COVID-19 SUPPLY CHAIN DISRUPTIONS AND SMEs' EXPORT PERFORMANCE IN ABIA STATE, NIGERIA

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Abstract

The Covid-19 pandemic that originated from China has disrupted supply chain across the globe and caused all round reduction in business activities. This study examined the effect of Covid-19 supply chain disruptions on SMEs' export performance in Abia State, Nigeria. The research design was the survey method. The population for the study was 14,620 comprising operators of textile and leather SMEs in industrial clusters in Aba, Abia State, Nigeria and with the Taro Yamane's formula, a sample size of 400 was obtained. Convenience sampling method was adopted for this study. The questionnaire used in the study was validated by two research experts in measurement and evaluation and one in marketing. Regression analyses showed that Covid-19 supply chain disruption was a negative and significant factor affecting export sales growth and export intensity of the studied SMEs in Abia State of Nigeria. The recommended amongst others that SMEs during the post-Covid-19 period should form strategic inter-firm alliances in order to sustain export networks. Forming inter-firm alliance can benefit the SMEs in information sharing, corporate financing and sourcing of materials, corporate exports, etc. Working as a team of interconnected firms can equally help the firms build a culture of resilience for crisis seasons.

Keywords: Covid-19 Pandemic, Supply Chain Disruption, Export Performance, SMEs.

Introduction

Background of the Study

Covid-19 pandemic that originated from China has continued to create substantial challenges to countries of the world and business enterprises. Before the breakout of the pandemic, Nigeria's borders to neighbouring Africa countries were closed to curb illicit movement of goods. The Covid-19 outbreak ensured that the borders remained closed as a measure to contain the incursion and spread of the virus in Nigeria. These measures disrupted supply chains and affected the performance of export-oriented SMEs in the country leading to declines in international demands for export goods and services fell dramatically, while some of the export goods manufacturing firms were shut down. The Covid-19 pandemic has continued to disrupt supply chains thereby affecting the performance of export SMEs and some scholars believe that it will erode the gains made towards trade liberalization over the past few decades (Agarwal & Mulenga, 2020).

The role that small and medium scale enterprises (SMEs) play in economic development cannot be overemphasized. Abubakar, (2012), Ibeh, (2004), and Leonidou, (2004) have all identified the significant roles played by SMEs in

economic development and they create opportunities to boost Nigeria's economy through exports. The effectiveness of SMEs in this regard depends on their ability to overcome supply chain disruptions to their success through the effective combination of strategy, planning and diligent execution of projects (Maduforo, 2016).

Covid-19 disruptions on supply chain have gained the attention of scholars and industry experts (Choi, 2020; Lin, et al. 2020; Ivanov, 2020; Sarkis, et al. 2020). The pandemic is already impacting the supply chains on a large scale (Lin et al. 2020). Before the outbreak of the Covid-19 pandemic, export-oriented SMEs in Nigeria have constantly battled with broken supply chains. What the pandemic did was to compound these challenges and others. One of the key features of the modern world economy is the reliance on supply chains that span the globe. However, with this reliance comes increased recognition that such widespread supply chains are vulnerable to disruption (ShakirUllah, Huaccho & Burgess, 2014). Schmidt and Raman (2012) defined supply chain disruptions as an unplanned event that adversely affects a firm's normal operations. Disruptions can take different forms and can be caused by natural forces like earthquakes and disease outbreaks or man-made such as terrorist attacks or wars (ShakirUllah, Huaccho & Burgess, 2014).

About 96% of Nigerian businesses are SMEs, but the sector only contributes barely 7% to the nation's total export (Oji (2017). Abia State has one of the largest concentrations of SMEs in Nigeria. The State has key SMEs in finished leather and garment production in Aba its commercial hub. The Aba shoe and leather products SMEs are believed to have products that their quality is comparable to those of Italy (Nwaoguji, 2014). SMEs in Aba, Abia State according to statistics export over one million pairs of shoes and all kinds of leather products to other parts of Africa on weekly basis, although unofficially through indirect exports (Offurum, 2017). Their major export destinations are neigbouring African countries like Cameroon, Ghana, Ivory Coast, Gabon, and others. However, despite leading the African textile and leather products market, these export-minded SMEs are yet to have a presence outside the African continent, blaming it to many limiting export constraints. For many SMEs in Abia State of Nigeria, most of their raw materials come from China and their export destinations cut across the African continent and beyond. As the Covid-19 pandemic occurred, most of their supply and export demand sources have been cut off which without doubt has impacted negatively on their export performance. There have also been challenges on the determination of production levels, transport capacity, and other vital factors (Kumar & Mishra, 2020).

However, as the measures to contain the Covid-19 pandemic are being relaxed across the federation, export-oriented SMEs must find ways of overcoming the supply chain disruptions that the pandemic places on their export performance. There is therefore the need to enhance SMEs export performance especially in the post Covid-19 pandemic era. This work is there aimed at providing directions for improvement of export activities of SMEs in Abia State during the post Covid-19 pandemic period.

Statement of Problem

There is no doubt that the Covid-19 pandemic has ravaged economies and affected cross-border activities of many countries. The most hit by this pandemic

are the SMEs who have suffered from raw materials shortages emanating from supply chain disruptions, halt in productions arising from economic lockdowns, unemployment, amongst others. In Abia State of Nigeria, many SMEs are indirectly involved in export activities. Their active participation in export marketing is being hindered due to numerous constraints emanating from global supply chain disruptions that are beyond their control. And with the Covid-19 containment measures by the federal government, which include border closure to neighbouring countries, supply chain disruptions have continued to worsen. This situation has led to reductions in export intensity, poor export sales revenues, and minimal size of market share of the available export market.

Objective of the Study

The main aim of this study was to examine the effect of Covid-19 supply chain disruptions on SMEs' export performance in Abia State, Nigeria.

The specific objectives were to;

i. examine the effect of Covid-19 supply chain disruptions on export sales growth of SMEs in Abia State, Nigeria;
ii. ascertain the effect of Covid-19 supply chain disruptions on export intensity of SMEs in Abia State, Nigeria

Research Questions

In order to achieve the objective of the study, these research questions were answered;

i. What is the effect of lack of cap Covid-19 supply chain disruptions on export sales growth of SMEs in Abia State, Nigeria?
ii. Does lack of Covid-19 supply chain disruptions have any effect on export intensity of SMEs in Abia State, Nigeria?

Statement of Hypotheses

The following hypotheses were formulated and tested in the study.

H_{O1}: There is no significant effect of Covid-19 supply chain disruptions on export sales growth of SMEs in Abia State, Nigeria.

H_{O2} Covid-19 supply chain disruptions do not have any significant effect on export intensity of SMEs in Abia State, Nigeria

Review of Related Literature

Small and Medium Scale Enterprises (SMEs)

Small and Medium-Scale Enterprises (SMEs) are generally privately owned organizations set-up for the purposes of producing goods or services for profit (Oladimeji & Muhammed, 2017). The definitions of SMEs according to Etuk, Etuk and Baghebo (2014) are usually derived in each country, based on the role of SMEs in an economy, policies and programs designed by particular agencies or institutions empowered to develop SMEs. Etuk, Etuk and Baghebo (2014) thus added that SMEs are defined based on certain criteria which include, turnover, number of employees, profit, capital employed, available finance, market share and relative size within the industry. The reliance on the criteria identified above for the categorization of business enterprises under SMEs still varies across the globe. There is no compromise as to the exact number of employees, size of capital employed, sales volumes or value of assets that qualify a business enterprise to be SME.

Relying on the number of employees/staff criterion, for instance, some countries describe all enterprises that have less than 100 employees as SMEs,

others are in favour of 50 employees and some expand the net to include all firms who have less than 200 employees. The Federal Government of Nigeria in 1990 defined small-scale enterprises for the purpose of a commercial loan as those enterprises with capital investment not exceeding N2 million (excluding cost of land) or a minimum of N5 million (Aremu & Adeyemi, 2011). Small and Medium Industries Equity Investment Scheme (SMIEIS) defined SMEs as those "enterprises with a total capital employed not less than N1.5 million, but not exceeding N200 million, including working capital, but excluding cost of land and / or with a staff strength of not less than 10 and not more than 300.

SMIEIS (2006) claimed that SMEs are those enterprises that has a total capital employed not below one million five hundred thousand but not exceeding two hundred million including working capital but excluding cost of land, with an employee strength of not below ten and not above three hundred. In Nigeria, SMEs cover economic activities within all sectors. It is clear from the various definitions given so far that there is no single concept that constitutes SMEs. The definitions vary across industries and the globe.

Covid-19 Pandemic

The COVID-19 pandemic which originated in Wuhan, China, in December 2019 has so far been reported in over 209 countries and territories, and as of 15th October 2020, has resulted in 1,093,140 deaths (European Centre for Disease Prevention and Control, 2020). The pandemic has led to severe global socioeconomic disruption, the postponement or cancellation of activities ranging from sporting to religious, political, cultural events, and widespread shortages of supplies exacerbated by panic buying (Turner & Akinremi, 2020).

Nigeria recorded her first case of the dreaded coronavirus (COVID-19) disease on February 27, 2020, from an Italian citizen that visited the country (Musa & Aifuwa, 2020). This led the federal and state governments into moves to protect citizens from contacting the virus having seen the rate of transmission and mortality of the virus in other countries of the world. Also, civil societies and government agencies began to embark on public enlightenment campaigns on proper hygiene and the need for social distancing in public places in order to avoid contacting the virus (Olapegba, *et. al.* 2020). The Nigeria Centre for Disease Control (NCDC), began partnering with states governments to contain spread of the virus through contact tracing and tracking of victims who might have made contacts with confirmed cases (Musa & Aifuwa, 2020). To further prevent the spread of the virus, the Federal government of Nigeria on March 30, 2020 took a drastic decision to close all national borders and airspace, schools, worship centres and other public centres and placed the Federal Capital Territory (FCT), Lagos and Ogun State on total lockdown for fourteen (14) days (Olapegba, *et. al*. 2020). They later extended the lockdown to May 3, 2020. COVID-19 testing laboratories were set up in Lagos State, Edo State and the FCT, and state governments opened isolation centres and imposed dusk to dawn curfews in their territories (Musa & Aifuwa, 2020).

These measures taken by the federal and State governments began to have negative effects on citizens as well as businesses in the country. They coerced people to stay at home; businesses and offices were closed, excluding the health

care sector and those on essential services like pharmaceutical shops, food and water vendors. This led to loss of job across the country accompanied with high crime rates in states on total lockdown (Aifuwa, Musa & Aifuwa, 2020). On the bright side, the decision and measure yielded a high compliance rate from citizens, as they frequently engaged in hand washing, practiced social distancing and self-isolation, avoided going to work, schools, or crowded area (Olapegba, *et. al.* 2020). Also, most religious leaders in the country stopped large gathering, forbade hand shaking, and directed their members to worship at home and use hand sanitizers where water and soap were not available (Makinde, *et. al.* 2020; Olatunji, 2020). As at 15th October, 2020, Nigeria has 60,982 confirmed covid-19 cases, with 52,194 discharged cases and 1,116 deaths, while 572,705 samples were tested (NCDC, 2020).

Supply Chain Disruptions

Businesses dependent on global sourcing are facing hard choices in crisis management amid the supply chain disruptions brought about by the Covid-19 pandemic. The impact of the Covid-19 pandemic on global supply chains is a major disruption, along the lines of having an earthquake or a tsunami. This is an unprecedented type of disruption. The main target of managing the supply chain is to realize and neutralize the uncertainties in the supply chain. Uncertainties in the supply, process and demand are recognized to have a major impact on the manufacturing function. In the last decade, reasons for supply chain disruptions have been extensively investigated by scholars and industry practitioners. Numerous studies (Nair & Vidal, 2011; Simangunsong, et al. 2012; Khalili, et al. 2017; Yu, et al. 2017) have revealed basic reasons for supply chain disruptions and their impact on supply chain execution and firm performance. Early literature regarding disruption emphasises the need to prevent and protect companies against supply chain disruptions. However, this emphasis has now shifted to a longer-term approach which is to recognise supply chain disruptions and strengthen the companies' preparedness in order to build resilience towards disruption risks (Barker & Santos, 2010; Ergun, et. al. 2010; Schmitt & Singh, 2012).

A number of researchers (Bakshi & Kleindorfer, 2009; Deleris & Erhun, 2003; Ji & Zhu, 2008) believe that the phenomenon of just-in-time (JIT) has worsened the effects of supply chain disruptions. The use of JIT to reduce cost and improve competitiveness may be effective in a stable environment but can be destructive if a disaster strikes due to the JIT system being less flexible (Schmitt & Singh, 2012). Barker and Santos (2010) added to the belief that JIT worsens the effect of supply chain disruptions by using quantitative modelling to investigate how different risk management strategies that involve inventory will affect recovery after a disruption. Their results evidenced that having inventory available can ease some of the burden which the physical disruption has caused to production; whereas this option would not be available if a JIT approach was being adopted by a company.

The literature further provides theoretical ideas which are aimed at preparing a company to reduce the effects of risky events by making a supply chain resilient. One frequently-occurring idea is collaboration by sharing information between the entire supply chain (Cohen & Kunreuther, 2007; Gatignon, et. al. 2010;

Schmitt & Singh, 2012). Lanza et al. (2013) however, added that the weakness in existing business models is because of the reluctance to share information along the supply chain. Despite recognising the need for information sharing to enhance a company's preparedness towards supply chain disruptions, the technicalities in the current literature are limited or non-existent on: how to share information, the channel through which it should be communicated; the method in which it should be used, shared and stored effectively and the difficulties involved in the sharing of information, such as privacy issues wars (ShakirUllah, Huaccho & Burgess, 2014).

OECD (2020) reported a number of challenges that prevented the supply chains going in relation to international trade during the Covid-19 Pandemic. These include;

- Cancellation of passenger flights linked to travel bans which limited the availability of air cargo while urgent shipping of essential goods increased demand, resulting in increases in the price of air cargo. Delivery times also increased.
- Important shipping ports reported year-on-year drops in cargo between 10% and 20% in February (Baschuk, 2020). Over 50 countries changed port protocols, ranging from port closure and quarantine measures to additional documentation requirements and examination.
- At the time the virus struck, large numbers of shipping containers were in Chinese ports, and restrictions on their movement have led to a shortage that has seen the price of containers rise (in some cases considerably), with flow-on effects for the price of cargo, including food products.
- Lockdowns also impacted the availability of labour to unload ships at ports (notably in countries where this is less automated) or raised costs due to increased protective measures for workers.
- Limits on mobility of people and lockdowns affected a variety of trade processes, from physical inspections of goods for SPS, to testing and certification for TBT, to changing how anti-dumping investigations are conducted.

All of these are adding to the time and costs of international trade on products that matter. They will require co-ordinated action amongst governments – and with the private sector – to find solutions to the logistical constraints affecting the ability to get essential products where they are needed most (OECD, 2020). Considering the size of SMEs, they may not have the required knowledge and resources to handle these supply chain disruptions.

Export Performance

The study on the concept of export performance has been on the increase in the extant literature. Export performance is essential to the survival and growth of export firms in diverse ways (Tran, Ho, & Tran, 2015). While past performance motivates managerial strategy actions, present performance signals the effectiveness of management strategy modifications as well as set forth new strategy actions (Lages et al., 2008). The concept has been viewed on different perspectives. Shoham (1996) defined the concept of export performance as the result of a firm's actions in export markets. It is

the extent to which the firm achieves its objectives when exporting a product to a foreign market (Navarro *et al*., 2010).

The varying definitions of the concept of export performance have also led to a disagreement on the variables or indices to measure it. The success of a firm, division, or export venture cannot usually be communicated with a single metric; instead, several perspectives may have to be considered. Moreover, since performance objectives may be incompatible with one another, and improving on one dimension may come at the expense of another, success may be a matter of degree instead of just a yes or no question (Carneiro, et. al, 2011). Traditional economic measures may indicate whether a company has performed well in the recent past, but are no guarantee for continuing success (Barney, 1996). As for market measures, an increase in market share might express such distinct facts as greater acceptance of a product, buying market share by cutting off prices, or investing heavily in promotions.

Nevertheless, Aaby and Slater (1989) grouped export performance variables into four sets: firm characteristics (size, managerial commitment, managerial perceptions), firm competences (technology, market knowledge, market planning, export policy, control systems, quality control, communication skills), export strategy (market selection, use of intermediates, product mix, product development, promotion, pricing), and external environment. Leonidou, et. al. (2002) identified that export proportion of sales or export intensity, export sales growth, export profit level, export sales volume, export market share, and export profit contribution are mostly used measures of export performance. Many other categorizations also exist in the export performance literature.

Theoretical Framework

The Resource-Based View - Barney, (1991)

This work was anchored on the resource-based view (RBV) of Barney (1991). The resource-based view (RBV) is based on the early economic theory, which has since been extended by other scholars (Barney, 1991; Helfat and Peteraf, 2003). The resource-based view provides a theoretical underpinning associated with the export activity based on different aspects of the firm's resources and capabilities (Morgan et al., 2004). The resource-based view sees a firm as a unique bundle of tangible and intangible resources (assets, capabilities, processes, managerial attributes, information and knowledge) that enable the firm to conceive and execute strategies aimed at improving its efficiency and effectiveness (Barney, 1991). The resource-based view contends that the principal determinants of a firm's export performance are its internal organisational resources that are superior in use and difficult to imitate or supplant (Barney, 2001).

The resource-based view in international business has lately become a burgeoning perspective, with contributions from a wide variety of authors and institutions around the world. Firms can be conceptualised under the resource-based view as possessing unique bundles of accumulated tangible and intangible resource stocks. Tangible resources include financial resources and physical resources such as plant, equipment, and raw materials. Intangible resources include reputation, technology, human resources, culture, training, and employee expertise together with their commitment and

loyalty. Roth (1995) further argued that intangible resources could be understood to be characterised by those assets, know-how skills that are difficult to formalise and be reproduced by competitors. Thus, these intangible assets become strategic assets and generate benefits and competitive advantage for the firm. Among these intangible resources owned by firms, managerial capabilities occupy a key place (Barney, 2001). Referring to the assumption that the resources of the firm are heterogeneous and immobile, this study argues that management teams that exploit their resource advantages are simply behaving efficiently and effectively.

The resource-based view further explains how a firm can utilise its superior tangible and intangible resources to formulate and implement strategies for enhanced firm performance in international operations. Managers committed to exporting tend to find such arrangements that can fill their firms' resource gaps through strategic alliances with other domestic or foreign firms. Therefore, managers with a favourable attitude towards exporting outsource some of these resources from private research organisations or government agencies providing export market information. This implies that managers do not just utilise their firms' internal resources for export performance enhancement but sometimes seek opportunities to acquire and enrich their resources through collaborative arrangements to exploit international markets to achieve export success.

Methodology

Research Design

The research design used for the study was the survey method. The choice of the survey method was motivated by the fact that it helped to describe the preferences, behaviour, or factual information of the respondents considered.

Population of the Study

The population of this study comprised the operators of textile and leather SMEs in industrial clusters in Aba, Abia State, Nigeria. The population that was used in the study was captured by the Development Facility Phase II, (2018) and Ihediora, (2006). The population distribution was as follows;

Table 1: Population Distribution of Leather Products SMEs in Aba, Abia State of Nigeria

S/N	ABA LEATHER SMES	NUMBER OF PRODUCERS/SHOPS	APPROX. MINIMUM NUMBER OF EMPLOYEES	TOTAL NUMBER
1.	Powerline	650 Shops	5	3250
2.	Shoe Plaza	1290 Shops	3	3870
3.	Bakassi	200 Producers	3	600
4.	Nwaogu	300 Shops	3	900
	ABA GARMENT CLUSTER			
5.	Garment Village	600 Producers	5	3000
6.	Ekeoha Shopping Center	1000 Producers/Wholesalers/ Retailers	3	3000
	Grand Total			**14,620**

Sources: Development Facility Phase II, (2018); Ihediora, (2006)

The population for this study as stated above is 14,620 and with the Taro Yamane's formula, a sample size of 400 was obtained. Hence, copies of the questionnaire were administered to 400 respondents. Convenience sampling method was adopted for this study. Convenience sampling method offered the researchers the opportunity to select respondents in their work places where copies of the questionnaire were administered within a specific period with the help of five (5) research assistants.

Sources of Data

Data for this study were obtained basically from the primary sources of data. Primary data are sourced through survey. For this study, it involved mainly the questionnaire. Copies of the questionnaire were used to elicit data from the SMEs in Aba, Abia State. The questionnaire used a 5-point Likert scale ranging from 5 (strongly agree) to 1 (undecided), in order to capture responses that were used in data analyses.

Validity of the Instrument

The questionnaire was validated by two research experts in measurement and evaluation and one in marketing. Errors found during the appraisal process were corrected prior to usage.

Reliability of the Instrument

The test re-test was conducted to establish the initial reliability of the instrument. A further reliability test was conducted in the study using the Cronbach's Alpha. The reliability of the instrument was upheld when the reliability coefficient (r) exceeded 0.7 according to Nunnally (1978).

Table 2: **Reliability Analysis of the Variables**

S/N	Items	Cronbach's Alpha
1.	Covid-19 Supply chain disruptions	.863
2.	Export sales Growth	.813
3.	Export Intensity	.907

Source: SPSS Computation, 2022

Method of Data Analysis

Data were analyzed with simple regression model. All analyses were done electronically using the SPSS software version 20.0.

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Results and Discussion

Questionnaire Distribution and Return

Table 3: Distribution and Return of Questionnaire

Copies of Questionnaire Administered	Copies of Questionnaire Returned	Copies of Questionnaire Not returned
400	**380**	**20**

Source: Survey data, 2022

A total number of four hundred (400) copies of questionnaire were administered to operators of textile and leather SMEs in industrial clusters in Aba, Abia State, Nigeria. Out of this number, three hundred and eighty (380) were returned, while twenty (20) were neither filled nor incorrectly filled.

Analyses of Data

Effect of Covid-19 supply chain disruptions on export sales growth of SMEs in Abia State, Nigeria

Table 4: Simple regression on the effect of Covid-19 supply chain disruptions on export sales growth of SMEs in Abia State, Nigeria

Variables	Coefficient	Std. Error	t-value
(Constant)	4.890	1.612	3.021**
Covid-19 Supply chain disruptions	-5.604	2.042	-2.744**
R^2	0.509		
Adjusted R^2	0.491		
F-statistic	14.994		
N	380		

Source: Field Survey, 2022

Note: ** = Significant at 5% level

The regression result in Table 4 shows the effect of Covid-19 supply chain disruptions on export sales growth of SMEs in Abia State, Nigeria. Covid-19 supply chain disruption was found to be statistically significant at 5% probability level and negatively related to export sales growth of the studied SMEs in Abia State, Nigeria. This implies that export sales growth of the studied SMEs in Abia State, Nigeria is greatly affected by Covid-19 supply chain disruptions which have bedeviled the world. As Covid-19 pandemic supply chain disruptions increase, export sales growth of the studied SMEs in Abia State, Nigeria decreases.

The F-statistic in the regression above was 14.994 and significant at the 5% probability level indicating that the model specification was correct. The estimated regression equation shows that export sales growth of SMEs in Abia State, Nigeria is a linear function of the explanatory variable (Covid-19 supply chain disruption). The r^2 value of 0.509 indicates that 51% of the variation in export sales growth of the studied SMEs in Abia State is explained by Covid-19 supply chain disruptions. This assertion is at the 95% confidence level.

Effect of Covid-19 supply chain disruptions on export intensity of SMEs in Abia State, Nigeria

Table 5: Simple regression on the effect of Covid-19 supply chain disruptions on export intensity of SMEs in Abia State, Nigeria

Variables	Coefficient	Std. Error	t-value
(Constant)	8.406	2.842	1.736
Covid-19 supply chain disruptions	-0.297	0.080	-3.700***
R^2	0.603		
Adjusted R^2	0.489		
F-statistic	16.168		
N	380		

Source: Field Survey, 2022

Note: * = Significant at 1% level**

The regression result in Table 5 shows that Covid-19 pandemic supply chain disruptions was a negative and significant factor affecting export intensity of SMEs in Abia State, Nigeria. Covid-19 supply chain disruption was significant at 1% probability level and negatively related to export intensity of SMEs in Abia State, Nigeria. This indicates that export intensity of SMEs in Abia State, Nigeria is greatly affected by supply chain disruptions from the Covid-19 pandemic. Thus, as supply chain disruptions from the Covid-19 pandemic increases, export intensity of SMEs in Abia State, Nigeria decreases.

The F-statistic in the regression above was 16.168 and significant at the 1% probability level indicating that the model specification was correct. The estimated regression equation shows that export intensity of the SMEs in Abia State, Nigeria is a linear function of Covid-19 pandemic supply chain disruptions. The r^2 value of 0.603 indicates that 60% of the variation in export intensity of the SMEs in Abia State, Nigeria was explained by Covid-19 pandemic supply chain disruptions. This assertion is at the 99% confidence level.

Discussion of Findings

The essence of the study was to examine the effect that Covid-19 pandemic supply chain disruptions have on SMEs' export performance in Abia State, Nigeria. In the regression analyses above, Covid-19 supply chain disruption was found to be a negative and significant factor affecting export sales growth and export intensity of the studied SMEs in Abia State of Nigeria. Some previous studies conducted during this Covid-19 pandemic period have agreed with this finding by establishing a negative relationship between supply chain disruptions and export performance of SMEs. For instance, Agarwal and Mulenga (2020) discovered that Covid-19 restrictions imposed by South Africa impacted vital regional supply chains across southern and east Africa as it is a key driver of intra-Africa exports. Thus, Covid-19 measures affected supply chains of goods that are important for insecure households in Africa. Supply chain disruptions which include reduced air and sea cargo possibilities, materials loss and waste through delivery delays, and the sudden collapse in demand from foreign clients have limited trade across borders in Africa (OECD, 2020).

Conclusion

In this study, attempts have been made to assess how Covid-19 supply chain disruptions have impacted on the export performance of SMEs in Abia State. The pandemic disrupted supply chain across the globe and caused all round reduction in business activities. The most hit by the pandemic were SMEs who suffered from raw materials shortages, halt in production schedules, retrenchment of workers, amongst others. In Abia State of Nigeria, many SMEs involved in export activities were also affected by the Covid-19 pandemic. Supply chain disruption as a result of the Covid-19 pandemic was statistically found to have a significant but negative effect on the overall export performance of SMEs in Abia State of Nigeria. Thus, export sales revenue and export intensity of these SMEs have been drastically affected by the pandemic.

Recommendations

This study has made the following recommendations for the SMEs during the post-Covid-19 period;

i. The SMEs in Aba, Abia State should seek new destinations for their products particularly maximally

exploiting the regional and continental market like the one AfCFTA is opening in Africa. They can also create links with multinationals for ease of access to the global market. However, they must have to ensure that the quality of their products are of high standard in order to be acceptable globally.

ii. The SMEs in Aba, Abia State should form strategic inter-firm alliances in order to sustain export networks. Forming inter-firm alliance can benefit the SMEs in information sharing, corporate financing and sourcing of materials, corporate exports, etc. Working as a team of interconnected firms can equally help the firms build a culture of resilience for crisis seasons.

iii. Most SMEs in Abia State and Nigeria as a whole are involved in informal export because they are not officially registered as corporate organizations with CAC. To such SMEs, they can take advantage of the federal government free MSMEs by formalizing their export activities during this Covid-19 period. This will enable them to access trade related infrastructure from the government for enhanced foreign market access.

iv. Digitalization of trading processes is inevitable in our new normal. The SMEs must find ways to digitalize their operation in order to speed up their operation across international borders. One important step is to set up Trade Information Portal to provide information on all that is required to export and import, regulations, process, etc.

v. Going forward in the post-Covid-19 pandemic period, the enterprises must seek for local alternatives to raw materials imports which have been significantly affecting during the pandemic.

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