







IMPACT OF COVID-19 ON SMALL AND MEDIUM SCALE ENTERPRISES PERFORMANCE: EVIDENCE FROM NIGERIA

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ABSTRACT

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This study assessed the impact of the Covid-19 pandemic on the performance of small and medium scale enterprises (SMEs) in Nigeria using the quasi-experimental research design. Specifically, the study was designed to address three (3) key concerns - how the Covid-19 pandemic impacted on the level of profitability, customers' patronage and product supply shortages using SMEs owners and hired managers in Warri, Asaba and Ughelli metropolis in Delta State of Nigeria. To do this, a questionnaire was sent to one hundred and thirty (130) respondents and data obtained were analyzed by means of both descriptive (simple percentage, mean, median, standard deviation, variance, skewness and correlation) and inferential (regression and variance inflation factor – VIF) statistical techniques. The findings of the study indicated that the Covid-19 pandemic negatively and significantly affected the level of profitability, customers' patronage levels and product supply shortages of SMEs in Delta State of Nigeria. On the basis of the findings, it is recommended, among other things, that the Nigerian government should provide more funds for SMEs; such funds are required to cushion the negative impact the Covid-19 pandemic imposes on SMEs level of profitability, customers' patronage and product supply shortages. Again, the government and regulatory agencies of SMEs should gear efforts towards organizing seminars on how businesses can be carried out in a pandemic; this would further pave the way for enhancing SMEs operators' knowledge on how businesses can be carried out when a pandemic surfaces now or in the future.

Contribution/Originality: This study contributes to knowledge by filling the gap on what is known about the effect of the Covid-19 pandemic on SMEs performance. More so, this study contributes to knowledge by establishing that while the Covid-19 pandemic significantly affected profitability, customers' patronage and product supply shortage; the effective was found to be negative.

1. INTRODUCTION

In developed and developing nations, literature shows that small and medium enterprises (SMEs) are the driving force of industrial development. SMEs are regarded as the spur of economic growth and equitable development, particularly in developing nations; it has been the focal point of various governments of the world since SMEs have flexible configurations and contributed immensely to nation building (Aderemi, Charles Tolulope, Adedayo, & Busayo Lydia, 2019). The Central Bank of Nigeria (CBN) sees SMEs as an enterprise that has an assets

base (excluding land) of between ₦5,000,000 to ₦200,000,000 and a labour force of between 11 and 3,000 (Central Bank of Nigeria (CBN), 2010).

SMEs are labour intensive, capital saving and capable of creating jobs or reducing the rate of unemployment in a given nation. They are seen as the key driver of Nigeria economic growth, poverty alleviation strategy mechanism and employment generation process. Besides SMEs potential for self-reliant industrialization using local raw materials, they are in a better place to boost employment, guarantee even distribution of industrial development and facilitate the growth of non-oil exports. According to the National Bureau of Statistics (NBS) labour force survey, Nigeria unemployment rate was 27% in Q2 2020, 4 percent higher than the 23 per cent recorded in Q3 2018.

Given that the business environment is volatile and complex, business outcomes cannot simply be predicted. Thus, SMEs operations are in a constant flux, because the volatility of the business environment caused by a pandemic or political unrest may affect their operations. Govuzela and Mafini (2019) opined that SMEs play a strategic role in economic development and performance of any nation; the role played by SMEs can be seen in product production and service offerings, innovation and in helping big business to function (Aga, Francis, & Meza, 2015).

The survival of SMEs in any given nation largely depends on its performance index. In the view of Arokodare and Asikhia (2020) SMEs in many nations are looking to maintaining business performance as their survival is contingent on it. Again, SMEs find it cumbersome to maintain a positive performance, perhaps due to far-reaching and overwhelming negative impacts on their long-term goals. Overall, it is very difficult for SMEs to achieve growth stability in periods of economic meltdown, shutdown of commercial activities, imposing of curfews and a global pandemic as is being witnessed currently due to the Covid-19 outbreak.

Covid-19 is caused by a strain of coronavirus not previously identified in the human body and occurred in Wuhan (Okoro & Egberi, 2020). The Nigeria Federal Ministry of Health confirmed the first Covid-19 case in Lagos State, Nigeria on 27th February, 2020. The case above metamorphosed into something serious that devastated the Nigeria economy, as Nigeria and Delta State was not spared from the pandemic. The Covid-19 pandemic has put monumental pressure on policymakers and supervisory bodies across the globe, sparking off several mitigating initiatives by government agencies to combat the potential negative social-economic impact on households and businesses (Turner & Akinremi, 2020).

The adverse effects of the Covid-19 pandemic include interruption of supply chains, cash flow problems, weaker demand for imported goods and services, inability to meet delivery dates and increased risk aversion in financial markets among other things. More worrisome is the fact that the Covid-19 pandemic has caused a lot of businesses to shutdown, leading to a monumental disruption of trade and commerce in many industrial sectors (Donthu & Gustafsson, 2020). Again, low profitability often results from the high cost of running SMEs to meet customers' demands.

Furthermore, resulting from the inability to meet operational requirements and other factors like the Covid-19 pandemic, has often lead to reduced income, low patronage due to non-availability of some products caused by government impositions of restrictions of SMEs. In most cases, when SMEs are hit by such economic and natural factors, they often had a far reaching and trickle-down effect both on operators and the economy at large. It's on the basis of the above scenario that this study was designed to investigate the impact of the Covid-19 pandemic on SMEs performance in Delta State of Nigeria, with a view to identifying the factors that can ensure the sustainability of SMEs.

2. REVIEW OF RELATED LITERATURE

2.1. Small and Medium Scale Enterprises (SMEs) in Nigeria

The small and medium scale enterprises (SMEs) sector is the backbone of most developing economies, as well as important contributors to employment, economic and export growth. As early as the late 1940s, SMEs were

introduced into the development landscape, and the primary aim was to improve trade and industrialization (OECD, 2004). Apparently, to date, there has been no consistent definition of SMEs (Odiri, 2019) this has been one of the key difficulties facing researchers in researching SMEs.

Different quantitative (the number of employees, capital, profit, energy consumption, sales, value-added and market share) and qualitative (managed by owner-managers, lower level of hierarchy and specialization, insufficient financial resources and absence of modern managerial techniques) criteria have been used to describe or define SMEs (Dincer, 1996). In an attempt to separate SMEs, a survey report on Micro, Small and Medium Enterprises (MSMEs) in Nigeria (2012) sees SMEs as those enterprises whose total assets excluding land and building are above 5 Million Naira but not exceeding 50 Million Naira with a total workforce of above 10 but not exceeding 49 employees. While the medium enterprises are those enterprises whose total asset excluding land and building are above 50 Million Naira but not exceeding 500 Million Naira with a total workforce of between 50 and 199 employees.

In regards to the number of workers employed in an enterprise, notable moves have been made by various scholars and institutions. According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2013) a business is seen as small if it employs fewer than 100 employees. Over the years “SME” has continued to emerge as a business term in the international business world. This is as a result of the role the sector plays as a catalyst for employment generation, which propels national growth aimed at poverty reduction and economic development (Abehi, 2017; Aremu & Adeyemi, 2011).

According to the National Bureau of Statistics (NBS) (2013) there are 1,444 registered SMEs in Delta State, which offer various products and services to the general public. SMEs can be established with nominal capital/registration/managerial skills. Despite the numerous SMEs in Delta State of Nigeria, the rate of unemployment still stood at 27 per cent in a population that is ever-growing, suggesting that SMEs are experiencing major challenges that are hindering their performance index toward affecting the lives of the people in the State.

Government and NGOs are becoming more sensitive to the need to create a friendly business climate, supportive of the needs of the SME's particularly in developing nations. In view of this, several schemes and institutions have been established in Nigeria since independence to finance and extend credits to SMEs. SMEs are often small in nature and this constitutes an obstacle to their access to long-term capital and even access to short-term finance (Aryeetey, 2005; Bhavani, 2006; Tagoe, Nyarko, & Anuwa-Amarh, 2005).

Again, the management of SMEs often results in purchasing low quality equipment due to inadequate finance. This has led to low productivity and poor product quality, which in most cases has serious adverse consequence on output and market acceptability. SMEs' inability to employ skilled manpower due to constrained resources hinders their capability to maintain adequate records of their transactions necessary for loan applications from banks. These constraints have made SMEs unable to expend their limited resources on expenditures that are not directly productive; this is besides their low propensity to use external debt compared to large businesses (Colombo, Croce, & Guerini, 2012).

2.2. SMEs Profitability and Covid-19 Pandemic

As the Covid-19 pandemic continues to ravage the country, SMEs are struggling to survive due to the decline in production and harsh market conditions. If organizations are obsessed with short-term profit-oriented performance, they will settle for past successes and thus be unable to respond to market conditions, thereby falling into a success trap. On the other hand, in a long-term recession, profitability is reducing due to the continued decline of market demand. SMEs faced a lot of challenges in the past, even until the present; however, with the emergence of the Covid-19 pandemic, these challenges faced by SMEs increased, thus making it difficult to maximize the profits of SME.

Bartik et al. (2020) observed that mass layoffs and closures occurred just a few weeks into the pandemic and many more are expected in the days ahead and post-Covid. Also, the risk of closure was negatively associated with the expected length of the pandemic as businesses had widely varying beliefs about the likely duration of Covid-related disruptions.

Ensuing is the fact that many SMEs are financially fragile with poor liquidity and an unstructured cash flow system. Most SMEs planned to seek funding via the Covid-19 Aid, Relief and Economic Security (CARES) Act with many anticipated problems in accessing the program due to bureaucratic hassles and difficulties establishing eligibility. The inability to access funds needed in the post-Covid era conceivably may have negative effects on SMEs performance. In view of this, we thus hypothesized that:

H1: There is no significant relationship between Covid-19 pandemic and profitability of SMEs.

2.3. SMEs Customer Patronage Level and the Covid-19 Pandemic

Literature suggests that a lot of customers have changed their shopping habits due to the Covid-19 pandemic. The increase in economic options means they can easily shop elsewhere for what they need and by so doing, customers' patronage level reduces. For instance, the subscriptions to cable networks like Gotv, Dstv, Mytv, Startimes by customers in Delta State of Nigeria were usually done by visiting stores of the service providers, but due to the Covid-19 pandemic, customers no longer subscribe via this channel but have resorted to doing so online, thereby putting those who have stores to run at a disadvantage during the Covid-19 pandemic. The only way, therefore, is to offer services virtually. SMEs that provide services or sell products online are no longer sustainable (Odiri, 2019).

Winarsih and Fuad (2021) affirmed that as the lockdown and curfew imposed by the state subsists coupled with the spread of the pandemic, negatively affect customers' patronage level and access to sizeable stocks. Restriction of movement, price increases and low earnings have directly affected the levels of customers' patronage.

Due to the impact of the Covid-19 pandemic on customers' patronage of SMEs products and or services, the government of Delta State of Nigeria acted swiftly by putting various measures and intervention funds in place such as the Delta Cares Programme (DCP), Delta State Micro Small and Medium Enterprises Development Agency (DEMSMA), and Delta State Enterprise Empowerment Programme (DSEEP) among others. These programmes set aside by the state seem adequate, but not all SMEs were able to access these grants.

A survey by the United States (US) Chamber of Commerce indicates that consumers who spend more than 50 percent at local businesses have remained consistent in their spending habits while stuck at home during the global pandemic, and those who purchase less than 25 per cent at nearby stores have increased spending at those locations by 15 per cent. The Covid-19 pandemic has caused SMEs to transform their business operations to withstand any disruptions in the future. Consequent upon the above, we thus hypothesized that:

H2: There is no significant relationship between the Covid-19 pandemic and customers' patronage level of SMEs.

2.4. Product Supply Shortages and Covid-19 Pandemic

As Covid-19 takes its toll, various SMEs have their challenges in the supply chain trend due to the unforeseen circumstances imposed by the pandemic. The dynamics that necessitated product supply shortages, among others, are lack of accessibility to raw materials (particularly for SMEs in manufacturing sector), lockdown on the country and interstate borders, restrictions on movement, curfews and shutdown of major factories.

The lockdown induced scarcity of basic essential goods is an indication of shortages of goods such as sachet water, electronics/electrical and other essential items that promote the activities of business. The Covid-19 pandemic has highlighted to SMEs the need to transform their supply chain models to withstand any disruptions in the future. Again, the sit at home order imposed by the pandemic created the supply chain to change. It becomes

obvious how Covid-19 has brought about many uncertainties and risk to SMEs whose supply chains are reliant on external dynamics. Consequent upon the above, we thus hypothesized that:

H3: There is no significant relationship between the Covid-19 pandemic and product supply shortages of SMEs.

2.5. Theoretical Framework

The theoretical framework of this study is anchored on the theory of constraints (TOC). In the view of Ifandoudas and Gurd (2010) TOC is useful for improving productivity and quality. Tastan and Demircioglu (2015) posited that TOC is a management philosophy, which emphasizes that a company's main goal to make money is always hindered by at least one constraint. The constraint prevents an organization from maximizing and reaching its goal.

The Covid-19 pandemic was a major constraint to improving the productivity and quality of SMEs products and services as well as product supply shortage. The sit at home order, state imposed curfew and lockdown were some of the major constraints, which the TOC describes as hindering productivity and SMEs quality.

According to Odougo and Ovang (2016) constraints are restrictions on perfect operations of businesses. Business constraints according to Boyd (2011) may lead to decline in the performance of organizations. Again, Bartik et al. (2020) identified that constraints imposed by the Covid19 pandemic has affected the fragility of the financial status of numerous businesses coupled with threatened cash flow leading to seeking of intervention funds from government either as grants or soft loans.

3. RESEARCH METHOD

The research design adopted is the quasi-experimental design; the purpose of this design is to enable the researchers to obtain data on the relationship between the Covid-19 pandemic and SMEs performance. The study was centralized on SMEs in Delta State with respect to the Covid-19 pandemic. However, the population for the study was one thousand, four hundred and forty-four (1,444) registered SMEs operating in Delta State of Nigeria (SMEDAN, 2013).

The sample size for this study was determined by Owojori (2002) sample size determination formula. According to Owojori (2002) a sample size of 10 per cent of the study population is considered adequate for a study. Relying on the recommendations of Owojori (2002) the study sample size 144 was obtained as shown in Table 1.

Table 1. Sample size distributions.

Parameters	Population	Categories	Sample Size	(%)
Asaba Metropolis	440	Electronic/electrical, phones and sachet water, etc.	44	31
Ughelli Metropolis	454	Electronic/electrical, phones and sachet water, etc.	45	31
Warri Metropolis	550	Electronic/electrical, phones and sachet water, etc.	55	38
Total	1,444		144	100

Relevant data were gathered from the primary sources. The primary instrument adopted is the structured questionnaire, which was designed on an adjusted four point Linkert like scale of strongly agree (SA), agreed (A), disagree (D) and strongly disagree (SD). To validate the responses, a mean benchmark was established; a mean benchmark of 2.40 was established such that a mean that falls below 2.40 invalidates a particular response while a mean that is above 2.40, validates a particular response.

This study adopted the Cronbach Alpha reliability coefficient technique. To achieve this, thirty (30) respondents who do not form part of the test group were given the questionnaire. Data collected were analyzed using Cronbach Alpha to establish the internal consistency of the instrument. The instrument yielded Cronbach

Alpha of 0.78 in part one, and 0.72 in part two. Hence, the instrument is considered appropriate since Cronbach Alpha coefficients exceed 0.5 as recommended by Cronbach (Creswell, 2009).

Furthermore, data obtained in the field survey were analyzed using both descriptive (simple percentages, mean, median, standard deviation, skewness, kurtosis, and correlation) and inferential (regression and variance inflation factor - VIF) statistical techniques. The analysis was done using STATA 13.0, statistical software version. Given the independent variable, which is the Covid-19 pandemic and dependent variables, profitability, customers' patronage level and product supply shortages of SMEs, the following empirical models were estimated:

$$C19p = \alpha_0 + \beta_1 P_i + \mu_i$$

$$C19p = \alpha_0 + \beta_2 CP_i + \mu_i$$

$$C19p = \alpha_0 + \beta_3 PSS_i + \mu_i$$

Where: C19P= Covid-19 pandemic; P=profitability; CP=customer patronage; PSS=product supply shortage; μ =error term; α, β =regression coefficients.

Table 2. Demographic characteristics of respondents.

S/N	Variables	Categories	Frequency(N=130)	Percentage (%)
1	Gender	Male	87	66.92%
		Female	43	33.08%
		Total	130	100.00%
2	Marital Status	Single	44	33.85%
		Married	86	66.15%
		Total	130	100.00%
3	Age	18-25years	56	43.08%
		26-35years	50	38.46%
		36-45years	17	13.08%
		46years-55years	7	5.38%
		56years & above	-	-
		Total	130	100.00%
4	Educational Qualification	First Sch. Leaving Cert	11	8.46%
		Secondary	33	25.38%
		NCE/OND	44	33.85%
		B.Sc.	42	32.31%
		M.Sc./PhD	-	-
		Total	130	100.00%
5	Work Status	Owners	78	60.00%
		Hire Managers	52	40.00%
		Total	130	100.00%
6	Work Experience	1-12months	10	7.69%
		1-5years	33	25.38%
		5-10years	53	40.77%
		10years and above	34	26.15%
		Total	130	100.00%

Source: Field Survey, 2021.

4. RESULTS

Table 2 reports the demographic information of the respondent subjects and it was shown that 87(66.92%) are male and 43(33.08%) are female. On the marital status of the respondents, it was found that 44(33.85%) are single and 86(66.15%), which is the majority, are married. The age distribution of the respondents revealed that 56(43.08%) fall within the age range of 18-25years, 50(38.46%) fall within age range 26-35years and 17(13.08%) and 7(5.38%) are within age brackets 36-45years and 46years-55years respectively.

Furthermore, the educational qualification levels of the respondents revealed that 11(8.46%), 33(25.38%), 44(33.85%) and 42(32.31%) had Primary School Leaving, Secondary, NCE/OND, and B.Sc. Certificates respectively while none had obtained M.Sc. or PhD degrees. The work status of respondents supports the fact that majority of the respondents are SME owners, representing 78(60.0%) while 52(40.0%) are hired managers in the SMEs. The

work experience shows that the majority of respondents had worked in or embarked on SMEs operations for about 5–10years, representing 53(40.77%), followed by 34(26.15%) for 10years and above; an indication that the respondents may be knowledgeable and have acquired numerous years of experience in SMEs undertakings.

The descriptive statistics in Table 3 showed that profitability (p) has a mean value of 3.3354 with standard deviation of 0.2298, indicating the value by which SMEs profitability deviates from mean among the research subjects. The skewness revealed that profitability is positively skewed with a coefficient of 0.2540. Moreover, customers' patronage level (cp) depicts a mean value of 3.2954 with standard deviation of 0.2057, suggesting the value by which cp deviates from mean among the research subjects; the skewness implies that cp is positively skewed with a coefficient of 0.1481. Similarly, product supply shortage (pss) has a mean value of 3.2338 with a standard deviation of 0.1932; implying that the value by which cp deviates from mean among the research subjects and skewness shows that it is positively skewed with a coefficient of 0.3829.

Table 3. Descriptive results.

Parameters	C19p	P	CP	PSS
Mean	3.275	3.335	3.295	3.236
Median	3.250	3.400	3.200	3.200
Std. Dev.	0.228	0.229	0.206	0.193
Skewness	0.536	0.254	0.148	0.383
Kurtosis	2.797	2.721	2.218	2.599
Variance	0.052	0.053	0.043	0.038
Observations	130	130	130	130

Source: Field Survey, 2021.

The kurtosis values for p (2.721), cp (2.218) and pss (2.599) are clear indications that the variables are normally distributed since kurtosis values are closer to 3. Overall, all variables (p , cp , cp , and $c19p$) beat the mean benchmark of 2.50; this validates the respondents' views, indicating that the questionnaire items are good metrics for assessing the impact of the Covid-19 pandemic outbreak on SMEs.

Table 4. Correlation results.

Parameters	C19p	P	CP	PSS
C19p	1.000			
P	-0.050	1.000		
Cp	-0.101	-0.053	1.000	
Pss	-0.072	0.029	0.186	1.000

Source: Field Survey, 2021.

In Table 4, the result shows that profitability (p), customers' patronage level (cp) and product supply shortage (pss) are negatively correlated to Covid19. However, the correlation matrix also revealed that no two explanatory variables of the study were perfectly correlated, since none of the correlation coefficients exceed 0.8 as suggested by Gujarati (2003) cited in Okoro and Ihenyen (2020) and Okoro and Ekwueme (2021). The above position is further confirmed by the result of a multicollinearity test as shown:

Table 5. Variance inflation factor (VIF) results.

Variable	VIF	1/VIF
CP	1.04	0.963
PSS	1.04	0.965
P	1.00	0.996
Mean VIF	1.03	

Source: Field Survey, 2021.

Table 5 shows the multicollinearity result; according to Gujarati (2003) cited in Okoro and Ihenyen (2020) and Okoro and Ekwueme (2021), multicollinearity between explanatory variables may result in wrong signs or

implausible magnitudes in the estimate model coefficients, and the bias of standard errors of the coefficients. The result of VIF = 1.03 is less than the accepted VIF value of 10.0, suggesting that there is not a multicollinearity problem in the model of the study.

Table 6. Regression results for Covid-19 pandemic and SMEs profitability.

Source	SS	df	MS	Number of obs. = 130		
Model 1	4.017	1	2.017	F(1, 128)	=	22.32
Residual	6.714	128	0.053	Prob. > F	=	0.000
Total	10.731	129	0.052	R-Squared	=	0.015
				Adj. R-Squared	=	0.009
C19p	Coef.	Std. Err.	T	P>/t/	[95% Conf. Interval]	
P	-0.446	0.028	7.57	0.000	-1.623	2.126
_cons	3.442	0.293	11.73	0.000	2.861	4.022

Source: Field Survey, 2021.

In Table 6, the regression results were presented and it was found that R-squared and adjusted R-squared were (0.0159%) and (0.0094%) respectively. This implies that the independent variable explains about 15.9% of the systematic variations in the model for the sampled SMEs. The F-statistics (df=1, 128, f-ratio=22.32) with a p-value of 0.0000 shows that the link is significant at the 5 percent level. Hence, the null hypothesis was rejected and an alternate hypothesis was accepted; this means that there is a significant link between the Covid-19 pandemic and profitability of SMEs; however, the relationship appears to be negative.

Table 7. Regression results for Covid-19 pandemic and customers' patronage.

Source	SS	Df	MS	Number of obs. = 130		
Model 2	6.040	1	2.013	F(1, 128)	=	9.63
Residual	26.352	128	0.209	Prob. > F	=	0.000
Total	32.393	129	0.251	R-Squared	=	0.187
				Adj. R-Squared	=	0.167
C19p	Coef.	Std. Err.	T	P>/t/	[95% Conf. Interval]	
cp	-0.112	0.098	-5.19	0.000	-1.305	2.081
_cons	3.646	0.323	11.30	0.000	3.005	4.281

Source: Field Survey, 2021.

In Table 7, the regression results were presented and it was found that R-squared and adjusted R-squared were (0.1865%) and (0.1671%) respectively. This implies that the independent variable explains about 18.65% of the systematic variations in the model for the sampled SMEs. The F-statistics (df=1, 128, f-ratio=9.63) with a p-value of 0.000 shows that the link is insignificant at the 5 percent level. Consequent upon this, the null hypothesis was rejected and an alternate hypothesis was accepted; this means that there is significant relationship between the Covid-19 pandemic and customers' patronage level; however, the relationship appears to be negative.

Table 8. Regression results for Covid-19 pandemic and product supply shortage.

Source	SS	df	MS	Number of obs. = 130		
Model 3	5.607	1	5.607	F(1, 128)	=	26.79
Residual	26.785	128	0.209	Prob. > F	=	0.000
Total	32.392	129	0.251	R-Squared	=	0.173
				Adj. R-Squared	=	0.167
C19p	Coef.	Std. Err.	T	P>/t/	[95% Conf. Interval]	
Pss	-0.432	0.083	-5.18	0.000	-0.267	0.597
_cons	7.101	0.675	10.51	0.000	5.765	8.438

Source: Field Survey, 2021.

In Table 8, the regression results were presented and it was found that R-squared and adjusted R-squared were (0.1731%) and (0.1666%) respectively. This implies that the independent variable explains about 17.31% of the systematic variations in the model for the sampled SMEs. The F-statistics (df=1, 128, f-ratio=26.79) with a p-value

of 0.0000 shows that the link is significant at the 5 percent level. Thus, the null hypothesis was rejected and an alternate hypothesis was accepted; this implies that there is significant relationship between the Covid-19 pandemic and SMEs product supply shortage; however, the association appears negative.

5. DISCUSSION

Prior studies have shown that SMEs are the driving force of industrial development, particularly in developing countries; this situation may also be true for developing country like Nigeria. Over the years, SMEs have suffered several problems like disruption of supply chains, cash flow glitches, weaker demand for imported goods and services, inability to meet delivery dates etc. However, in the wake of the Covid-19 pandemic, many SMEs and other business undertakings were forced to shut down, resulting to monumental disruption to trade and commerce.

In this study, the impact of the Covid-19 pandemic on SMEs was assessed and the study concludes that the Covid-19 pandemic significantly and negatively affected the performance of SMEs, customers' patronage level as well as product supply shortages. The study's findings agree with results of the previous studies of [Dogan and Christina \(2020\)](#); [Rafis, Ishak, and Jusoh \(2020\)](#); [Bartik et al. \(2020\)](#) that the Covid-19 pandemic significantly affected SMEs. Notably, the negative signs attached to the variables (performance, customers' patronage level and product supply shortages) may be connected to the fact that Delta State was among the States of the Federal Republic of Nigeria that was also affected by the Covid-19 pandemic. Consequently, SMEs have suffered decreased levels of customers' patronage, profitability and product supply shortages compared to other Nigerian states (Abuja, Lagos, etc.) and foreign nations (United State of America, United Kingdom, Brazil, China, etc.) that were seriously affected by the Covid-19 pandemic.

6. CONCLUSION AND RECOMMENDATIONS

This study assessed the impact of the Covid-19 pandemic on small and medium scale enterprises (SMEs) performance in Delta State of Nigeria. Primary data (a questionnaire) was the main instrument of data collection submitted to 144 SMEs, out of which 130 were fully and completely answered. Data obtained in the field survey were analyzed using both descriptive and inferential statistical techniques. Findings of the regression result indicated significant relationships between the Covid-19 pandemic and profitability, customer patronage level and product supply shortages of SMEs. In view of the findings of the study, it is recommended that: *first*, there is need for the government to provide more funds for SMEs; the funds are needed to cushion the negative impact the Covid-19 pandemic may have imposed on SMEs profitability, customers' patronage level and product supply.

Second, while few SMEs were still doing businesses (online platforms), the operations of several SMEs were negatively affected. Thus, the government and regulatory agencies for SMEs should gear their efforts towards organizing seminars and conferences on how businesses can be done in periods of a pandemic. This would further enhance SMEs operators' knowledge on how they can carry on businesses when a pandemic surfaces now or in the future. Finally, SMEs operators should further strengthen their supply chain, delivery channels for customers as well as seeking additional cash flows to become sustainable in the future.

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