SUPPLY CHAIN MANAGEMENT PRACTICES AND SMEs PERFORMANCE: ROLE OF INFORMATION TECHNOLOGY CAPABILITY

IGASHI, Martina
Department of Business Administration,
ABU Business School, Ahmadu Bello University Zaria
martinaigashi6@gmail.com

RINGIM, Kabiru Jinjiri
Department of Business Administration,
ABU Business School, Ahmadu Bello University Zaria
kabirujinjiri@yahoo.co

BUGAJE, Idris Bashir
Department of Business Administration,
ABU Business School, Ahmadu Bello University Zaria
ibbugaje@abu.edu.ng

SAMBO, Halima Sani
Department of Actuarial science and Insurance
ABU Business School, Ahmadu Bello University Zaria
halimahssambo247@gmail.com

ABSTRACT

SMEs Performance has emerged as a significant subject of discourse in today's global business environment. This is because SMEs die within their first five years of existence while some go into extinction between their sixth and the tenth year. Only a portion scale through, flourish and grow to maturity. This study examined effects of supply chain management practices (SCMP) on SMEs performance in Kaduna State, and the moderating influence of IT capability. The study adopted a survey research design and took a quantitative approach. The study population consist 539 manufacturing SMEs in Kaduna State. A sample size of 223 was arrived utilizing Dillman et al. (2014) sampling formula. In order to decrease sampling error, the sample size was increased by 30% to 289. A self-administered structured questionnaire was used to solicit responses from respondents. Data was analyzed using PLS-SEM version 3. The study found that both customer relationship management and strategic supplier partnership (dimensions of SCMP) have significant positive effects on SMEs Performance. On the moderating relationship, the interaction between customer relationship management and SMEs performance is stronger in the presence of IT capability. The study recommends that SME that seek improved performance should incorporate appropriate IT capability to scout for adequate information and resources to augment their supply chain management practices.
Keyword: Customer relationship management, IT capability, SMEs performance, strategic supplier partnership, supply chain management practices

INTRODUCTION

Performance of SMEs is vital to the accomplishment of sustainable growth and development of developing nation. Okafor (2020) states that the wealth of a nation, as well as their growth and development is strongly associated with performance of SMEs. SMEs are engine room for economic development and growth, being avenues for employment generation, and innovations and wealth creation stimulation (Offiong et al., 2019). SMEs are catalysts for the provision of quality products (Katonáné et al., 2018); they have potentials to enhance progress since they are the backbone of development and industrialization of economies (Okafor, 2020).

In most countries SMEs has a large proportion of a countries work force, because they create employment opportunities. The Organization for Economic Cooperation and Development (OECD, 2017) reports that 98% of businesses in OECD countries are represented by SMEs, they create 70% of employment opportunities, 45% of net total employment and 33% of Gross Domestic Product (GDP) in developing countries. SMEs in Nigeria constitutes about 80% of total number of businesses and employees 75% of the workforce (PWC MSMEs survey, 2020).

In Nigeria however, Oyelaran (2010) posits that SMEs contribute approximately 1% of the country's GDP compared to 40% in Asia and 50% in the USA. This implies that SMEs in Nigeria face challenges that hamper their performance. SMEs contribute about 57% to GDP of developing countries like South Africa (Gamba, 2019; OECD, 2017); and about 70% to the GDP of Ghana (Emieze 2017; Abor & Quartey 2010). However, Micro Small and Medium Enterprises (MSMEs) as a single unit, contributes 49.78% to GDP in Nigeria (SMEDAN/NBS, 2017). MSMEs account for 99.82%, out of which SMEs account for only 0.18%, which implies that SMEs only contribute 1% of the GDP in Nigeria (Oyelaran, 2010 & Banji, 2020). This suggests that there are issues behind the slow growth of SMEs in Nigeria. Based on this, it is clear that the contribution of SMEs to Nigeria's GDP is very poor.

SMEs in Nigeria die within their first five years of existence while some go into extinction between the sixth and tenth year. Only a portion of about five to ten per cent pull through, thrive and grow to maturity stage as is expected (Gumel, 2019). The high rate of failure of Nigerian SMEs also signifies that SMEs perform below their potentials (Obim & Atsaye, 2020; SMEDAN/NBS, 2017). Adebiyi et al. (2021) and Okon (2018) attributed poor performance of SMEs and low GDP contributions in Nigeria to numerous challenges, including outdated technology, difficulty in accessing useful and adequate information, and weak application of supply chain management practices (SCMP).

Healthy supply chain management practices enhance SME performance (Ateke & Nwiepe, 2017). SCMP revolves around efficient flow of goods, service, information and money to the business with the aim of providing right product to right customers at the right cost, right time, right quality and quantity (Thoo et al., 2014). It provides flexibility and swiftness in responding to consumer demand shift without cost overlay in resource utilization (Curto & Gaspar, 2021).

SMEs in Nigerian are bedeviled with scarcity of raw materials, high cost of production, and transporting finished goods to final destinations (Federal Ministry of Labor and Productivity, office kaduna,2022; Jacobs, 2018; Raji, 2018). This suggests that the identification and adoption of appropriate SCMP could rewrite the success story of SMEs in Nigeria.

Healthy SCMP like strategic supplier partnerships and customer relationship management could enhance performance of SMEs by assisting them to identify needs and requirement of present and prospective customers (Abeh, 2017), by creating a system for timely availability of products, avoiding wastes and delays that add up to quality, value, growth, sustainability and competitive advantage of SMEs. Therefore, the present study seeks to examine the link between SCMP and performance of SMEs in Nigeria.

LITERATURE REVIEW

Concept Supply Chain Management Practices (SCMP)
SCM involves company activities aimed at enhancing movement of raw materials from sources of supply through to delivery of finished products to consumers, including sourcing and procurement, production scheduling, order processing, inventory management, transportation,

warehousing and customer services (Azevedo et al., 2012, as cited in Ateke & Didia, 2017). Thus, SCMP are actions taken by firms to enhance their ability to adapt and respond to changing market conditions; and also achieve competitive edge in the volatile marketplace (Tan et al., 2002).

SCMP influence the ability of firms to design, develop and promptly deliver customers value. Li et al. (2006, as cited in Ateke & Didia, 2017) states that SCMP are strategic essentials for firms in this era of time-based competition because they influence the whole supply chain, essential parts of it, or key processes in it. As the operating environment get more challenging, the demand on firms to improve their business operations in order to remain competitive also gets stronger. SCMP have the potential to stand firms out of the competition (Lori & Daniel, 2011). SCMP rely on business processes and structures that facilitate speed, adaptation and robustness. It is thus multifarious. In this study, we focus on strategic supplier partnership and customer relationship management as dimensions of SCMP.

Strategic supplier partnership
Firms operate in an increasingly volatile environment, hence, seek partnerships and more result-oriented information links with suppliers and internal operating processes. Supply chain activities have relied more on information technologies that enables cooperative arrangements (Power, 2005). The increased complexity that characterize today's business environment requires firm to gain access to resources (human skills, technical competence and knowledge about customers, competitors and regulatory frameworks), if they must remain in business (Yildirim & Cakar, 2015).

Ateke and Nwiepe (2017) however, argue that these resources are often not within the reach of individual firms. Thus, developing collaborative relationships that integrates the skills and capabilities of each firm in order to improve competitiveness is one strategic avenue firms can exploit, to surmount environmental challenges (Baker et al., 2005). Strategic supplier partnership is related to an alliance between two or more firms to facilitate each other in core areas such as research, product manufacturing, marketing and distribution. Strategic supplier partnership results in greater information flow, low-level uncertainty and better performance of the company (Khali et al., 2019).

Strategic supplier partnership may involve resource sharing and risk sharing arrangements that give firms the advantage of withstanding threats and other uncertainties, by offering firms the opportunity to access resources that are otherwise not within the reach of individual firms (Ateke & Didia, 2017). Strategic supplier partnership enables value creation and transfer processes between upstream suppliers and downstream end-users. Gunasekaran and Yusuf (2002) aver that such partnership allows firms to operate in seamless chain along which tangible and intangible, as well as traditional and digital assets flow freely; and leads to synergy and asset optimization.

Customer Relationship Management (CRM)
By paying closer attention to customers, firms could enhance their processes, and deliver better service at lower costs (Fasanghari & Chaharsooghi, 2008, as cited in Ateke & Didia, 2017). In the past, firms depend more on their competences and resources to design their business operations, processes and products; rather on information from or about customers. However, the marketing concept has increasingly challenged firms' to interact with customers, and also, to incorporate customers' information in the efforts to engineer superlative benefits for both the firm and customers (Ateke & Didia, 2017).

CRM has thus become an essential aspect of business strategy aimed at tailoring management decisions towards customer-centrism (Abu Amuna et al., 2017). This suggests that CRM involves collecting and accumulating information related to customer so as to provide effective and efficient services to customers. CRM is a complete process and strategy that allows an organization to retain, acquire, identify, and nurture profitable customers by constructing and sustaining long-term relationships with them (Adikaram, 2016; Oluseye & Emmanuel, 2014; Wahab et al., 2011). CRM is also a way of looking into customer complaints, building lasting interaction with customers, to enhance customer satisfaction.

Concept of SMEs Performance

Performance is a fundamental area of interest in any organization that has been studied for a long time (Aboazoum et al., 2015). Lebas and Euske (2002) defined performance as "doing today what will lead to measured value outcomes tomorrow." A firm's performance is an important dependent variable in business research (Rauch et al., 2007). The performance of a firm can be viewed from several different perspectives, and various aspects can jointly be considered to define firm performance. Assessing a firm's performance and its measurement is difficult, because performance refers to several organizational outcomes, which include both subjective and objective elements.

SME performance basically measures the extent of the performance of a firm either increase or decrease measure in financial and non-financial indicators. However, as performance measurements are used at each level of the firm (Fakhri et al., 2009). SME performance in this study represent financial and non-financial performance pointers, including customer satisfaction, growth, sustainability and quality.

Supply Chain Management Practices and SMEs Performance

The fundamental principle of SCMP involves system that integrate thinking of material flows from producers of raw materials down the chain to final consumers (Mukhamedjanova, 2020). The contemporary assessment of SCM focuses on partnership with suppliers, procedure for outsourcing, solidifying cycle time, continuous process flow, as well as technology and information sharing (Ibrahim & Hamid, 2014).

Also, procuring quality and maintaining relationship with customers and other activities undertaken in an organization to promote effective management of its supply chain are all part of the process. In this age of globalization, SCM experts actively operate at the hub of the organization, interacting regularly with other departments in the firm, including sales and marketing, finance, and operations, and with suppliers and customers located around the world (Kalu & Njoku, 2015).

Lenny Kohet al. (2007) conducted a study to determine the underlying dimensions of SCMP and to empirically test a framework identifying the relationships between SCMP and performance of SMEs in Turkey. Data was collected from a sample of 203 manufacturing SMEs in Turkey. The research framework was tested using partial least squares method, the results indicate that SCMP have direct positive and significant impact on performance of SMEs.

Empirical studies have been carried to unlock the connection between SCMP and firm performance in a rapidly changing business environment mostly in less developed countries, (Gudda & Deya, 2019; Mutuera & Iravo, 2019). SCMP in terms of strategic supplier partnerships and CRM enhances management making decision based on available information within the organisation (Abu Amuna et al., 2017). These practices enable firms to collect and

accumulate information related to suppliers and customers in order to provide effective and efficient services.

SCMP encompass a complete process and strategy that allows an organization to retain, acquire, identify, and nurture profitable suppliers and customers by constructing and sustaining long-term relationships with them (Adikaram, 2016; Oluseye & Emmanuel, 2014; Wahab et al., 2011). In view of the forgoing, we hypothesize as follows:

Ho1: SSP does not have significant effect on SMEs performance in Kaduna State.
Ho2: CRM does not have significant effect on SMEs performance in Kaduna State.

Information Technology Capability as a Moderator
Ross et al. (1996) defined IT capability as a firm's ability to assemble, integrate, and deploy IT based resources. Bharadwaj (2000) defines IT capability as a firm's ability to mobilize and deploy IT-based resources in combination or co-present with other resources and capabilities. In short, the IT capability is embedded within the fabric of the firms. IT capability is a firm's ability to acquire, deploy, combine, and reconfigure IT resources in support and enhancement of business strategies and work processes. (Lu & Ramarmurthy, 2011)

IT capability has the potential to improve the performance of organizations (Nabeel - Rehman & Nazri, 2018). While there is still scarcity of studies on how IT capability directly affect performance of SME (Azyabi, 2017), SCM literature suggests that IT- capability may enhance growth and sustainability of firms. Melián-Alzola et al. (2020) examined the relationship between IT capability and organizational agility. The study suggested that different capabilities may yield different results, another set of capabilities should be applied in future studies, their study was in developed country.

This capability is primarily considered a critical factor that enables firms to acquire and apply knowledge as well as information during collaboration (Wade & Hulland, 2004). Inter-firm collaboration focuses on the interchange of resources; therefore, IT capability plays a facilitating role in generating benefits for parties involved (Liu et al., 2015).

The basis of gaining competitive advantage and enhanced organization performance comes with application of IT capability, the place of IT capabilities in enhancing SME performance is well established in the literature. Various IT studies opined that IT capabilities provide a basis of gaining sustainable growth, competitive advantage and enhancing general performance of a firm. IT capability is considered as one of the major factors in SCM and plays a critical factor to improve performance.

In lieu of the foregoing, the study hypothesizes as follows:

Ho3: IT Capability does not significantly moderate the relationship between customer relationship management and SMEs performance in Kaduna State.
Ho4: IT Capability does not significantly moderate the relationship between strategic supplier partnership and SMEs performance in Kaduna State.

```
┌─────────────────────────┐
│      Supply Chain       │
│   Management Practices   │
└─────────────────────────┘
        │
┌─────────────────────────┐
│    Strategic Supplier    │
│       Partnership        │            ┌──────────────────┐
├─────────────────────────┤  ────────►  │  SME Performance  │
│  Customer Relationship   │      ▲      └──────────────────┘
│       Management         │      │
└─────────────────────────┘      │
                    ┌──────────────┐
                    │ IT Capability │
                    └──────────────┘
```
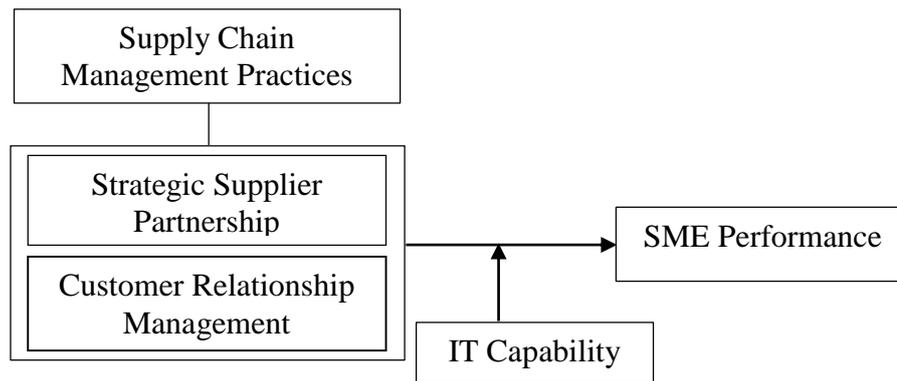
Fig. 1: Research model

Theoretical Foundation of the Study: Resource Based Theory
Wernerfelt (1984) postulated the resource-based view (RBV) theory, as a basis for the competitive advantage of a firm. The theory essentially holds that the competitive advantage of firms primarily lie in their application of a bundle of valuable tangible and intangible resources at their disposal (Kozlenkova et al., 2014). To transform a short-run competitive advantage into a sustained competitive advantage requires that these resources are heterogeneous in nature and not perfectly mobile. Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable without great effort (Kozlenkova et al., 2014).

RESEARCH METHODOLOGY

This adopted a research design which involves collecting data from a study population at a point in time (Wang & Cheng, 2020). The study employed a quantitative methodology which involves the collection and analysis of numerical data to describe a particular construct (Lancaster, 2005). Primary data was collected using questionnaire. The data collected was analyzed using PLS-SEM version 3 statistical method. The study was conducted in Kaduna State. Hence, population of the study comprise five hundred and thirty-nine (539) registered manufacturing SMEs in Kaduna state (SMEDAN, 2022). The selected sample size of the study was mathematically validated which was developed by Dillman et al. (2014) for computing small and large samples as follows:

$$n = \frac{(N*p*q)}{(N-1)\,(\frac{MoE}{z})^2 + (p*q)}$$

Where:
n = is the computed sample size needed for desire level of precision
N = is Population size of the study
P = is the proportion of the population expected to be chosen. However, since the actual number of respondents who may consent to participate in the study is unknown, Dillman, et al. (2014) suggested that using 50/50 chance will be more justifiable than using 80/20 for a more homogenous sample. That is 0.5 will be used instead of 0.80. Using a higher level of precision (0.5) which will require larger sample sizes (Westfall 2009). And equally provides adequate sample size just adequate for the study population.
q = 1−p
MoE = the desired margin of sampling error at 0.05 (5%)
z = the z-score or critical value for the desired level of confidence at 0.05 is 1.96
The said formula can be computed mathematically as follows:

$$n = \frac{(539*0.5*0.5)}{(539-1)\left(\frac{0.05}{1.96}\right)^2 + (0.5*0.5)}$$

$$n = \frac{134}{(538)\,(0.0255102041)^2 + 0.25}$$

$$n = \frac{134}{(538)(0.0006507705) + 0.25}$$

$$n = \frac{134}{0.600114529}$$

$$n = 223$$

However, Israel (2013) suggests that in order to provide for nonresponse, the sample size can be increased by 10% to 30% of the sample size for the purpose of anticipated non-response bias and none return of completed questionnaire. This will also take care of other unavoidable errors such as incorrect filling and failure of some respondents to return the questionnaires (Israel, 2013).

Thus, the sample size was increased by 30% thereby making the total sample size to become 289, Overall, a 5-point Likert-type scale ranging from '1' "Strongly Disagree" to '5' "Strongly Agree" was used to measure the discussed constructs. The respondents were asked to rate their SME indicating the extent of perceived agreement or disagreement with the statements under each construct. The scale for measuring ITC was adapted from the study of (Nabeel-Rehman & Nazri, 2018). The measurement scale for SCMP with 11 items adapted from previous study of (Li *et al*. (2005). This measurement has been validated across different studies and result indicates a satisfactory level of validity and reliability.

Prior to the main analysis, this study ensured assumptions about outlier check, normality and multicollinearity (Hair et al. 2017). After successfully satisfying all assumptions, we adopted the partial least squares (PLS) path modeling method. The method is used because the study is aimed at predicting the dependent variable and **PLS** is also a non-parametric technique (Ruiz et al. 2013). In order to validate and evaluate the research model, Hair et al. (2017) suggested using two stages of evaluation. They are measurement models (also called external models in PLS-SEM) and structural models (also called internal models in PLS-SEM).

Measurement Model
In order to evaluate the measurement model of this study, the researchers evaluated the reliability of the individual items measuring each potential structure, the internal consistency reliability (i.e, the composite reliability), the discriminant validity, and the convergence validity of each reflective construct (Hair et al., 2017). Although, Hair et al. (2017) recommends using an outer loading of 0.70 as reliable and acceptable, they argued that an indicator should be deleted only if deleting the item increases the constructs AVE or Composite reliability.

Table 1: Measurement Modal

Constructs	Indicators	Outer Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Customer Relationship Management	CRM1	0.78	0.75	0.86	0.66
	CRM4	0.79			
	CRM5	0.87			
IT Capability	ITC1	0.62	0.84	0.86	0.48
	ITC2	0.64			
	ITC3	0.63			
	ITC4	0.72			
	ITC5	0.75			
	ITC6	0.78			
	ITC9	0.67			
SME Performance	SP1	0.69	0.87	0.90	0.61
	SP2	0.77			
	SP3	0.74			
	SP4	0.87			
	SP5	0.83			
	SP6	0.78			
Supplier Strategic Partnership	SSP1	0.79	0.80	0.87	0.62
	SSP3	0.82			
	SSP4	0.77			
	SSP5	0.77			

Source: Output of data analyses (2022).

In addition, the composite reliability and Cronbach's alpha value were evaluated to determine the internal consistency of the reflective structure (between 0 and 1), the higher values represent higher reliabilities. In conclusion, all of these constructs are reliable because their respective composite reliability and Cronbach alpha values are above the threshold of 0.70. Again, the convergent validity was also met as all the AVE values were all above 0.50.

Furthermore, to ascertain the discriminant validity, Duarte and Amaro (2018) proposed the use of multitrait-multimethod (MTMM) matrix as a more adequate and sensitive approach to detecting discriminant validity.

Table 2: Heterotrait-Monotrait Ratio (HTMT)

Indicators	CRM	ITC	SP	SSP
CRM				
ITC	0.24			
SP	0.51	0.29		
SSP	0.79	0.29	0.59	

Source: Output of data analyses (2022).

As can be seen from Table 2 above, the HTMT statistics are given based on the correlation between their reflective construction items. Since the HTMT value is lower than the 0.85 threshold proposed by (Hair et al., 2017), the reflective latent variable of this study has discriminant validity.

Structural Model

After all the requirements of the measurement model are met, the structural model is evaluated. The first part of the structural model evaluation involves the testing of theoretical relationships. Specifically, the direct and moderating effect was assessed on 289 cases using 5000 bootstrap samples (Hair et al. 2017).

Table 3: Structural Model

R/Ship	Beta Value	Std. Dev.	T Statistics	P Values
CRM -> SP	0.15	0.07	2.11	0.04
ITC -> SP	0.21	0.09	1.99	0.05
ITC*CRM -> SP	0.17	0.09	2.17	0.03
ITC*SSP -> SP	0.17	0.10	1.67	0.10
SSP -> SP	0.35	0.07	5.04	0.00

Source: Output of data analyses (2022).

The bootstrapping result presented in table 3 shows that both CRM and SSP have significant positive relationship with SP. This implies that the higher the supply chain management practices of CRM and SSP, the higher the SMEs performance. On the moderating relationship, ITC*CRM shows significant positive relationship with SP (Beta=0.17, P=0.03) while. ITC*SSP shows an insignificant relationship with SP (Beta=0.17, P=0.10). This implies that the interaction between CRM and IT is stronger than that of SSP. All the hypotheses were assessed at 5% level of significance.

Effect Size and Predictive Relevance

The effect size outlines the potential effects of specific exogenous latent variables on endogenous variables. The general criteria for evaluating $f2$ includes the values of 0.02(small), 0.15(medium), and 0.35(large) (Cohen, 1988). The predictive correlation of the variables was assessed using a cross-validated redundancy criterion (Q2) (Hair et al., 2017).

Table 4: f-Square, R-Square and Q-square

Constructs	TP	Effect Size	
CRM	0.023	Small	
SSP	0.150	Medium	
R-Square			
Construct	R Square	R Square Adjusted	
SP	0.308	0.298	
Q-Square			
Construct	SSO	SSE	Q² (=1-SSE/SSO)
SP	2,706.00	2,198.34	0.188

Source: Output of data analyses (2022).

As can be seen from table 4 above, based on the standards highlighted by Cohen (1988) for direct relationship respectively, it can be seen that CRM and SSP have small and medium effect on SP respectively. It also shows that all the variables accounted for 30% variance in SMEs performance which is considered moderate according to Chin (1998). Consequently, since the Q² is greater than zero, it is assumed to have predictive relevance because higher Q² represents greater predictive relevance (Duarte & Roposo, 2010).

CONCLUSION AND RECOMMENDATIONS

Conclusion of the study predominantly contains the following evidences: Firstly, there is an imperative connection between ITC and SME performance. Extraordinary ITC is an important condition for the improvement of firm performance. Secondly, SCMP affects SME

performance positively which indicates that, SCMP (CRM) relationship derived from a customer is a prerequisite to firm performance. This simply means SCMP (CRM) can lead to performance, henceforth the positive effects on SME performance, can be influenced by a third variable, which according to this study is ITC. As this ITC also plays a significant role in increasing firm performance.

Thirdly, the moderating effect of ITC on the relationship between SCMP and SME performance depicts the effect on performance is significant. This study concludes that ITC moderates the relationship between SCMP and SME performance. In addition, in a competitive and volatile business environment, customers often are looking for good value, quality and quantity for their money. As such, a good ITC is vital in order to ensure that SME perform as is expected using the set principles of SCMP especially CRM.

This study made some vital recommendations based on the findings, which includes the following: The results demonstrate that CRM plays an important role in explaining how SME can improve performance. It is, therefore, vital for SME managers to become aware of the strategic role of SCMP variables and to set up extensions and enhancement plans aiming at improving performance. Looking at the positive impact of ITC on SME performance, it is recommended that SME provide quality products and timely delivery to enhance efficiency and effectiveness.

The results show that ITC positively and significantly moderates the relationship between SCMP (CRM) and SME performance. Given this finding, SME managers should be encouraged to take advantage of ITC resources available to them by designing appropriate strategies to relate with their customers to enable them predict and follow up on post sales services.

REFERENCES

Abeh, O. (2017). Problems and prospects of small and medium scale enterprises (SMEs) growth and development in Nigeria: A Study of selected SMEs in Delta State. *International Journal of Scientific Research in Education, 10*(3), 278-294.

Aboazoum, H. M. E., Nimran, U., & Al-Musadiep., M. M. (2015). Analysis of factors affecting employees' job performance in Libya. *Journal of business and management 17*(1).

Abu-Amuna, Y. M., Al-Shobaki, M. J., Abu Naser, S. S., &. Badwan, J. J. (2017). Understanding Critical variables for customer relationship management in higher education institution from employees' perspective. *International Journal of Information Technology and Electrical Engineering ITEE Journal   Information Technology & Electrical Engineering ISSN: - 2306-708X*

Ateke, B. W., & Nwiepe, N. M. (2017). Agile supply chain management practices and competitiveness of SMEs: A conceptualization. *International Journal of Social Sciences and Management Research*, *3*(7), 1-10.

Ateke, B. W., & Didia, J. U. D. (2017). Agile supply chain management practices for fficient service delivery. *International Journal of Social Policy, Management and Administration*, *5*(2), 31-50.

Baker, S. M., Faircloth, J. B., &. Simental, V. (2005). Perceptions of University-Corporate partnership influences on a brand. *Journal of Marketing Theory and Practice*, *13*(2), 32-46.

Bharadwaj, A.S., (2000) a Resource-based Perspective on Information Technology Capability and Firm Performance: an Empirical Investigation. *MIS Quarterly, 24*(1), 169-196,

Curto, J. P, & Gaspar P. D. (2021). Traceability in food supply chains: Review and SME focused analysis, *AIMS Agriculture and Food*, 6(2), 679–707

Emieze, S. (2017). *Prospects and Challenges of SMES in 21st Century Africa*. Thesis Centria University of Applied Sciences Business Management.

Gudda, K. O., & Deya, J. (2019). The effect of supply chain management practices on the performance of Small and medium sized enterprises in Nairobi County, Kenya. *The Strategic Journal of Business & Change* Management, 6 (2), 1870 –1886.

Gumel, B. I. (2019). Mitigating the challenges of small and medium enterprises in Nigeria. *SEISENSE Journal of Management*, 2(3), 82-99. doi: 10.33215/sjom.v2i3.12

Gunasekaran, A., 8c Yusuf, Y. (2002). Agile manufacturing: A taxonomy of strategic and technological imperatives. *International Journal of Production Research*, *40*(6), 1357-1385.

Khalila, M.K., Khalilb, R. & Khanb, S.N., (2018). A study on the effect of supply chain management practices on organizational performance with the mediating role of innovation in SMEs *homepage: www.GrowingScience.com/uscm*

Khan, A. & Siddiqui, D.A. (2018). *Information Sharing and Strategic Supplier Partnership in Supply Chain Management: A Study on Pharmaceutical Companies of Pakistan Karachi*, PAKISTANhttps://doi.org/10.18034/abr.v8i3.

Li, G., Yang, H., Sun, L., & Sohal, A. S. (2009). The impact of IT implementation on supply chain integration and performancee. *International Journal of Production Economics* 120(1):125-138.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T.S. & Rao, S.S. (2005). Development and validation of a measurement for studying supply chain management practices, *Journal of*

Liu, H., Huang, Q. & Wei, S. (2015). The impacts of IT capability on Internet-enabled supply and demand process integration, and firm performance in manufacturing and services *International Journal of Logistics Management*. DOI:10.1108/IJLM-11-2013-0132

Lori S. C., & Daniel, R. H. (2011). The moderating effect of supply chain role on the relationship between supply chain practices and performance. *International Journal of Physical Distribution & Logistics Management, 41*(2), 104-134.

Lu, Y. & Ramamurthy, K. (2011). Understanding the link between information technology capability and organizational agility: An Empirical Examination. *MIS Quarterly, 35(4):*931-954.

Melián-Alzola, L., Fernández-Monroy, M. & Hidalgo-Peñate, M. (2020). Information technology capability and organisational agility: A study in the Canary Islands hotel

Mukhamedjanova, K. (2020). Concept of Supply Chain Management. *Journal of Critical Reviews*, *6*(3), 933-945.

Mutuerandu, M. N. and Iravo, I. (2014). Impact of Supply Chain Management Practices on Organizational Performance: A Case Study of Haco Industries Limited (Kenya). *IOSR Journal of Business and Management, 9*(5).

Nabeel-Rehman, R, & Nazri, M. (2019). Information technology capabilities and SMEs performance: An understanding of a multi-mediation model for the manufacturing sector. *Interdisciplinary Journal of Information, Knowledge, and Management*. https://doi.org/10.28945/4429

NBS/SMEDAN, (2017). *National Survey of Micro Small & Medium Enterprises* (MSMEs) 2017. Retrieved on 22/03/2021 from https://www.smedan.gov.ng.

Obim, E. N., & Atseye, F. A. (2020). Challenges and prospects of the growth of small and medium scale enterprises (SMES) in Nigeria. *International Journal of Social Science and Economic Research, 2(12).*

OECD, (2017). *Enhancing the contributions of SMEs in a global and digitalised economy*, https://www.oecd.org/mcm/documents/ C-MIN-2017-8-EN.pdf.

Okafor, C. O. (2020). Microfinance banks and performance of small and medium scale enterprises in Nigeria. *Journal of Applied Economic Sciences.* DOI: https://doi.org/10.14505/jaes.v15.3(69).15

Okon, E. O. (2018). MSMEs performance in Nigeria: A Review of supply chain collaboration challenges. *International Journal of Marketing Research Innovation, 2*(1).

Oluseye, O., Tairat, T., Emmanuel, O. (2014). Customer relationship management approach and student satisfaction in higher education marketing. *Journal of Competitiveness,*

Oyelaran, B. (2010). *Financial system strategy: Challenges and prospects.* FSS 2020 International Conference SME. National Open University of Nigeria. 1–39.

Power, D. (2005). Supply chain management integration and implementation: A literature review *Supply Chain Management: An International Journal*, *10*(4), 252-263.

Rauch, A., Unger, J. M. & Rosenbusch, N. (2007). Entrepreneurial stress and long-term survival: Is there a causal link? *Frontiers of Entrepreneurship Research*.

SMEDAN, (2017). *Survey report on Micro, Small, and Medium Enterprises (MSMEs) in Nigeria. Abuja: Small and Medium Enterprises Development Agency of Nigeria.* National Bureau of Statistics.

SMEDAN/NBS Survey, (2013). *SMEDAN and National Bureau of Statistics Collaborative Survey: Selected Findings 2013.* Retrieved from https://www.smedan.gov.ng/images/PDF/2013-MSME-Survey-Summary-Report.pdf.

Thoo, A.C., Sulaiman, Z. Choi, S.L. & Uha, K. (2017). Understanding Supply Chain Management Practices for Small and Medium-Sized Enterprise. *Materials Science and Engineering.* doi:10.1088/1757-899X/215/1/012014 MOIME 2017

Wade, M. & Hulland, J. (2004). Review: The resource-based view and information systems research: Review, extension, and suggestions for future research. *MIS Quarterly*.

Wahab, S. Jusoff, K. Al Momani, Kh. Noor, N. & Zahari, A. (2019). "The influence of usability and enjoyment on electronic customer relationship management performance in Jordan mobile communication services", *International Journal of Management and Business Studies,* 9(7), 001-007.

Wang, Z., Mahmood, M. R., Imran, H. U., Abbas, Q., & Mohsin, M. (2020). Multidimensional perspective of firms' IT Capability between digital business strategy and firms' efficiency: A case of Chinese SMEs. DOI: 10.1177/2158244020970564 journals.sagepub.com/home/sgo

Wang, Z., Mahmood, M. R., Ullah, H., Hanif, I., Abbas, Q., & Mohsin, M. (2020). Multidimensional perspective of firms' IT capability between digital business strategy and firms' efficiency: A Case of Chinese SMEs. DOI: 10.1177/2158244020970564 *journals.sagepub.com/home/sgo*

Yildirim, I., & Cakar, L. R. (2015).A study on the collaboration opportunities between Universities and insurance industries in Turkey. *Advances in Social Sciences Research Journal*, *2*(9) 163-172.