: Aldershot, UK, pp. 39-55. 25.
- Gunasekaran, A., Patel, C., & Tirtiroglu, E. (2001). Performance measures and metrics in a supply chain environment. *International Journal of Operations & Production Management*, 21(1-2), 71-87.
- Hong, P. & Jeong, J. (2006). Supply Chain Management Practices of SMEs: From a Business Growth Perspective. *J. Enterp. Inf. Manag.*, 19, 292-302
- Hong, S.-J., & Najmi, H. (2020). The Relationships between Supply Chain Capability and Shareholder Value Using Financial Performance Indicators. *Sustainability*, 12(8), 3130. doi:10.3390/su12083130
- Huddar, Y.N., Kumatagi, P.P., & Latte, M.R. (2017). Digital supply chain management- A Review. *International Advanced Research Journal in Science, Engineering and Technology*, 4(1), 34-37.
- Huo, B., Qi, Y., Wang, Z., & Zhao, X. (2014). The impact of supply chain integration on firm performance: The moderating role of competitive strategy. *Supply Chain Management: An International Journal*, 19. 10.1108/SCM-03-2013-0096
- Kersten, Wolfgang (Ed.); Blecker, Thorsten (Ed.); Ringle, Christian M. (Ed.) (2017). Digitalization in Supply Chain Management and Logistics: Smart and Digital Solutions for an Industry 4.0 Environment, *Proceedings of the Hamburg International Conference of Logistics (HICL)*, No. 23, ISBN 978-3-7450-4328-0, epubli GmbH, Berlin, <http://dx.doi.org/10.15480/882.1442>
- Lam, H.K. (2018). Doing good across organizational boundaries: Sustainable supply chain practices and firms' financial risk. *International Journal of Operations & Production Management*. 38(12), 2389-2412.
- Laosirihongthong, T., & Dangayach, G.S. (2005). A comparative study of implementation of manufacturing strategies in Thai and Indian automotive manufacturing companies. *Journal of Manufacturing Systems*, 24(2), 131-143.
- Lu, Y., Zhao, C., Xu, L., & Shen, L. (2018). Dual institutional pressures, sustainable supply chain practice and performance outcome. *Sustainability*, 10(9), 1-25.
- Obokoh, L.O., & Goldman, G. (2016). Infrastructure deficiency and the performance of small- and medium-sized enterprises in Nigeria's liberalised economy. *Acta Commercii*, 16(1), 336-339.
- OECD. (2017). *Enhancing the Contributions of SMEs in a Global and Digitalised Economy. Meeting of the OECD Council at Ministerial Level*, 1, 7-8.
- Okafor, L.I., Onifade, T.A., & Ogbечи, A.D. (2018). Analytical review of small and medium scale enterprises in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 6(2), 32-46

- Okon, E. O. (2018). MSMEs Performance in Nigeria: A Review of Supply Chain Collaboration Challenges. *International Journal of Marketing Research Innovation*, 2(1), 16-30. <https://doi.org/10.46281/ijmri.v2i1.103>
- Oni, E.O., & Daniya A.A. (2012). Development of small and medium scale enterprises: The role of government and other financial institutions. *Arabian Journal of Business and Management Review (OMAN Chapter)*, 1(7), 16-29
- Palmer, A. (2012). *Introduction to Marketing: Theory and Practice*. 3rd Edition. Oxford: Oxford University Press.
- Peter, F., Adegbuyi, O., Olokundun, M., Peter, A.O., Amaihian, A.B., & Ibidunni, A.S. (2018). Government financial support and financial performance of SMEs. *Academy of Strategic Management Journal*, 17(2), 1-14.
- 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.
- Silvestre, B.S. (2015). Sustainable supply chain management in emerging economies: Environmental turbulence, institutional voids and sustainability trajectories. *International Journal of Production Economics*, 167, 156169.
- Stevenson, W.J (2002). *Operations management*. 7th Edition Boston, M. C Graw-Hill, Irwin.
- Stock, J. R. and Boyer, S. L. (2009). Developing a Consensus Definition of a Supply Chain Management: A Qualitative Study. *International Journal of Physical Distribution & Logistics Management*. 39(8): 690-711
- Sundram, V. P., Chandran, V. G. R., & Awais Bhatti, M. (2016). Supply chain practices and performance: the indirect effects of supply chain integration. *Benchmarking*, 23(6), 1445– 1471. <https://doi.org/10.1108/BIJ-03-2015-0023>
- Thoo, A. C., Sulaiman, Z., Choi, S. L. & Kohar, U. H. A. (2017). Understanding Supply Chain Management Practices for Small and Medium-Sized Enterprises. *IOP Conference Series: Materials Science and Engineering*, 215, 012014
- Ugoani, J.N. & Ugoani, A. (2017). Supply chain management and productivity in Nigeria. *International Journal of Engineering and Manufacturing Science*, 7(1), 97-108