Effects of Coronavirus Pandemic on Organizational Performance of Small and Medium Scale Enterprises in Nigeria

Emmanuel O. Emenyi
Department of Accounting,
Akwa Ibom State University
emenyi007@yahoo.com;
08030989037

&

Owoibohoeno King Udo
Department of Insurance and Risk Management
University of Uyo, Uyo.
owoibohoenoudo@gmail.com
08061374303

Abstract
This study examined the effect of COVID-19 pandemic on organizational performance of small and medium scale enterprises (SMEs) in Nigeria. The survey research design was adopted for the study and data were obtained from primary and secondary sources. Descriptive and inferential statistics were deployed in analysing the data collected. The population of the study was made up of six thousand and thirty three (6,033) small and medium scale enterprises drawn from the South-South geo-political zone of the country cutting-across all operational areas of SMEs in Nigeria including computer and internet services, poultry businesses, barber shops, car wash, sport viewing centres, fast- food businesses, photography, haulage, courier services and laundry businesses. The sample size of the study was three hundred and seventy-five (375) SMEs and the sampling technique adopted in achieving this was the Taro Yamane Formular at 5% confidence interval level. Findings from the study revealed that, there is a significant effects of COVID-19 pandemic period on Return on Assets (ROA) of SMEs in Nigeria. From the results of findings, it was concluded that all the variables maintained an inverse relationship with the Return on Asset (ROA) of SMEs during the period and that there was a significant combined effects of COVID-19 pandemic period on sales volume and operating expenses during COVID-19 pandemic period on Return on asset (ROA) of SMEs in Nigeria. It was recommended that there is need for improvement and implementation of proactive response strategies by SMEs as one of the worst hit sub-sectors in contending and cushioning the effects of COVID-19 pandemic in Nigeria, adoption of marketing strategies to drive demand and boost sales volume and patronage level of goods and services, reduction in operating expenses in order to increase profitability and achieve good performance in return on asset (ROA) of SMEs in Nigeria.
Keywords: Performance, Covid 19, Retuen on Asset, SM|E, Sale Volume

1.0   Introduction

Globally, the contagious spread of the novel Corona virus, a transmittable virus produced by the new kind of corona virus SARS-CoV-2, also referred to as COVID-19, has caused severe disruptions to countries' economies, the society and businesses (both individual and corporate), since it was first noticed in the Chinese city of Wuhan, Hubei Province, a commercial hub in China, late 2019 (Emenyi and Effiong, 2020). As countries strive to cope with the uncertainties of this crisis and businesses continue to implement their pandemic response strategies and palliatives, Small and Medium Scale Enterprises(SMEs) which are the strong catalyst that constitute the real fabric of a nation's economic development seems to have been one of the sectors worst-hit by the disease outbreak. The surging effects of this dreaded disease that was

subsequently declared a Pandemic by the World Health Organization (WHO) in February, 2020, had increase the risk of business environment, especially those of the SMEs fraught with myriad challenges in substantial disruptions and halting of operations, fluctuations in business operating earnings and overall reduction in business functional areas and organizational performance (Aderemi et al., 2020, Enesi et al., 2021, Akintola et al., 2021 and IMF, 2020). Indeed, its occurrence has remained a pandemic in scope and nature, endemic in effects and severity, due to the unprecedented increase and magnitude of its negative impacts to all spheres of business endeavours and the world.

WHO (2020), Akintola et al., (2021) and Akingbade (2021) summarized that the reason the outbreak became uncontrollable in Nigeria and caused unquantifiable losses to SMEs was because of weak institutions that were ineffective in mitigating the shocks of the pandemic and the lack of business risk management programs and strategies to cushion the negative effects and vulnerable business dealings affected by the crisis. The COVID-19 scourge has, within the short period of time, hit hard on SMEs both locally and internationally and altered every aspect of human life across the globe which ranges from postponement of many religious, social and cultural events, games and sporting events, weddings, burials, shutting down of institutions and centers of learning and closure of internal and international borders which forms the foundation to service delivery, operation and existence of SMEs. Akintola et al., (2021) revealed that, the consequences of the COVID-19 pandemic have been unprecedented to SMEs' operation, causing drastic reduction and uncertainties in business operating earnings and profit, low sales volume, declining investment yield, high operating cost, dwindling fortunes of profitability measures such as decline of return on Equity (ROE), return on invested capital (RoIC) and return on assets (ROA).

Emil (2011) and Al-shami (2008) maintained that ROA is an indicator of how profitable a business is, relative to its total assets and a good indication of the level of efficiency, management is using the firm's assets to generate earnings and income. Thus, a higher ROA denotes higher level of company's profitability. ROA is an indication of the operating efficiency of the firm. ROE on the other hand, measures a company's profitability in relation to the money shareholders have invested. ROIC is a measure used to asses a company's efficiency in allocating the capital under its control in profitable investments. This measure gives a sense of how well a company is using its money to generate returns.

The COVID-19 pandemic therefore resulted to unprecedented losses to SMEs' profit and diminishing performance of global economy, leading to production shutdowns and supply chain disruptions that have snowballed into trickling effects across all industries of global economic sectors in a manner that was never expected (Aderemi et al., 2020, Enesi et al.,2021 and IMF, 2020). The pandemic has created a demand and supply shock in almost every facet of human endeavors and SMEs. The effects of the dreaded disease have been monumental in proportion without any exception to countries or economies, whether developed or developing.

Empirical researches and findings on the effects of COVID-19 on organizational performance of SMEs are not sufficient but mixed with inconsistent results. More so, extant literature reveals that studies on COVID-19 pandemic and its debilitating effects on business performance in Nigeria, such as Akintola et al., (2021), Abideen (2020), Akingbade et al., (2021), Enesi et al., (2021), Ozili et al., (2020), Gabriel et al., (2020), KPMG (2020e) and KPMG (2020f), have focused majorly on health sector, states, the banking, manufacturing sub-sectors of the economy and developed economies. Little or no effort is made on the whole economy of Nigeria, and discussions on these studies have, though, suggested a number of impacts on other sectors which

are not linked to the SMEs. However, empirical studies have been scanty. This study attempts to fill this gap. Hence, there is need to conduct this study in Nigeria, in order to determine the effects of COVID-19 pandemic on SMEs organizational performance in Nigeria.

The main objective of this study is to examine the effects of COVID-19 pandemic on organizational performance of SMEs in Nigeria. Other specific objectives of the study are to establish the effect of COVID-19 epidemic on return on asset (ROA) of SMEs in Nigeria, the impacts of sales volume, operating expenses and patronage level during COVID-19 pandemic period on return on asset (ROA) of SMEs in Nigeria. To achieve the above objectives, the following research hypotheses are formulated in a null form:

Ho_1: There is no significant effect of COVID-19 pandemic period on return on asset (ROA) of SMEs in Nigeria.

Ho_2: There is no significant impact of sales volume during COVID-19 pandemic period on return on asset (ROA) of SMEs in Nigeria.

Ho_3: There is no significant effect of operating expenses during COVID-19 pandemic period on return on asset (ROA) of SMEs in Nigeria.

Ho_4: There is no significant impact of patronage level during COVID-19 pandemic period on return on asset (ROA) of SMEs in Nigeria.

Ho_5: There are no significant combine effects of COVID-19 pandemic period, sales volume, operating expenses and patronage level during COVID-19 pandemic period on return on asset (ROA) of SMEs in Nigeria.

2.0 Literature Review

2.1 Conceptual Review

The corona virus disease also known as "COVID-19" is a highly transmittable and pathogenic viral infection caused by severe acute respiratory syndrome which started in China late 2019 and spread around the world, causing unprecedented damage to both human life and industrial activities and disruption of the operational efficiency of the SMEs in Nigeria in particular. The Director-General of the World Health Organization (WHO) proclaimed the international spread of a new coronavirus2 (SARS-CoV-2) to be a world-wide Pandemic because of its rate of spread and infection to human life (Gabriel et al., 2020). The difference between an epidemic and a pandemic is a matter of "scale" in public health field. In short, a pandemic is an epidemic that has gone global. The term "pandemic" as defined in medical literature, is pathologically characterized by some key features including: wide- geographic extension, disease movement, newness, sternness, high attack rates and explosiveness, minimal population immunity, infectiousness and contagiousness. This viral malady, within a short time, crashed and crippled great economies of the world, both developed and developing including the United States of America, China, Russia, Britain, India, Europe, South Africa, Nigeria and Asia, among others (WHO, 2020).

The UNDP report observed that the most vulnerable population of people (SMEs' operators), mostly work in the informal sector, which requires close person-to-person interactions for cash transactions and patronage. Hence, while the lockdown and border-closure was critical for disease containment, the economic and social foundations for SMEs' survival and the resilience structures of Nigeria's most vulnerable population was seriously undermined (UNDP, 2020).

According to Akintola (2021), WHO and UNESCO (2020), in the past, there have been disease outbreaks and pandemics which caused colossal impacts to humanity across the globe such as

Spanish Flu, Hong Kong Flu, SARS, H7N9, Ebola, Zika but, the COVID-19 pandemic has been so contagiously devastating in both cause, effects and severity. Globally, it has infected more than eleven million, four hundred and sixty-two thousand, and eighty (11,462,080) persons and recorded about five hundred and thirty-five, thousand and one (535,001) deaths. In Nigeria, it has infected about twenty-eight thousand, one hundred and sixty-seven (28,167) persons and about six hundred and thirty-four (634) deaths (WHO, 2020 and Aderemi et al.,2020).

According to Nigeria Centre for Disease Control (NCDC), as at 18th October, 2021, there were 125 new confirmed cases of COVID-19 in 10 states of Nigeria, bringing to a total of 209,298 confirmed cases nation-wide, with 197, 143 discharged, 9318 active cases, and 2,837 deaths recorded in the 36 states of the Federation in 3,142,971 samples tested so far. At Present, there are; FCT(45), Kaduna(34), Rivers(11), Lagos(10), Osun(10), Oyo(9), Jigawa(2), Edo(2), kano(2) and plateau(1). The summary is presented in the table below;

Summary of COVID-19 status in Nigeria by NCDC data stream table

States Affected	Number of cases (Lab. confirmed)	Number of Cases(Admission)	Number Discharged	Number of Deaths
Lagos	77,513	3,840	72,947	726
FCT	22,884	1,807	20,869	208
Kaduna	9,901	97	9,726	78
Plateau	9,575	162	9,348	65
Rivers	12,524	234	12,136	154
Oyo	8,730	528	8,011	191
Edo	6,562	179	6,159	224
Ogun	5,370	1	5,289	80
Kano	4,265	58	4,092	115
Ondo	4,530	72	4,360	98
Kwara	3,919	206	3,650	63
Delta	3,562	896	2,556	110
Osun	2,971	37	2,848	86
Enugu	2,682	64	2,589	29
Nasarawa	2,476	92	2,345	39
AKwa Ibom	4,346	316	3,986	44
Gombe	2,552	69	2,429	54
Katsina	2,226	6	2,185	35
Ebonyi	2,059	24	2,003	32
Anambra	2,369	17	2,333	19
Abia	1,991	34	1,928	29
Imo	2,017	92	1,884	41
Bauchi	1,640	26	1,596	18
Benue	1,749	269	1,455	25

Borno	1,356	4	1,314	38
Adamawa	1,157	27	1,098	32
Taraba	1,092	14	1,054	24
Niger	1,051	33	998	20
Ekiti	1,755	35	1,692	28
Bayelsa	1,227	11	1,188	28
Sokoto	805	5	772	28
Jigawa	596	15	565	16
Yobe	502	3	490	9
Kebbi	458	9	433	16
Cross- River	605	15	565	25
Zamfara	276	21	247	8
Kogi	5	0	3	2

Source: **NCDC COVID -19 Prevalence Rat io by States in Nigeria, October 18 ᵗʰ, 2021 Data bank**

2.1.2. COVID-19 Impacts on Organizational Performance of Small and Medium Scale Enterprises (SMEs) in Nigeria

The Corona virus triggered a new type of recession that is different from past recessions. For instance, the Asian debt crisis of 1997 was caused by the collapse of the Thai baht in July 1997, which created panic that caused a region-wide financial crisis and economic recession in Asia (WHO, 2020). The 2008 global financial crisis, which translated to a recession, was caused by loose monetary policy which created a bubble, followed by subprime mortgages, weak regulatory structures, and high leverage in the banking sector (AfDB, 2020). The 2016 recession in Nigeria was caused by the fall in the price of crude oil, balance of payment deficit, adoption of a fixed-float exchange rate regime, an increase in the pump price of petrol, activities of pipeline vandals and infrastructure weaknesses (Enesi et al.,2021 and Lancet, 2020).

Enesi et al.,(2021), WHO (2020), UNESCO and UNCTAD (2020) opined that the COVID-19 scourge has, within a short time, hit hard on SMEs and businesses, especially SMEs in Nigeria, which are largely characterized by weak structure, small capital base and internationally affected every aspects of human-life across the globe with unprecedented disruption of economic activities, vast reduction in the flow of goods and services from the global supply chain given that China (the originator of the disease) is the world's largest manufacturer and exporter of goods; culminating into the formulation and enforcement of COVID-19 Emergency-response Strategies (CErS) such as: stay-at home nationwide directives, lockdown and imposition of curfews, closure of countries' borders, restriction and cancellations of business transactions,

postponement of many social and cultural events, games and sporting events, weddings, burials, shutting down of school and institutions in 44 countries of five continents of the world, including Africa, with hundreds of millions of students around the world facing disruptions and closing of internal and international borders.

IMF (2020) and Zhang et al., (2020) maintained that these CErS had spillover effects on virtually all industries and sectors, planted seeds of economic doom and plunged countries' economies (developing and developed) into recession and created a demand and supply shock in almost every facet of human endeavour and aggravated world insights into economics of prudent resource utilization and management.

Following various authors' conceptual reviews, a conceptual relationship between the independent variables, the proxies that indicated the effects of COVID-19 on organizational performance of SMEs (dependent variable) in Nigeria is presented as shown in figure 1 which underscores the conceptual framework of this study:
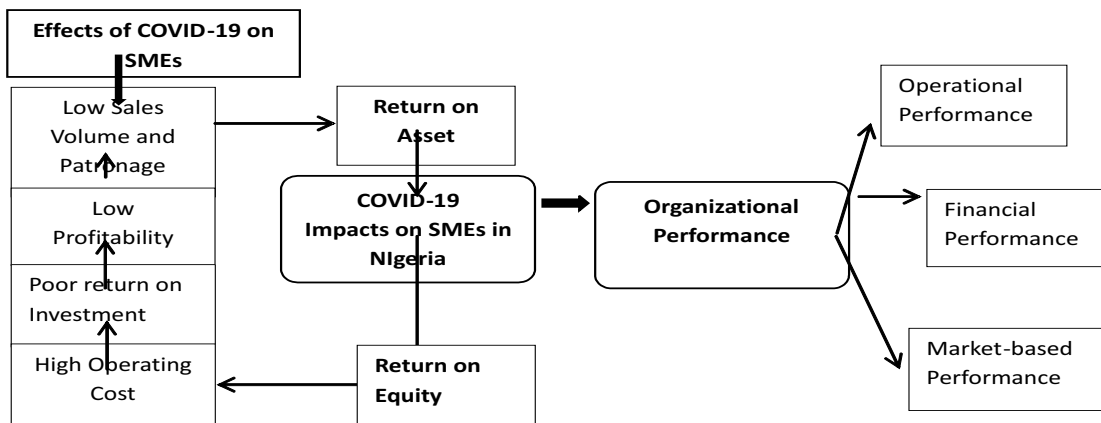

Figure 1.0: The Impacts of COVID-19 on SMEs Organizational Performance in Nigeria.

Source: Researchers' presentation based on information on IMF, fact book, 2020

2.1.3   Concept of Organizational Performance

In recent times, organizational performance has become the most conventional variable and determinant in organizational research, yet at the same time, it remains one of the most vague and loosely defined constructs (Rogers et al., 1998). Measuring organizational performance is difficult, especially when the intervening variables measured keep changing (Green, 2003 and Hubbard, 2006).

Many small and medium-sized enterprises are becoming ever more focused on their organizational performance. Organizational performance comprises the actual results or output of an organization as measured against its intended results or outputs. Typically, there are different ways to characterize various types of organizational performance. Erastus (2013) and Dyer and Reeves (1995), proposed four possible types of measurement for organizational performance in firms as follows:

1) Human resource outcomes (job satisfaction, absenteeism, turnover),
2) Organizational outcomes (quality, productivity, service),
3) Financial accounting outcomes (return on assets, profitability) and
4) Capital market outcomes, (stock price, growth, returns).

However, as a proposition in academic literature advances, Pierre et al. (2009) and Meyer and

Gupta (1994), argued that organizational performance encompasses three specific areas of firm outcomes:

(a) Financial performance (profits, return on assets, return on investment, etc.)
(b) (b) Product market performance (sales, market share, etc.) and
(c) Shareholder return (total shareholder return, economic value added, etc.).

According to Vieira (2010), organizational performance indicators from relationship marketing perspective include: increasing market share, retaining current customers, attracting new customers, creating loyal customers, increasing profit, increasing return on investment, positive image, among others.

Venkatrman and Ramanujam (1986) maintained that organizational performance has three dimensions: financial performance, operational performance, and stakeholder performance. According to literature review by Combs et al., (2005), Brealey et al., (2001), Himmelberg et al., (1999), Demirguc-Kunt and Harry, (1999), Erastus (2013), the most common types of organizational performance measures that are universally accepted and applied by firms globally in recent empirical researches are:

1. Financial or accounting performance
2. Operational performance and
3. Market-based performance

Financial and Accounting Performance
Performance is usually assessed with accounting-based measures (for example, profitability measures such as Return on Assets (RoA), Return on Investment(RoI), Return on sales, Return on Equity (RoE). market-based measures (for example, stock market returns) or a mixture of accounting-and market-based measures (for example, price-earnings ratio). Accounting-based criteria are common in performance evaluations. Popular management journals by Authors, use profitability criteria for performance-league tables. Similarly, in academic performance studies, profitability measures are the most often used (McGuire and Hill, 1986; Hubbard and Bromiley, 1995). Kaplan and Norton (1992) asserted that, accounting-based figures can be misleading because they might have been manipulated to portray the organization's vague position. Thus, lack of consistency in corporate accounting methods (for example, with regard to the treatment of inflation, inventory valuation, and depreciation or intangible assets) and the absence of standardization in application of International Accounting Conventions make interpretations as well as comparisons between organizations difficult. A further shortcoming of all accounting-based performance measures is their backward-looking focus. Data of past years reveal little about the future potentials of a firm in line with the ever-changing business environment. The "short-termism" of the accounting-based measures relates to another point of criticism. Profit can easily be raised in the short-term by cutting expenditures. For instance, for advertising or research and development. However, this thoughtful practice might be harmful in the long-run. Thus, the question is if "firm performance" is truly assessed when merely relying on Accounting based measures (Ursula and Wilderom, 1997).

Market-based Performance
Given the criticism with regard to accounting-based measures, several authors propose market-based measures as better overall performance indicators in measuring organizational performance (McGuire et al., 1986; Carton and Hofer, 2006). Stock-market data are assumed to reflect investor's estimations of future firm potential and thus focus on the long-term value of the enterprise. Under the assumption that investors evaluate firms appropriately (perfect markets), stock-market data are seen as sensible indicators of corporate performance for listed firms.

However, the idealistic assumption of perfect markets and the high percentage of unlisted firms pose serious limitations to their widespread use. The relationship of market- and

accounting- based measures therefore are with mixed results.

A number of empirical studies have found accounting and market-based measures of performance to be essentially uncorrelated in line with the factor analyses position of two independent dimensions of financial and economic performance (Meyer and Gupta, 1994). With these variations in theories, other studies, also found correlations between the two types of measures as well as a single underlying construct of firms' financial performance (Rowe et al., 1995). The convergence of accounting and market-based performance measures seems to depend on time and context factors. Fryxell and Barton (1990) and Jahanshahi et al. (1989), found a higher convergence in times of uncertainty, whereas, Douma and Kabir (1995), discovered a strong positive relationship only for large firms. Further research in this area has to solve this issue of dimensionality. In general, it can be said that both types of measures have their limitations hence, should be combined where possible. Accounting measures refer to variables that can be derived from the three basic financial statements of all businesses, namely: balance sheets, income statements and statements of cash-flows. Most accounting measures are generally expressed as values, ratios or percentages. The calculation of the amounts presented in reporting companies " (those companies required to file periodic financial statements and reports with the Securities and Exchange Commission (SEC) are based upon Generally Accepted Accounting Principles (GAAP) consistently applied both over time and across companies. While it would seem that following a common set of rules for reporting financial results would produce uniformity in presentation among similar companies, there is sufficient variations both in the nature of financial transactions and interpretation by those applying GAAP, to result in significant variation in the way companies present their financial information, thereby, making comparison across companies difficult (Harry and Raviv, 2003).

Operational performance
According to Carton and Hofer (2006), operational performance can be further sub-categorized into market share, new product introduction, product and service quality, marketing effectiveness and customer satisfaction. In addition to financial and economic performance criteria, Venkatraman and Ramanujam (1986) and Kaplan and Norton, (1992), proposed operational performance measures such as market share, new product introduction, product and service quality and marketing effectiveness. Comparable approaches advanced in comparison, are the balanced scorecard and the business-model approaches, which include financial as well as operational criteria relating to value for customers, innovation and internal business improvement. These models promote the linking of data from several financial and operational measures in order to see if improvement in one area has been achieved at the expense of another. The latter presumption relates exactly to the main point made by the (earlier discussed) competing values approach. Operational performance indicators come close to what other authors label "critical success factors "(Douma and Kabir, 1995and Combs et al.,2005).
There is however, a conceptual difference as operational performance variables are regarded as indicators of the performance construct itself, whereas critical-success-factors are regarded as predictors of performance. This conceptual difference relates to a crucial issue both in organizational effectiveness and in corporate practice.

2.2   Theoretical Framework

2.2.1   The Situational Crisis Communication Theory (SCCT)

The Situational Crisis Communication Theory (SCCT) was developed by Timothy Coombs, it offers a conceptual link and framework between crisis response strategies and the crisis situation and further describes various response strategies that could be used when faced with certain crisis situations such as the COVID-19 pandemic period. The SCCT suggests that crisis managers, who are also referred to as economic agents, such as SME operators, should match crisis response

strategies to the level of crisis responsibility, financial and economic threat posed by the crisis to protect reputational assets of the business, and that, the post-crisis actions an organization takes, depends on the crisis-situation as witnessed in the COVID-19 outbreak which is termed a crisis situation by the WHO. This theory is in consonance with the findings and studies of WHO (2020), Enesi et al.,(2021), Abideen (2020), Akingbade(2021), Aderemi et al.,(2020), Gabriel et al.,(2020) and UNESCO(2020) that, the scourge of the dreaded COVID-19, requires a proactive and strategic actions to be adopted and implemented by all businesses, organizations, states, SMEs in particular and countries (whether developed or developing), to curb and mitigate the spread of the disease which has hitherto killed more than 20,000 people globally.

2.3 Empirical Literature Review

Enesi et al., (2021) examined the effects of COVID-19 pandemic on the performance of SMEs business in Abuja, Nigeria. The study adopted the quantitative research technique using primary data of 10 selected SMEs in Abuja Municipal Area. Findings from the study indicated that COVID-19 pandemic affected SMEs' operations negatively, causing staff lay-off, low revenue or income generation, lack of patronage, as a results of lack of government sincerity in reducing the scourge and prevalence of the pandemic.

Abayomi et al., (2021) studied the effects of COVID-19 pandemic on entrepreneurship enterprise in Calabar, Cross River State using a descriptive quantitative survey method and 385 samples size participants drawn using stratified, purposive and simple random sampling techniques. The findings of the study revealed that there is a negative significant relationship between the pandemic and SMEs' growth. Hence, all entrepreneurs (businesses) in cross river state were affected by the pandemic. There was a 93.5% drastic reduction on sales and production occasioned by the effects of the pandemic, resulting to laying-off of employees by the SMEs.

Aderemi et al., (2020) investigated the impacts of COVID-19 pandemic on Small and Medium Scale enterprises in Nigeria with three essential-food and consumables, pharmaceuticals, oil and Gas in Ogun State, Nigeria. The study findings showed a spike in reduction of contracts and deliveries which causes enterprise moderate reduction in production and sales during the lockdown.

Gabriel et al., (2020) examined the impact of Covid-19 and the response strategies employed by businesses. The study adopted the cross-sectional survey method Five different selected firms and economic sectors were considered spanning Hospitality (Hotel presidential), Health care (New Yale Haven Hospital), Manufacturing (Innoson Vehicle Manufacturing), Finance (Radix Pension Managers) and Oil and gas industries (Seplat Petroleum) using data generated through desk review of secondary materials, telephonic interviews, and social media chats with a population of fifteen (15) top echelon members of the focused organisations. The key findings emerged from the study showed that COVID-19 negatively affected business operations in most of these organisations, resulting in loss of substantial revenue to the firms. The study further revealed that the predominant response strategies of most organisations included improved communication, diversification and innovativeness.

KPMG (2020f) studied the impacts of the twin shocks of COVID-19 and oil price war on the banking sub-sector in Nigeria over the period of 2019 to 2021. The findings showed that, COVID-19 pandemic slammed severe economic downturn to the nation's banking industry with significant impairment of some financial instruments based on fair value assessments, increased credit risk defaults and lower recoveries due to inactive markets for collaterals, reduced cash inflows from loan repayment, increased fraud, cyber threats, etc. due to relaxed internal controls, fair value losses due to increased credit spreads, reduced profit levels and capital depletion, drastic reduction in Capital Adequacy Ratio(CAR) below the regulatory threshold, Severe

pressure on banking customers across various segments, i.e. retail, commercial and corporate and increased reliance on digital channels with pressure on technology infrastructure and resources.

Asghar et al., (2012) studied the impacts of electronic commerce (e-commerce) applications on the organizational performance of the Indian small and medium enterprises (SMEs). The study was conducted on five different categories of e-commerce; electronic advertising, electronic payment system, electronic marketing, electronic customer support service and electronic order and delivery. The survey method was adopted in the study. The results show that there is a significant relationship between applications of electronic commerce and operational and market based performance of SMEs in India.

Olivier (2021) examined the mitigation strategies of organizations' management of the COVID-19 Pandemic on nine Canadian SME business sectors. The study applied inclusion and exclusion criteria on 2707 potentially relevant articles where 246 articles describing organizational initiatives to manage COVID-19 were selected and analyzed. The results revealed that the effects of COVID-19 epidemic on SMEs are manifold and of unprecedented severity, ranging from employee lay-off, endemic apprehension of investors overstretched fiscal and monetary policy pressures, supply chain disruptions and wastages, wage reductions, labour shortages and absenteeism, among others.

3.0   Research Methodology

Considering the nature of this study, the researchers adopted a survey research design in which primary data were obtained through the administration of questionnaire. This study was carried out on the South-South geographical zone of the country as a representative of Nigeria. The South-South zone is made up of 6 States in Nigeria including: Akwa Ibom, Cross-River, Bayelsa, Delta, Edo, and Rivers states. Due to the heterogeneous nature of the zone in population, the Geo-political zone was largely affected by the scourge of the COVID-19 pandemic and thus the impacts escalates across the shores of the country with high prevalence of SMEs cutting across areas of agriculture, manufacturing, oil and gas, haulage services, ICT, fashion and designing, retail and Import and export trade business dealings.

The population of the study was made up of six thousand and thirty-three (6,033) small and medium scale enterprises drawn from the South-South geo-political zone of the country in all operational areas of SMEs in Nigeria as stated earlier. The sample size of the study was three hundred and seventy-five (375) SMEs and the sampling technique adopted in achieving this was the Taro Yamane Formular at 5% confidence interval level. The Formular is given as:

$$\frac{n}{1 + n\,(0.5^2)}$$

$$n = \frac{6,033}{1 + 6,033\,(0.5)^2}$$

$$n = \frac{6,033}{1 + 6,033\,(0.0025)}$$

$$n \;=\; 375$$

The structured COVID-19 SMEs impacts Questionnaire (CSIQ) was used and it provided convenient way of gathering information form the target population. The Questionnaire was divided into two Sections: Section 1 was again divided into sub-sections A and B. Sub-section A was designed to gather information related to the outbreak, infectious spread and impacts of the COVID-19 on SMEs. Sub-section B was meant to collect information related to SMEs and the nature of operation during the epidemic. The questions were the simple type, where every item required the respondent to choose from the alternatives given. Similarly, Section 2 was designed to collect information relevant to organizational performances, which are categorized into operational performance, financial performance and market-based performance.

Copies of questionnaire were administered on the respondents from the randomly sampled SMEs operators on-the-spot and face-to-face bases. Five (5) research assistance who were duly informed, with each going to different states, in administering the questionnaire. To ensure that they administered the questionnaire appropriately, the researcher informed them on the sample characteristics they are going to face in the course of administration with the help of the approval letter from the Department. The instruments administered were 375 out of which 300 copies were appropriately filled and returned for the study.

This study used both descriptive and inferential methods for data analysis. A multiple regression analysis approach was utilized to evaluate the nexus connecting the dependent and independent variables, because the reported t-statistics was used. Analysis of Variance (ANOVA) regression analysis conducted so that the reported t-statistics from the SPSS outputs were utilized to test the research hypotheses. This tool was necessary because it combined two or more explanatory (independent) variables in a prediction equation for a response (dependent) variable. Multiple regression analysis examined the nexus connecting a single outcome measure and several predictor or independent variables.

Stated below are the regressions models for testing of the earlier stated research hypotheses:

$$ROA = f(COVID) \qquad (1)$$
$$ROA = f(SALES) \qquad (2)$$
$$ROA = f(OPEXP) \qquad (3)$$
$$ROA = f(PATRON) \qquad (4)$$
$$ROA = f(COVID, SALES, OPEXP, PATRON) \qquad (5)$$

The regressions equations are linearized in the study objectives as:

$$ROA = \beta_0 + \beta_1 COVID + u_t \qquad (6)$$
$$ROA = \beta_0 + \beta_1 SALES + u_t \qquad (7)$$
$$ROA = \beta_0 + \beta_1 OPEXP + u_t \qquad (8)$$
$$ROA = \beta_0 + \beta_1 PATRON + u_t \qquad (9)$$
$$ROA = \beta_0 + \beta_1 COVID + \beta_2 SALES + \beta_3 OPEXP + \beta_4 PATRON + u_t \qquad (10)$$

Where;
ROA = Return on asset (ROA) of SMEs in Nigeria (Dependent Variable)
COVID = COVID-19 epidemic period (Independent Variable)
SALES = Sales volume during COVID-19 epidemic period (Independent Variable)
OPEXP = Operating expenses during COVID-19 epidemic period (Independent Variable)
PATRON = patronage during COVID-19 epidemic period (Independent Variable)
u_t = the stochastic error term.
β_0 is a regression constant while $\beta_1 - \beta_5$ are the coefficients of the independent variables.

4.0   Data Presentation and Analysis
4.1   Analysis of respondents' demographic
In qualitative research that involves the analysis of subjective opinions of the participants, it is often critically importance to know the types, nature, class, and kinds of persons whose opinion were used in making an informed decision concerning important issues for which problems were found and solutions consequently sought. Table 4.1 presents the summary of the result of demographic analysis of the respondents.

Table 4.1: Analysis of respondents' demographic

Demographics	Options	Frequency	Percentage
SEX	Male	151	50.3
	Female	149	49.7
	Total	**300**	**100.00**
Age	25-30 Years	19	6.3
	31-35 Years	76	25.3
	36- 40 Years	126	42.0
	41 and above Years	79	26.3
	Total	**300**	**100.00**
Marital Status	Single	93	31.0
	Married	160	53.3
	Divorced	25	8.3
	Widowed	22	7.3
	Total	**300**	**100.00**
Highest Educational Qualification	SSCE	41	13.7
	OND/NCE	80	26.7
	HND/BSc	119	39.7
	MSc./MBA	47	15.7
	PhD	13	4.3
	Total	300	100.0
Years of Service/Experience	0 – 5 Years	48	16.0
	6 – 10 Years	103	34.3
	11 – 16 Years	85	28.3
	17 and above Years	63	21.0
	Total	**300**	**100.0**

Source: Field Survey Data (2021)

From Table 4.1, a total of 151 respondents representing 50.3% were male while a total of 149 representing 49.7% of the respondents were female. This implied that majority of the participants were male. However, this does not presuppose the fact that using more women in the study will in any way affect the analysis and findings of the study. This is because the opinions expressed are highly likely to represent general opinion or position concerning the research issues and not a feminine opinion or position. Also, the majority (42.0%) of the respondents were under the age bracket of 36-40 years. In addition, 53.3% of the respondents were married while 39.7% were holders of HND/B.Sc and 34.3% have working experience spanning between 6-10 years.

4.2 Analysis of Research Items and Constructs

The responses to the questions on the two constructs are presented in Table 4.2. As presented above, Table 4.2 (In Appendix 1) contains questions on the items measuring each research construct or variable and the responses. The data on the items are presented in nominal scale to reflect the scoring.

From Table 4.2, it does appear that most of the responses are in the affirmative, meaning that the respondents are of the popular opinion that they all have reasonable understanding of the questions asked on every research items. On that strength, it could be averred that respondents' opinion on the items are sufficient to guarantee scientific analysis and a valid conclusion. Implicitly, this could be interpreted to mean that each independent research construct or variable has some kind of relationship with the dependent research construct or variable. However, at this level, until statistically and scientifically tested, significant causality can only be assumed but not claimed between each explanatory variables and the explained variable.

4.3 Descriptive Analyses of Research Variables

This analysis was conducted to assess the descriptive properties of the research variables in order to ascertain if the data possess requisite characteristics for statistical analysis. These analyses involved descriptive statistics such as the mean, standard deviation, minimum, maximum as well as skewness and kurtosis. This statistic discloses the characteristics of the research variables principally in terms of variance or closeness of the data points to the mean. The ultimate goal was to determine the degree of variability of the data away from the mean. A high variability indicates high degree of variance and high potential of non-normality of the data thus leading to unreliable estimate. It is desired that the dataset has low level of variability.

Table 4.3 presents the result of this statistics.

Table 4.3: Descriptive Statistics Result

	N	Minimum	Maximum	Mean	Std. Deviation
COVID	300	1.0	5.0	3.470	1.5111
SALES	300	1.0	5.0	3.243	1.0838
OPEXP	300	1.0	5.0	3.080	1.1740
PATRON	300	1.0	5.0	3.390	1.0270
ROA	300	1.0	5.0	3.093	1.2314
Valid N (listwise)	300				

Source: Researcher's Computation (2021) from SPSS Output.

From the result in Table 4.3, all mean values fall in between the maximum and minimum values of 5 and 3.470 respectively and that is desirable. Again, the standard deviations values for all variables are less than 1, which indicate low variance and is desirable. This shows that the data points of the variables a clustered around the mean and is highly likely to be the true position of the opinions expressed and the parameters estimated with this data set is highly likely to have less or minimal error.

4.4 Correlation Statistics

For the purposes of testing the combined effects of COVID-19 epidemic on organizational performance of SMEs in Nigeria, there is need to perform a bivariate correlation to ensure that the variables are less likely to correlate among themselves to avoid multicollinearity problem in the estimated parameters. The result of the correlation is presented in Table 4.4 that follows:

Table 4.4: Bivariate Correlations

		COVID	SALES	OPEXP	PATRON	ROA
COVID	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	300				
SALES	Pearson Correlation	.784**	1			
	Sig. (2-tailed)	.001				
	N	300	300			
OPEXP	Pearson Correlation	.683**	.503**	1		
	Sig. (2-tailed)	.001	.000			
	N	300	300	300		
PATRON	Pearson Correlation	.551**	.652**	.577**	1	
	Sig. (2-tailed)	.009	.008	.002		
	N	300	300	300	300	
ROA	Pearson Correlation	.812**	.829**	.775**	.644**	1
	Sig. (2-tailed)	.000	.000	.002	.000	
	N	300	300	300	300	300

Source: Researcher's Computation (2021).

From the result, the correlation coefficients among the independent variables are less than 90%, indicating that all the variables maintained positive correlations at 5% (0.05) level of significance.

4.5   Inferential Statistical Analyses

This section presents the test result of the hypotheses developed to guide the conduct of this study. This test was performed with simple regression statistics. The essence of the tests was to examine the effects of independent on dependent variable.

4.5.1   Hypothesis I

Ho$_1$:   There is no significant effect of COVID-19 pandemic period on Return on asset (ROA) of SMEs in Nigeria.

This hypothesis was tested using simple regression statistics and the results are presented i   n Table 4.5.1.

Table 4.5.1: Regression Results for Hypothesis One

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.312[a]	.097	.094	1.0617	2.054

a. Predictors: (Constant), COVID
b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.108	1	36.108	32.031	.000[b]
	Residual	335.928	298	1.127		
	Total	372.037	299			

a. Dependent Variable: ROA
b. Predictors: (Constant), COVID

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.075	.154		26.502	.000		
	COVID	.230	.041	.312	5.660	.000	1.000	1.000

a. Dependent Variable: ROA
Source: Researcher's Computation via SPSS

The test of the null hypothesis (H_0) against the alternate hypothesis (H_1) is that H_0 is rejected if the calculated statistical probability is less than the p-value of 0.05. Since the calculated p-value of 0.000 is less than the p-value of 0.05, we reject the null hypothesis and accept the alternate hypothesis, which states that there is a significant effect of COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria. The f-stat value (32.031) which is significant at 5% level implies that the model returning this result is correct and valid. The R^2 value of 0.097 implies that the model explains a total of 9.7% of the variation in the dependent variable while 90.3% of the variation is explained by variables not included in the model. The D-W stat. value of 2.054 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. The economic implication of the result is that improvement in Return on Asset (ROA) of SMEs in Nigeria can be achieved if there is a greater improvement in contending with COVID-19 epidemic in Nigeria.

4.5.2 Hypothesis II
Ho$_2$: There is no significant impact of sales volume during COVID-19 pandemic period on Return on asset (ROA) of SMEs in Nigeria.

This hypothesis was tested using simple regression statistics and the results are presented in Table 4.5.2.

Table 4.5.2: Regression Results for Hypothesis Two

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.203[a]	.041	.038	1.1352	1.853

a. Predictors: (Constant), SALES
b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.468	1	16.468	12.778	.000[b]
	Residual	384.052	298	1.289		
	Total	400.520	299			

a. Dependent Variable: ROA
b. Predictors: (Constant), SALES

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.786	.200		13.947	.000		
	SALES	.188	.053	.203	3.575	.000	1.000	1.000

a. Dependent Variable: ROA
Source: Researcher's Computation via SPSS

The test of the null hypothesis (H_0) against the alternate hypothesis (H_1) is that H_0 is rejected if the calculated statistical probability is less than the p-value of 0.05. Since the calculated p-value of 0.000 is less than the p-value of 0.05, we reject the null hypothesis and accept the alternate hypothesis, which states that there is a significant impact of sales volume during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria. The f-stat value (12.778) which is significant at 5% level implies that the model returning this result is correct and valid. The R^2 value of 0.041 implies that the model explains a total of 4.1% of the variation in the dependent variable while 95.9% of the variation is explained by variables not included in the model. The D-W stat. value of 1.853 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. The economic implication of the result is that improvement in Return on asset (ROA) of SMEs in Nigeria can be achieved if there is a greater improvement in sales volume of SMEs in Nigeria.

4.5.3 Hypothesis III

Ho₃: There is no significant effect of operating expenses during COVID-19 pandemic period on Return on asset (ROA) of SMEs in Nigeria.

This hypothesis was tested using simple regression statistics and the results are presented in Table 4.5.3.

Table 4.5.3: Regression Results for Hypothesis III

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.147[a]	.022	.018	1.1650	1.891

a. Predictors: (Constant), OPEXP

b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.924	1	8.924	6.575	.011[b]
	Residual	404.463	298	1.357		
	Total	413.387	299			

a. Dependent Variable: ROA

b. Predictors: (Constant), OPEXP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.956	.250		11.826	.000		
	OPEXP	.172	.067	.147	2.564	.011	1.000	1.000

a. Dependent Variable: ROA

Source: Researcher's Computation via SPSS

The test of the null hypothesis (H_0) against the alternate hypothesis (H_1) is that H_0 is rejected if the calculated statistical probability is less than the p-value of 0.05. Since the calculated p-value of 0.011 is less than the p-value of 0.05, we reject the null hypothesis and accept the alternate hypothesis, which states that there is a significant effect of operating expenses during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria. The f-stat value (6.575) which is significant at 5% level implies that the model returning this result is correct and valid. The R^2 value of 0.022 implies that the model explains a total of 2.2% of the variation in the dependent variable while 97.8% of the variation is explained by variables not included in the model. The D-W stat. value of 1.891 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. The economic implication of the result is that improvement in Return on asset (ROA) of SMEs in Nigeria can be achieved if there is a greater reduction in operating expenses of SMEs in Nigeria.

4.5.4   Hypothesis IV

Ho₄: There is no significant impact of patronage level during COVID-19 pandemic period on Return on asset (ROA) of SMEs in Nigeria.

This hypothesis was tested using simple regression statistics and the results are presented in Table 4.5.4.

Table 4.5.4: Regression Results for Hypothesis IV
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.175[a]	.030	.027	1.1002	1.902

a. Predictors: (Constant), PATRON
b. Dependent Variable: ROA

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.340	1	11.340	9.369	.002[b]
Residual	360.696	298	1.210		
Total	372.037	299			

a. Dependent Variable: ROA
b. Predictors: (Constant), PATRON

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.766	.179		15.485	.000		
PATRON	.166	.144	.175	1.153	.082	1.000	1.000

a. Dependent Variable: ROA
Source: Researcher's Computation via SPSS

The test of the null hypothesis (H_0) against the alternate hypothesis (H_1) is that H_0 is rejected if the calculated statistical probability is less than the p-value of 0.05. Since the calculated p-value of 0.082 is greater than the p-value of 0.05, we accept the null hypothesis, which states that there is no significant impact of product patronage during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria. The f-stat value (9.369) which is significant at 5% level implies that the model returning this result is correct and valid. The R^2 value of 0.030 implies that the model explains a total of 3% of the variation in the dependent variable while 97% of the variation is explained by variables not included in the model. The D-W stat. value of 1.902 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. The economic implication of the result is that, improvement in Return on asset (ROA) of SMEs in Nigeria can be achieved, if there is a greater improvement in patronage of SMEs in Nigeria.

4.5.5   Hypothesis V
H_{o_5}:   There are no significant combine effects of COVID-19 pandemic period, sales volume, operating expenses and patronage during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria.
This hypothesis was tested using simple regression statistics and the results are presented in Table 4.5.5.
Table 4.5.5: Regression Results for Hypothesis V

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.428[a]	.183	.170	1.0165	2.178

a. Predictors: (Constant), COVID, SALES, OPEXP, PATRON

b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.256	5	13.651	13.212	.000[b]
	Residual	303.781	294	1.033		
	Total	372.037	299			

a. Dependent Variable: ROA

b. Predictors: (Constant), COVID, SALES, OPEXP, PATRON

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.403	.347		6.919	.000		
	COVID	-.172	.040	.234	-4.265	.000	.926	1.080
	SALES	-.135	.057	.131	-2.378	.018	.920	1.087
	OPEXP	-.152	.060	.140	-2.509	.013	.896	1.116
	PATRON	-.029	.054	.031	-.543	.587	.859	1.165

. Dependent Variable: ROA

Source: Researcher's Computation via SPSS

The test of the null hypothesis (H_0) against the alternate hypothesis (H_1) is that H_0 is rejected if the calculated statistical probability is less than the p-value of 0.05. Since the calculated p-values are less than the p-value of 0.05, we reject the null hypothesis and accept the alternate hypothesis, which states that there is a *significant combine effects* of COVID-19 epidemic period, sales volume and operating expenses during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria. However, patronage maintained insignificant effect on the Return on asset (ROA) of SMEs in Nigeria. The f-stat value (13.212) which is significant at 5% level implies that the model returning this result is correct and valid. The R^2 value of 0.183 implies that the model explains a total of 18.3% of the variation in the dependent variable while 81.7% of the variation is explained by variables not included in the model. The D-W stat. value of 2.178 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. The economic implication of the result is that improvement in Return on Asset (ROA) of SMEs in Nigeria can be achieved if there is a greater improvement in key determinants of Return on asset (ROA) of SMEs in Nigeria.

4.3   Discussion of Findings

From the results in hypothesis one, it was found that the f-stat value (32.031) which was significant at 5% level implies that the model was correct and valid. The R^2 value of 0.097 implies

that the model explains a total of 9.7% of the variation in the dependent variable while 90.3% of the variation is explained by variables not included in the model. The D-W stat. value of 2.054 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. Since the calculated p-value of 0.000 is less than the p-value of 0.05, the finding is that there is a significant effect of COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria.

Also, the results in hypothesis two revealed that the f-stat value (12.778) which was significant at 5% level implies that the model was correct and valid. The R^2 value of 0.041 implies that the model explains a total of 4.1% of the variation in the dependent variable while 95.9% of the variation is explained by variables not included in the model. The D-W stat. value of 1.853 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. Since the calculated p-value of 0.000 is less than the p-value of 0.05, the finding is that there is a significant impact of sales volume during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria.

Furthermore, the result in hypothesis three shows that the f-stat value (6.575) which is significant at 5% level implies that the model is correct and valid. The R^2 value of 0.022 implies that the model explains a total of 2.2% of the variation in the dependent variable while 97.8% of the variation is explained by variables not included in the model. The D-W stat. value of 1.891 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. Since the calculated p-value of 0.011 is less than the p-value of 0.05, it shows that there is a significant effect of operating expenses during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria.

The f-stat value (9.369) in hypothesis four was significant at 5% level indicating that the model returning this result is correct and valid. The R^2 value of 0.030 implies that the model explains a total of 3% of the variation in the dependent variable while 97% of the variation is explained by variables not included in the model. The D-W stat. value of 1.902 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. Since the calculated p-value of 0.082 is greater than the p-value of 0.05, the finding is that there is no significant impact of patronage during COVID-19 epidemic period on Return on asset (ROA) of SMEs in Nigeria. Also, the f-stat value (13.212) in hypothesis five was significant at 5% level implies that the model returning this result is correct and valid. The R^2 value of 0.183 implies that the model explains a total of 18.3% of the variation in the dependent variable while 81.7% of the variation is explained by variables not included in the model. The D-W stat. value of 2.178 is above 1.5 which indicates the absence of autocorrelation problem in the estimated parameters. Since the calculated p-values were less than the p-value of 0.05, the finding is that there is a *significant combine effects* of COVID-19 epidemic period, sales volume and operating expenses during COVID-19 epidemic period on Return on Asset (ROA) of SMEs in Nigeria. However, patronage maintained insignificant effect on the Return on asset (ROA) of SMEs in Nigeria. The finding also revealed that all the variables maintained negative relationship with the Return on asset (ROA) of SMEs in Nigeria.

5.0   Conclusion and Recommendations

Based on the findings of the study, it is concluded that all the variables maintained negative relationships with the Return on Asset (ROA) of SMEs during COVID-19 epidemic period in Nigeria. There is a significant combined effect of COVID-19 epidemic period on sales volume and operating expenses on Return on asset (ROA) of SMEs in Nigeria. However, patronage maintained insignificant effect on the Return on Asset (ROA) of SMEs in Nigeria. It is recommended that there is need for improvement in contending with COVID-19 epidemic in Nigeria, improvement in sales volume, reduction in operating expenses and improvement in patronage of SMEs in Nigeria, to achieved good performance in Return on Asset (ROA) of SMEs in Nigeria.

References

Abideen, S. O. (2020). Coronavirus (COVID-19) and the survival of small and medium enterprises in Abeokuta, Ogun State, Nigeria. *Scholars Journal of Economic, Business and Management*, 7,209-214. http://doi.org/10.36347/sjebm.2020.v07i06.002.

Aderemi. T. A., Ojo, L. B., Ifeanyi, O. J,,and Efunbajo, S.A.(2020). Impacts of corona virus (covid-19) pandemic on small and medium scale enterprises(smes) in Nigeria: A critical case study. *Acta Universitatis Danubius.Economica*,16, 251-261.

Akingbade, W. A. (2021). Covid-19 pandemic challenges to micro, small and medium scale enterprises in Nigeria: Strategic options for survival. *Acta Economica,* 19, 153 167.http://doi.org/10.7251/ACE2134153A.

Akintola, Abayomi I., Angioha, P. U., Thelma A. and Etta E. O. (2021). Covid-19 pandemic and entrepreneurship enterprise in Calabar, Cross River State, Nigeria. *Journal of Good Governance and Sustainable Development* (JGGSDA)in Africa, 6(1)23 29.http://journal.rcmss.com/index.php/jggsda/article/view/37.

Al-shami, H.A.A. (2008). *Determinants of insurance company's profitability in UAE*. Unpublished MSC thesis, Utala Malaysia University, Kedah, Malaysia.

Arab-Mazar, Z., Sah, R., Rabaan, A. A., Dhama, K., and Rodriguez-Morales, A. J. (2020). Mapping the incidence of the covid-19 hotspot in Iran - implications for travellers. *Trav. Med. Infect. Dis*. 34, 101630. doi:10.1016/j.tmaid.2020.101630

Asghar, A. J., Mahdi, R., Khaled, N., Vahid, R. and Bairagi, K. P**.** (2012). Analyzing the effects of electronic commerce on organizational performance: Evidence from small and medium enterprises. *African Journal of Business Management,* 6 (15), 6486- 6496.

Bairagi Kachardas Pitamber (2012). Analyzing the effects of electronic commerce on organizational performance: Evidence from small and medium enterprises, *African Journal of Business Management.*6 (15), pp. 6486-6496, http://www.academicjournals.org/AJBM

Brealey, R. A. and Kaplanis, E. (2001). Hedge funds and financial stability: An analysis of their factor exposures. *Journal of International Finance,* 4(2), 161 – 187.

Butler M and Rivera K. (2020). Seven key actions business can take to mitigate the effects of covid-19. UK: PWC;

Carton, R. B. and Hofer, C. W. (2006). Measuring organizational performance: Metrics for entrepreneurship and strategic management research. University Press, 4326p.

Combs, J. G., Crook, T. R. and Shook, C. L. (2005). The dimensionality of organizational performance and its implications for strategic management research. *Journal of Strategic Management.* 6(2), 412- 456.

Demirgüç-Kunt, A. and Harry, H. (1999). Determinants of commercial bank interest margins and profitability: some international evidence. T*he World Bank Economic Review.* 13(2), 379–408.

Douma, R. G. and Kabir, R. (1995). Foreign and domestic ownership, business groups and firm's performance: Evidence from a large emerging market. S*trategic Management Journal*, Willey, 27(7), 637 – 657.

Dyer, L. and Reeves, T. (1995). Human resource strategies and firm performance: What do we know and where do we to go? *International Journal of Human Resource management*. 6(3), 656-670.

Emenyi, O. E. and Effiong, S. A. (2020). Macroeconomic variables and stock market performance: Covid – vectors or Covid - variables? *Journal of Critical Reviews*. 7(12), 4685- 4693

Emil, L. (2011). How Age diversity on the board of directors affects firm performance. Blekinge Institute of Technology. *Journal of Financial Management.* 5(2) 56 – 62.

Enesi, O. and Ibrahim, A. U. (2021). Effects of covid-19 pandemic on the performance of small and medium business enterprises in Abuja - FCT, Nigeria. *Open Journal of Business and Management*, 9(5), 2261-2276.

Erasmus, F. K. (2013). Impact of size and age on firm performance: Evidence from microfinance institutions in Tanzania. *Research Journal of Finance and Accounting Financial Times.* https://www.ft.com/content

Fryxell, G. E. and Barton, S. L. (1990). Temporal and contextual change in the measurement of structure of financial performance: implications for strategy research. *Journal of Management.* 16, 553 – 569.

Gabriel, J. M. O, Chika-Anyanwu, H., Georgewill, I., Georgewill, O. S. and Nsirimovu, E. A. (2020). An examination of the impacts of covid-19 and response strategies adopted by businesses. *Insights into Economics and Management 1(4) 151 - 169*
Green, C. (2003). Corporate financial structures in India. *South Asian Economic Journal,* 4, 245-274.

Harris, M. and Raviv, A. (2003). Capital structure and the informational role of debt, *Journal of Finance*, 45 (2), 321-349.

Himmelberg C., Hubbard G. and Palia D. (1999). Understanding the determinants of managerial ownership and the link between ownership and performance. *Journal of Financial Economics*, no 53, pp. 353-384.

Hubbard, G. and Bromiley, P. (1995). Researchers and top managers: How do they measure firm performance? University of Minnesota: Working paper, 60 -72.

Jahanshahi, A. A., Gashti, A. M., and Mirdamadi, S.A. (2011). Study the effects of customer service and products quality on customer satisfaction and loyalty. *International Journal of Humanities and Social Science,* 1(7), 253 – 260.

Kaplan, R. S. and Norton, D. P. (1992). The balanced scorecard – measures that drive performance. *Harvard Business Review,* 71 – 79.

Karunathilake K. (2020) Positive and negative impacts of covid-19: An analysis of covid-19, with special reference to challenges on the supply chain in South Asian counties. *Journal of social and Economic Development* https://doi.org/10.1007/s40847-020-00107-z

KPMG (2020a). Navigating the pandemic: A board lens. *KPMG Board Governance Centre Nigeria.* 1-24p.

KPMG (2020b). Top ten business risks in 2020 and 2021. KPMG G*overnance Centre Publication, Nigeria* 1-34

KPMG (2020d). The covid-19: central bank of Nigeria (cbn) support measures, financial reporting considerations for banks and other financial institutions.1- 4p.

KPMG (2020e). The impacts of covid-19 on the Nigerian consumer and industrial markets. *BEA, Macroeconomic Advisors by IHS Markit, Haver Analytics*), 5(1)|1 - 18.

KPMG Economics, *(2*020c). Covid-19: A business impact series; transitioning to a post twin shocks world: Strategic decisions, BEA, *Macroeconomic Advisors by IHS Markit, Haver Analytics*)5(1)|1 - 27.

KPMG (2020). A Business impacts series; financial, tax and regulatory considerations to manage covid-19 disruptions.1 -26.

KPMG(2020f). The Twin-shocks (covid-19 pandemic & oil price war): An implication for the banking sector, analysis of impacts and potential mitigation strategies. 1 –25.

Lancet, T. (2020). Covid-19: Protecting healthcare workers. *Lancet* 395 (10228), 922. doi:10.1016/S0140-6736(20)30644-9

Laura, W. (2020). Concerns regarding availability of raw   material amid covid-19. www.researchchandmarket.com .

McGuire, J., Schneeweiss, T. and Hill, J. (1986). An Analysis of alternative measures of startegic performance. *Advances in Strategic Managemen*t, 4(2) 127-154.

Meyer, M. W. and Gupta, V. (1994). The performance paradox. In B.M. Staw and L. L. Cummings(Eds.), *Research in Organizational Behaviour.* JAI Press.

Moghanibashi-Mansourieh, A. (2020). Assessing the anxiety level of Iranian general population during covid-19 outbreak. *Asian J. Psychi.* 51, 102076. doi:10.1016/j.ajp.2020.102076

Okiwo O. (2020). The covid-19 challenges and opportunity in Nigeria's oil and gas industry. http://www.Businessday.ng/org.ng.

Olivier, B., Marie-Christine B., Léo R. and Laurence G. (2021). Organizations management of the covid-19 pandemic: a scoping review of business articles. *MDPI Journal of Sustainability, Laval University, Canada*. https://doi.org/10.3390/su13073993

Ozili P, and Arun T. (2020). Spillover of covid-19: Impact on the global economy. *Electronic Journal*; 2020. https://doi.org//ssrn.

Ozili P. K. (2020). Covid-19 pandemic and economic crisis: The Nigerian experience and structural causes, Munich Personal RePEc Archive; 1-19.

Panagiotis, L. and Konstantinos (2005). *Factors affecting firm competitiveness: Greek industry.* Greek export directory 2004-2005. Department of Economics, School of Economics and Management, University of Peloponnese

Pierre, J., Timothy, M. D., George, S. Y. and Gerry, J. (2009). Measuring organizational performance: Towards methodological Best practice. *Journal of Management.* 35(3) 718-804.

Quinn, R.E. and Roshrbaugh (1981). A Competing value approach to organizational effectiveness. *Public Productivity Review,* 5(1). 122-140.

Rogers, P., Bhatia, R. and Huber, A. K. (1984). Water as a social and economic good: How to put the principle into practice. *Global water Partnership and Swedish International Development Cooeperation Agency*, Stockholm, Sweden 456p.

Rowe, W. G., Morrow, J. L. and Finch, J. F. (1995). Accounting, market and subjective measures of firm performance: Theree sides of the same coin? *Academy of Management Meeting, Vancouver, Canada.* 1123p.

Tourish, D. (2019). *Management studies in crisis: fraud, deception and meaningless research.* Cambridge University Press.

UNCTAD. (2020). The global impact of the corona virus(covid-19) pandemic, trade and development report; 45-89.

Ursula, G. and Wilderom, P. M. (1997). Organizational effectiveness = corporate performance? Why and how two research traditions need to be merged. *Business Academic Research Journal.* 4(4), 213- 236.

Venkatraman, N. and Ramanujam, V. (1986). Measurement of business performance in strategic research: A Companion of approaches. *Academy of Management Review,* 11(4). 811 – 814.

Vieira, R. (2010). *The relationship between liquidity and profitability: An exploratory study of airline companies between 2005 and 2008.* Master Thesis, University of Umea.

Zhang, S. X., Liu, J., Afshar J. A., Nawaser, K., Yousefi, A., Li, J. (2020). At the height of the storm: healthcare staff's health conditions and job satisfaction and their associated predictors during the epidemic peak of COVID-19. *Brain Behav. Immun.* 87, 144–146. doi:10.1016/j.bbi.2020.05.010.

APPENDIX 1

Table 4.2: Analysis of Respondents' Views on Effects o f Covid -19 on Organizational Performance of SMEs in Nigeria

ITEM CODE	RESEARCH STATEMENTS / ITEMS	SA	A	U	D	SD
COVID	**COVID-19 EPIDEMIC PERIOD**					
COVID1	Covid-19 epidemic period was quite challenging to SMEs in Nigeria.	125 (41.7 %)	28 (9.3%)	52 (17.3 %)	53 (17.7%)	42 (14.0%)
COVID2	During Covid-19 epidemic period, our business was not operational.	97 (32.3 %)	83 (27.7 %)	34 (11.3 %)	36 (12.0%)	50 (16.7%)
COVID3	Some of our employees were infected during Covid-19 epidemic period.	104 (34.7 %)	105 (35.0 %)	16 (5.3%)	26 (8.7%)	47 (15.7%)
COVID4	Some of our inventories were damaged during Covid-19 epidemic period.	62 (20.7 %)	141 (47.0 %)	19 (6.3%)	26 (8.7%)	52 (17.3%)
SALES	**SALES VOLUME DURING COVID-19 EPIDEMIC PERIOD**					
SALES1	Our sales were declining during Covid - 19 epidemic period.	102 (34.0 %)	88 (29.3 %)	53 (17.7 %)	19 (6.3%)	38 (12.7%)
SALES2	Our marketers were lockdown during Covid-19 epidemic period.	95 (31.7 %)	87 (29.0 %)	23 (7.7%)	32 (10.7%)	63 (21.0%)
SALES3	Our advertising strategies were weakened during Covid -19 epidemic period.	99 (33.0 %)	86 (28.7 %)	32 (10.7 %)	34 (11.3%)	49 (16.3%)
SALES4	Our sales were not declining during Covid-19 epidemic period.	91 (30.3 %)	91 (30.3 %)	15 (5.0%)	34 (11.3%)	69 (23.0%)
OPEXP	**OPERATING EXPENSES DURING COVID-19 EPIDEMIC PERIOD**					
OPEXP1	We incurred more cost during Covid -19 epidemic period.	96 (32.0	67 (22.3	29 (9.7%)	67 (22.3%	41 (13.7%

OPEXP2	The prices of inventory were high during Covid-19 epidemic period.	78 (26.0%)	100 (33.3%)	7 (2.3%)	38 (12.7%)	77 (25.7%)
OPEXP3	We couldn't recover operating expenses during Covid-19 epidemic period.	130 (43.3%)	77 (25.7%)	18 (6.0%)	37 (12.3%)	38 (12.7%)
OPEXP4	We didn't incur more cost during Covid -19 epidemic period.	67 (22.3%)	96 (32.0%)	41 (13.7%)	67 (22.3%)	29 (9.7%)
PATRON	**PATRONAGE DURING COVID-19 EPIDEMIC PERIOD**					
PATRON1	We secured low patronage during Covid-19 epidemic period.	107 (35.7%)	85 (28.3%)	7 (2.3%)	52 (17.3%)	49 (16.3%)
PATRON2	Our customers were lockdown during Covid-19 epidemic period.	90 (30.0%)	107 (35.7%)	14 (4.7%)	70 (23.3%)	19 (6.3%)
PATRON3	We secured moderate patronage during Covid-19 epidemic period.	108 (36.0%)	99 (33.0%)	11 (3.7%)	24 (8.0%)	58 (19.3%)
PATRON4	We secure high patronage during Covid-19 epidemic period.	118 (39.31%)	60 (20.0%)	27 (9.0%)	37 (12.3%)	58 (19.3%)
ROA	**RETURN ON ASSET (ROA) OF SMES IN NIGERIA**					
ROA1	Covid-19 epidemic period has low effect on our ROA	100 (33.3%)	80 (26.7%)	18 (6.0%)	47 (15.7%)	55 (18.3%)
ROA2	Covid-19 epidemic period has moderate effect on our ROA	91 (30.3%)	78 (26.0%)	16 (5.3%)	69 (23.0%)	46 (15.3%)
ROA3	Covid-19 epidemic period has high effect on our ROA	92 (30.7%)	77 (25.7%)	19 (6.3%)	76 (25.3%)	36 (12.0%)
ROA4	Covid-19 epidemic period has no effect on our ROA	124 (41.3%)	59 (19.7%)	16 (5.3%)	68 (22.7%)	33 (11.0%)

Source: Authors' Field Survey Data conducted in September, 2021.