

# Coronavirus (Covid-19) Impact on Working Capital of Small and Medium-Scale Enterprises (Smes) in Nigeria

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**Abstract**

The outbreak of corona virus has resulted in a global health emergency, and global economic slowdown, this is a challenge to SMES, because this advanced down the whole world. This research has been carried out to investigate the impact of covid 19 on working capital of small and medium scale enterprise in Nigeria. Survey research design was adopted during the course of the study As part of this study, comprehensively structured questionnaires were distributed to the respondents in order to get relevant information associated with the research. 378 questionnaires were distributed and 370 were returned. The data collected were analyzed using multivariate test. The results show that Covid-19 has a statistically significant negative effect on all the working capital variables of small and medium enterprises under the study (inventory, receivables, payables and cash). In the light of this, the Nigerian Government should set up an evaluation committee that will look into these negative effects of covid 19 on SMEs and provide assistance so as to guarantee the continuity of those businesses.

**Keywords:** Working capital, Corona Virus, Small and Medium-Scale Enterprises, Receivables and Payables.

## 1. Introduction

Corona virus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus, SARS-COV-2. According to International Trade Centre, Covid-19 outbreak has caused a global health emergency and global economic slowdown, this is a challenge to SMES because this advanced down the whole world. Zhang (2020) examined the covid-19's impact on China's small and medium-sized businesses. Since the unparalleled Covid-19 outbreaks began in November 2019 in Hubei Province China, business activities in the world second largest economy grinded to a halt. More so, the small medium enterprises in other parts of the world are being urged to take part in a major survey detailing the impact of the Covid-19 pandemic on the industries. Covid-19 outbreak has caused more problems to SMES in the following ways, staff wages, rent, loan repayment, the company may be considering laying of staff, due to their inability to maintain cash flow, as a result of the idle capacity caused by this unprecedented situation. This imbroglio has necessitated shortage of workers, shortage of raw materials, and increase in permanent prices and delay in goods delivery.

In Nigeria most populated places are shut down and curfew across the states for example Lagos, Ogun and Abuja all went into lockdown to avoid the spread of this covid-19 pandemic and other states followed the Federal Government order. Working capital are required for the day-to-day production activities of goods and services by the company, it represents the amount that is invested in assets that are expected to be realized within the years of trading. It is investment that are used continually, therefore it is not a permanent investment. The following items are used to measure the working capital: inventory, payables, receivables and cash. These items are funded either by short-term finance or medium-term finance and for the purpose of this research we defined SMEs as those investments that fall within a band width of 500 thousand Naira to 2 million Naira respectively with more than 50 to 100 paid employees.

The focus of this study is to investigate the effect of covid-19 on inventories, payables, receivables and cash of small and medium-sized enterprises in the Nigeria context .

### 1.1 *Statement of the Research Problem*

While COVID- 19 (a global pandemic) has been defined as an illness caused by novel coronavirus referred to as severe acute respiratory syndrome, (Cennimo 2020) and its negative effect has been enormous. Particularly, progressions in market capitalization in the world's biggest economies (China and USA) have been seriously truncated (Lopez-Cordova, 2020a). Remarkably, this has puts to halt activities of China's small and medium Enterprises which generates 90% of the country's employment, account for 80% of exports and 70% of gross domestic (Zhang 2020). For most developing economies, like Nigeria the odds of sliding into a downturn are gradually expected as the global coronavirus outbreak puts severe pressure on the economy. As for Nigeria, the country is still sluggishly grappling with recovery from the 2016 economic recession which was a fall out of global oil price crash and insufficient foreign exchange earnings to meet imports. Unfortunately, revenue assumptions were premised on increased global oil demand and stable market with oil price benchmark and oil output respectively at \$57 per barrel and 2.18 Million Barrels Per Day may become unrealistic. To make it worse, the emergence of COVID-19 and its increasing incidence in

Nigeria has called for drastic review and changes in the earlier revenue expectations and fiscal projections, compared to events that led to recession in 2016, the current state of the global economy poses more difficulties ahead as the oil price is currently below US\$30 with projections that it will dip further going by the price war among key players in the industry. Based on the foregoing, the researcher intends to investigate the effect of Covid-19 on working capital management of SMEs in Nigeria. The choice of Small and Medium-Scale Enterprises has been informed by the fact that these enterprises have been ascertained to be the brain behind economic prosperity of many advanced economies including China and USA. (Li & Matlay, 2006; Chen, 2006; Gibb & Li 2003; Hiatt & Wesley 2014; Druker, 2009; Bonn, 2016). Hence the need to checkmate the expected devastating effect of the current pandemic on SMEs activities in Nigeria cannot be over-emphasized.

Although similar studies have been conducted to ascertain the impact of SMEs on the development of the Nigerian economy but to the best of the researchers' knowledge none of these studies has been able to reveal the impact of COVID-19 on working capital management of SMEs in Nigeria. For instance, Bukki, Oguntimehin and Adeyemi (2019) studied SMEs owners' resources mobilization and innovative culture in south-west of Nigeria, Adediran, Josiah, Bosun-Fakunle and Imuzeze (2012) studied the impact of working capital management on profitability of SMEs in Nigeria, while Ishola, Oladipo and Oluseyi (2015) carried out a study on SMEs and Economic Growth in Nigeria. Hence, it is worthy to note that this study is poised empirically to investigate the effect of COVID-19 on working capital management of SMEs, while prior similar studies examined how SMEs impact growth of the Nigerian economy. Therefore this gap in knowledge provides justification for this present study.

### *1.2 Research objectives of the study*

The broad objective of this study is to assess the effect of coronavirus (COVID-19) on working capital management of Small and Medium-Sized Enterprises in Nigeria. However, the specific objectives were to:

1. Determine the effect of COVID 19 on inventory of SMEs in South West geopolitical zone of Nigeria
2. Evaluate the effect of COVID 19 on receivables of SMEs in South West geopolitical zone of Nigeria
3. Investigate the effect of COVID 19 on payables of SMEs in South West geopolitical zone of Nigeria
4. Ascertain the effect of COVID 19 on cash of SMEs in South West geopolitical zone of Nigeria.

### *1.3 Scope of the study*

The intent of this study is to investigate the effect of COVID-19 on working capital of small-medium-enterprises in Nigeria by employing all six south-west geopolitical zones consisting of Oyo, Edo, Osun, Lagos, Ekiti, and Ondo states.

## 2. Literature Review

### 2.1 Covid-19

Diseases that are caused by viruses, if contacted by human beings, generally develop to fever on the average 5-6 days after infection, tiredness and dry cough and difficulty in breathing emanate and subsequently could degenerate if not nipped in the bud, such diseases have a more severe impact on the older people and people that have underlying medical challenges/ailments. Small businesses around the world are facing challenging economic conditions under the COVID-19 pandemic. The shutdown of large parts of the world economy has caused a simultaneous and massive shock to supply and demand for consumption and investment specifically, small and medium-scale enterprises (SMEs) faces production constraints, isolation or containment of workers limit production. Considering their access to finance, SMEs typically have lower cash reserves and go out of business much faster compared to limited liability companies. Also, they experience supply chain disruptions because SMEs typically have small inventories. In the same vein, shortages can affect SMEs faster and harder than large firms. Sourcing from new suppliers or absorbing price increases is challenging for them while policy uncertainty, rapid changes in policies pose difficulties for SMEs navigating through the crisis (Marrion & Mohan, 2020)

### 2.2 Concept of Working Capital

No matter the amount spent on equipment, plant and machinery, buildings etc if the ingredients required for production are not efficiently managed, the entire amount committed to the project will become a waste. This is why this topic is so crucial and its needs to be appreciated as such.

Working capital refers to the items that are required for the day-to-day production of goods to be sold by a company, it can be defined as the excess of current assets over current liabilities. It is the same as net current assets. It represents the amount that is invested in assets that are expected to be realized within the year's trading. It is not a permanent investment but as the name implies it is continually in use, being turned over many times in a year. It is used to finance production, to invest in inventory and to provide credit for customers its main components being stock, debtors, creditors and cash. These assets are needed for the day-to-day manufacturing and or trading activities of a business. They can be funded either by short-term finance that is current liabilities, or by medium- and long-term finance.

### 2.3 Small and Medium -Scale Enterprises (SMEs)

Small and Medium-Scale Enterprises have three characteristics: firms are likely to be unquoted, ownership of the business is restricted to a few individuals, typically a family group, it provides and contributes to all sectors of the economy. The sources of finance are owner finance, overdraft finance, bank loan trade credit and so on for the purposes of this study, small and medium-scale enterprises are defined as those with investments in machinery and equipment not more than 500,000 Naira to 2 million Naira and 50 to 100 paid employees, respectively.

#### 2.4 Empirical Review

Zhan (2020) examined the effect of Covid-19 in china's SMES, the result shows that Covid-19 has landed a heavy blow on Chinese SMES with huge differential effects across sectors and regions.

Abolaji, Yekinni and Adeyemi (2019), examined resource mobilization and innovative culture of small and medium-scale enterprises (SMEs) owners in South-West, Nigeria. Five research questions were raised. The study adopted the descriptive survey research design. The sample comprised one thousand, four hundred and seventeen (1417) SME owners / managers out of which one thousand, three hundred and eighty-two (1382) responded appropriately, this accounted for 97% response rate. Data were collected using two instruments; these are Resource Mobilization Questionnaire ( $r = 0.85$ ) and Innovative Culture Scale ( $r = 0.68$ ). Data were analyzed using descriptive statistics, Pearson Product Moment Correlation and Independent t test. The results showed that SME owners possessed high level of resource mobilization and innovative culture in South-West, Nigeria. Significant relationship existed between resource mobilization and innovative culture of SME Owners' in South-West, Nigeria. Furthermore, there was significant difference in the score on resource mobilization of SME Owners while no significant difference existed in the score on innovative culture of SME Owners in South-West, Nigeria.

Ishola, Oladipo and Oluseyi (2015) examines the effect of COVID-19 related cases and lockdown measures on the issues related to Small and Medium Scale Enterprise in Nigeria. Using an electronic data collection approach, this study analyzes the data using the linear probability model to estimate the effect of the pandemic on the entrepreneurs and model the factors influencing coping strategies using a multivariate probit model. We found that majority of the entrepreneurs have been affected (both severely and slightly) by the COVID-19 pandemics through the partial and total lockdown and movement restrictions. We found that the COVID-19 pandemic's effect differs by sector of the economy (agriculture versus non-agriculture). For instance, partial lockdown measures had an increasing likelihood effect on low sales among the enterprises especially for the non-agricultural sector but there is a contrary result in the context of the food and agriculture sector. In addition, partial lockdown increases the likelihood of switching approaches of business (coping strategies) whereas total lockdown has a negative influence on the coping strategies. One of the policy implications of our study is the need to address social protection approaches (such as palliative measures) which can help to cushion the effect on the pandemic on the Small and Medium Scale Enterprise in Nigeria.

Enesi and Ibrahim (2021) investigated the impact of covid 19 on the Performance of Small and Medium Business Enterprises in Abuja-FCT, Nigeria. The study adopted a quantitative research technique using data collection method through the administration of structured questionnaire on 10 selected SMEs with 100 respondents in Municipal Area Council in Abuja which were selected purposively to elicit insights into the effect of COVID-19 pandemic on their businesses. Findings from the analysis indicated that the COVID-19 pandemic's effect includes: loss of competent staff resulting from reduction in staff salary, low revenue or

income generation, lack of patronage, and lack of sincerity on the part of government to reduce the prevalence of the pandemic. The SMEs are often faced with problems such as: inability to pay salaries, repay loans and rent. They established that covid has a significant effect on the performance of SMEs. Most respondents suggested that government should introduce a well monitored and structured palliative scheme, poverty alleviation programs, reduced interest rates, relax loans and defer tax payments. There are related variables that were not mentioned in this study. It is therefore necessary to consider them in future research work.

Adediran, Josiah, Bosun-Fakunle and Imuzeze (2012), empirically investigates the impact of working capital management on the profitability of a sample of small and medium-sized Nigerian firms. The data for the study were collected from 30 SMEs covering the single period of 2009. Data was collected from secondary sources (financial statement) and was analyzed using the multiple regression analysis. The results which are robust to the presence of endogeneity, demonstrate that managers can create value by reducing their firm's number of day's accounts receivable and inventories. Equally, shortening the cash conversion cycle also improves the firm's profitability.

### 3. Methodology

Survey research design was employed during the course of the study, while, Krejcie and Morgan sampling technique was used to obtain the sample size. The choice of the descriptive survey was guided by the fact, that they have large clusters of small and medium enterprises in the geo political zone. The questionnaires were subjected to ethical and biosafety checks for academic integrity and plausibility, resulting in all cases being usable.

#### 3.1 Population

The population of the study consists of 26,744 registered SMEs located within south west geo-political zone of Nigeria (Abolaji; Yekinni & Adeyemi 2019)

#### 3.2 Sample Size and Techniques

Krejcie and Morgan 1970 sampling technique was adopted in order to determine the sample size. Hence the sample size is represented as;

$$S = \frac{X^2 NP(1-P)}{D^2(N-1) + X^2 P(1-P)}$$

Where:

$X^2$  = the table value of chi-square for 1 degree of freedom at the desired confidence level(3.841)

S = the sample size

N = the population size

P = Population proportion (assumed to be 0.50)

d = Degree of accuracy (expressed as a proportion= 0.05)

$$S = \frac{3.841 \times 226744 \times 0.5 \times 0.5}{(0.05^2 \times 26743) + 3.841 \times 0.5 \times 0.5}$$
$$= \frac{25680.926}{67.81775} = 378.6$$

The sample size is 378 SMES to be used in the south-west geopolitical zone in Nigeria.

### *3.3 Sources of data*

Primary source of data gathering was employed during the course of the study. Consequently, a well-structured, questionnaire was used to gather responses from various respondents. The questionnaire was administered by the cohort of researchers and all collated information were subjected to reliability and validity tests with the aid of Statistical Package for Social Sciences (SPSS ) version 23.

### *3.4 Method of Data Analysis*

One -Way Anova (Multivariate test) was used to test for the effect of Covid 19 on SMEs working capital variables under the study (inventory, receivables, payables and cash). This method is adopted because we have only one independent variable to be regressed against four dependent variables.



### 3.5 Data Analysis

Table 1. Descriptive Statistics

S/N	Variable	Frequency	Percentages
<b>1</b>	<b>No of years in business:</b>		
	Below 5years	56	15.1
	5 – 10years	248	67.0
	10years and above	66	7.8
	Total	370	100
<b>2</b>	<b>Gender:</b>		
	Male	205	55.4
	Female	165	44.6
	Total	370	100
<b>3</b>	<b>Marital Status:</b>		
	Single	80	21.6
	Married	264	71.4
	Divorced	26	7.0
	Total	370	100
<b>4</b>	<b>Educational Qualification:</b>		
	WACE	19	5.1
	OND/ NCE	122	33.0
	BSc. /HND	174	47.0
	MSc.	30	8.1
	Others	25	6.8
	Total	370	100

Table 1 above shows the demographic presentation of the respondents. The number of years in business shows that a vast majority of the respondents representing 56(15.1%) have been in business below 5years, while 248(67%) turned out to be in business between 5 to 10 years and 66(7.8%) respondents appeared to have been in business for 10years and above.

The gender of the respondents representing 205(55.4%) and 165(44.6%) were male and female respectively. Also, their marital status shows that 80(21.6%) appear to have been single, 264(71.4%) were married, while 26(7%) are also divorced. Their educational qualifications shows that 19(5.1%) possess WACE/ SSCE ,while a staggering amount of the participants representing 122(33.0) have OND/NCE, An overwhelming majority representing 174(47%) have BSc./ HND while 30(8.1%) are holders of MSc qualifications. and 25(6.8%) have other qualifications that were not specified in the questionnaire.

Table 2. Reliability Statistic test for variables

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.985	.986	30

**Author's computation, 2021.**

Using the rule of Geory and Mallery (2003), table 2 above which shows the reliability test of the variables. The result for the variable shows an excellent result of 0.985. Based on this we assumed that the degree to which an instrument yields is consistent.

*a. Question Analysis*

The tables below shows the percentage distribution of SMEs by Working capital parameters

Table 3. Does covid 19 have any significant effect on inventory of SME's in Nigeria?

S/N	COVID-19 PANDEMIC ON INVENTORY	SA	A	N	D	SD	Mean	STD
INVET 1	Issuing of materials was rigid during the pandemic.	199 (53.8%)	163 (44.1%)	3 (0.8%)	3 (0.8%)	2 (0.5%)	4.4973	0.61705
INVET 2	Reduction in production because of delay in supplies of materials during the pandemic	197 (53.2%)	162 (44.1%)	3 (0.8%)	6 (1.6%)	2 (0.5%)	4.4757	0.65494
INVET 3	There was stock out during the pandemic.	196 (53.0%)	162 (43.8%)	4 (1.1%)	4 (1.1%)	4 (1.1%)	4.4649	0.6828
1NVE T4	Majority of staff could not come to work, due to the unprecedented disruption caused by the covid 19 pandemic.	197 (53.2%)	160 (43.2%)	6 (1.6%)	6 (1.6%)	1 (0.3%)	4.4757	0.64241
1NVE T5	Low production was evident during the pandemic due to the incessant lockdown.	201 (54.3%)	165 (44.6%)	2 (0.5%)	2 (0.5%)	0 (0%)	4.5270	0.54158

Source: Field Survey, 2021

Table 3 above shows that most of the respondents show a level of agreement on the statement that "issuing of materials was rigid during the pandemic" 53.8% (199) and 44.1% (163) opted for strongly agree and agree respectively, while 0.8% (3) were unequivocally undecided and also stuck to disagree respectively, and 0.5% (2) strongly disagreed.

53.2 %( 197) and 43.8 %( 162) opined strongly agree and agree to the second statement “*Reduction in production because of delay in supplies of materials during the pandemic*” while 0.8 %( 3) were undecided and 2.1% (8) disagreed concurrently. Also, 53 %( 196) and 43.8 %( 162) indicated strongly agreed and agreed to the third statement “*There was stock out during the pandemic*” 53.2%(197) and 43.2%(160) strongly agreed and agreed to the fourth statement “*Majority of staff could not come to work due to the unprecedented disruption caused by covid 19*” respectively while 54.3% (201) and 44.6%(165) strongly agreed and agreed to the fifth statement “*Low production was evident during the pandemic due to the incessant lockdown*”.

Table 4. Does covid 19 have any significant effect on receivables of SMEs in South West geopolitical zone of Nigeria

	<b>COVID-19 PANDEMIC ON RECEIVABLES</b>	SA	A	N	D	SD	Mean	STD
REC1	We cannot get back to our debtors by giving out discount so that they will be encouraged to pay back on time	199 (53.8%)	157 (42.4%)	3 (0.8%)	10 (2.7%)	1 (0.3%)	4.4676	0.67897
REC2	We can manage the debt by credit ceased by giving debtors longer time	200 (54.1%)	156 (42.2%)	3 (0.8%)	9 (2.4%)	2 (0.5%)	4.4676	0.69084
REC3	Debt collection enables us to reduce the cost of investment in debtors	199 (53.8%)	157 (42.4%)	4 (1.1%)	9 (2.4%)	1 (0.3%)	4.4703	0.67107
REC4	We cannot give promo to our debtors	203 (54.9%)	159 (43.0%)	2 (0.5%)	6 (1.6%)	0 (0%)	4.5108	0.59913
REC5	During the pandemic there was incomplete receipt of incomes	201 (54.3%)	156 (42.2%)	2 (0.5%)	10 (2.7%)	1 (0.3%)	4.4757	0.67531

Source: Field Survey, 2021

Table 4 above shows that most of the respondents show a level of agreement on the statement that “*We cannot get back to our debtors by giving out discount so that they will be encouraged to pay back on time*”. An upper limit of participants representing 53.8% (199) and 42.4 %( 157) held to a stand point of strongly agree and agree respectively, while 0.8 %(3) were in favour of undecided and disagreed respectively, 3.0%(11) of participants also disagreed. 54.1 %( 200) and 42.2 %( 156) strongly agreed and agreed to the second statement “*We can manage the debt by credit ceased by giving debtors longer time*” while a miniature amount of participants representing 0.8 %( 3) affirmed undecided and 3.0% (11) also chose disagree. Also, 53.8 %( 199) and 42.4 %( 157) indicated strongly agree and agree to the third statement “*In the aspect of debt collection we can reduce the cost of investment in debtors*” 54.9%(203) and 43.0%(159) indicated strongly agree and agree to the fourth statement “*We*

*cannot give promo to our debtors”* respectively while 54.3% (201) and 42.2%(156) accounted for strongly agree and agree to the fifth statement *“During the pandemic the incomes are not received completely”*.

Table 5. Does covid 19 have any significant effect on payables of SMEs in South West geopolitical zone of Nigeria

	<b>COVID -19 PANDEMIC ON PAYABLES</b>	<b>SA</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>SD</b>	<b>Mean</b>	<b>STD</b>
PAY1	Creditors are not ready to issue materials.	201 (54.3%)	149 (40.3%)	11 (3.0%)	3 (0.8%)	6 (1.6%)	4.448665	0.742668
PAY2	Our creditors gave promo so that we can pay them their money within available time limits.	200 (54.1%)	150 (40.5%)	11 (3.0%)	5 (1.4%)	4 (1.1%)	4.4514	0.72062
PAY3	Our creditors gave us discount in order for their money to be paid within the due date.	201 (54.3%)	149 (40.3%)	11 (3.0%)	4 (1.1%)	5 (1.4%)	4.4514	0.73182
PAY4	We are not able to pay our creditors on time because cash is not readily available	203 (54.9%)	151 (40.8%)	10 (2.7%)	2 (0.5%)	4 (1.1%)	4.4784	0.6338
PAY5	Our company was planning to reduce staff due to the adverse consequences of the pandemic.	201 (54.3%)	149 (40.3%)	12 (3.2%)	3 (0.8%)	5 (1.4%)	4.4541	0.72456

Source: Field Survey, 2021

Table 5 above shows that most of the respondents show a level of agreement on the statement that *“Creditors are not ready to give us materials”* 54.3% (201) and 40.3 % ( 149) opted for strongly agree and agree respectively, while a minute segment opted for 3.0 % ( 11) and 0.8% (3) by indicating undecided and disagreed respectively, and 1.6 % ( 6) strongly disagreed. 54.1 % ( 200) and 40.5 % ( 150) strongly agreed and agreed to the second statement *“Our creditor gave promo so that we can pay then their money within stipulated time limits”* while 3.0 % ( 11) were undecided and 2.5% (9) firmly disagreed respectively . Also, 54.3 % ( 201) and 40.3 % ( 149) declared strongly agree and agree to the third statement *“Our creditors gave us discount in order for their money to be paid as and when due”* 54.9%(203) and 40.8%(151) reached a consensus on strongly agree and agree to the fourth statement *“We are not able to pay our creditors on time because cash is not readily available”* respectively while 54.3% (201) and 40.3%(149) opinionated strongly agree and agree to the fifth statement *“Our company was planning to reduce staff due to the adverse consequences of the pandemic”*.

Table 6. Does covid 19 have any significant effect on cash of SMEs in South West geopolitical zone of Nigeria

	COVID- 19 PANDEMIC ON CASH	SA	A	N	D	SD	Mean	STD
CAS1	The residual amount of money left during the pandemic is not enough for businesses to survive.	201 (54.3%)	162 (43.8%)	3 (0.8%)	3 (0.8%)	1 (0.3%)	4.5108	0.59002
CAS2	The cash is no longer enough to pay workers their wages	203 (54.9%)	165 (44.6%)	2 (0.5%)	0 (0%)	0 (0%)	4.5432	0.50955
CAS3	Staff may be laid off due to disruption in services.	201 (54.1%)	162 (43.8%)	3 (0.8%)	5 (1.4%)	1 (0%)	4.5054	0.59009
CAS4	We can solve the problem of cash drought through availing the support of bank loans	201 (54.3%)	163 (44.1%)	3 (0.8%)	2 (0.5%)	0 (0.3%)	4.5162	0.57595
CAS5	Cash flow operations have drastically reduced during the period of the pandemic.	203 (54.9%)	165 (44.6%)	2 (0.5%)	0 (0%)	0 (0%)	0.5432	0.50955

Source: Field Survey, 2021

Table 6 above shows that most of the respondents show a level of agreement on the statement that “*The residual amount of money left during the pandemic is not enough for businesses to survive*”. A vast majority of participants representing 54.3% (201) and 43.8 % ( 162) firmly stuck to strongly agree and agree respectively, while 0.8 % ( 3) were undecided, and 1.1 % ( 4) indicated disagree to the question posed to them. 54.9 % ( 203) and 44.6 % ( 165) affirmed strongly agree and agree to the second statement “*The cash is no longer enough to pay workers their wages*” unfortunately a very small segment, representing 0.5 % ( 2) were undecided. Also, 54.1 % ( 200) and 43.8 % ( 162) specified strongly agree and agree to the third statement “*Staff may be laid off due to disruption in services*” 54.3%(201) and 44.1%(160) strongly agreed and agreed to the fourth statement “*We can solve the problem of insufficient cash through availing the support of bank loans*”. A concessionary amount of participants representing 54.9% (203) and 44.6%(165) stipulated strongly agree and agree to the fifth statement “*Cash flow operations have drastically reduced during the period of the pandemic*”.

Table 7. Effect of Covid 19 Pandemic

	COVID-19 PANDEMIC	N	A	N	D	SD	Mean	STD
COVD191	Covid-19 originated from China in a city called Hubei.	200 (54.1%)	161 (43.5%)	2 (0.5%)	6 (1.6%)	1 (0.3%)	4.4946	0.62576
COVD192	Covid-19 has killed over millions of people in the world	197 (53.2%)	161 (43.5%)	5 (1.4%)	6 (1.6%)	1 (0.3%)	4.4784	0.63827
COVD193	Covid-19 locked the world down for many successive months.	198 (53.5%)	161 (43.5%)	5 (1.4%)	5 (1.4%)	1 (0.3%)	4.4865	0.62563
COVD194	Covid-19 crippled the world economy, due to its resultant effects.	197 (53.2%)	159 (43.0%)	5 (1.4%)	7 (1.9%)	2 (0.5%)	4.4649	0.6783
COVD195	Covid-19 second wave has appeared and is more catastrophic than the initial wave.	201 (53.8%)	163 (44.1%)	2 (0.5%)	4 (1.1%)	0 (0%)	4.5162	0.57122

Source: Field Survey, 2021

Table 7 above shows that most of the respondents demonstrated a level of agreement on the statement that “*Covid-19 originated from China in a city called Hubei*”. Moreover, when the participants were categorically asked, 54.1% (200) and 43.5 % (161) strongly agreed and agreed respectively, while 0.5 % (2) were undecided and 1.9% (7) disagreed. 53.2 % (197) and 43.5 % (161) unanimously selected strongly agree and agree to the second statement “*Covid-19 has killed over millions of people in the world*” while 1.4 % (5) opted for undecided and 1.8% (7) disagree. Also, an overwhelming majority of participants representing 53.5 % (198) and 43.5 % (161) chose strongly agree and agree to the third statement “*Covid-19 locked the world down for many successive months*” 53.2% (197) and 43.0% (159) reportedly chose strongly agreed and agreed to the fourth statement “*Covid-19 crippled the world economy due to its resultant effects*” respectively, while 54.3% (201) and 44.1% (163) responded by affirming strongly agree and agree to the fifth statement “*Covid-19 second wave has appeared and is more catastrophic than the initial wave*”.

### 3.7 Test of hypothesis

Table 8. Multivariate Test

Multivariate Tests <sup>a</sup>							
Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	
Intercept	Pillai's Trace	.973	3286.752 <sup>b</sup>	4.000	363.000	.000	.973
	Wilks' Lambda	.027	3286.752 <sup>b</sup>	4.000	363.000	.000	.973
	Hotelling's Trace	36.218	3286.752 <sup>b</sup>	4.000	363.000	.000	.973
	Roy's Largest Root	36.218	3286.752 <sup>b</sup>	4.000	363.000	.000	.973
cov19_m	Pillai's Trace	1.580	59.755	16.000	1464.000	.000	.395
	Wilks' Lambda	.017	195.720	16.000	1109.621	.000	.641
	Hotelling's Trace	26.074	589.100	16.000	1446.000	.000	.867
	Roy's Largest Root	24.863	2275.002 <sup>c</sup>	4.000	366.000	.000	.961

a. Design: Intercept + cov19\_m

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

### SPSS 23 output

From the above table we discovered that there is a statistically significant difference (using Wilks' Lambda) in working capital variables based on the of covid 19 pandemic,  $F(16, 1109) = 195.7, p < .0005$ ; Wilk's  $\Lambda = 0.017$ , partial  $\eta^2 = .641$

Since it has been established from the multivariate test that there is a statistical significant difference in working capital variables under the study based on covid 19 pandemic, we further consider the test of between subject- effects to enable us established the effect at individual dependent variable level.

Table 9. Test of Between –Subject Effects

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	inventory	117.688 <sup>a</sup>	4	29.422	980.727	.000	.915
	receivables	111.289 <sup>b</sup>	4	27.822	245.604	.000	.729
	payables	140.045 <sup>c</sup>	4	35.011	245.089	.000	.728
	cash	109.413 <sup>d</sup>	4	27.353	1434.27	.000	.940
Intercept	inventory	136.245	1	136.245	4541.44	.000	.925
	receivables	182.412	1	182.412	1610.27	.000	.815
	payables	102.573	1	102.573	718.037	.000	.662
	cash	173.698	1	173.698	9107.83	.000	.961
cov19_m	inventory	117.688	4	29.422	980.727	.000	.915
	receivables	111.289	4	27.822	245.604	.000	.729
	payables	140.045	4	35.011	245.089	.000	.728
	cash	109.413	4	27.353	1434.27	.000	.940
Error	inventory	10.980	366	.030			
	receivables	41.461	366	.113			
	payables	52.284	366	.143			
	cash	6.980	366	.019			
Total	inventory	7691.000	371				
	receivables	7661.000	371				
	payables	7593.000	371				
	cash	7733.000	371				
Corrected Total	inventory	128.668	370				
	receivables	152.749	370				
	payables	192.329	370				
	cash	116.394	370				

a. R Squared = .915 (Adjusted R Squared = .914)

b. R Squared = .729 (Adjusted R Squared = .726)

c. R Squared = .728 (Adjusted R Squared = .725)

d. R Squared = .940 (Adjusted R Squared = .939)

### SPSS 23 output

From table 9 above, the result shows that Covid 19 has a statistically significant effect on all the working capital variables under the study. Inventory ( $F(4,366) = 980.73$ ,  $p < 0.0005$ : partial  $\eta^2 = .915$ ), Receivables ( $F(4,366) = 245.73$ ,  $p < 0.0005$ : partial  $\eta^2 = .729$ ), Payables ( $F(4,366) = 245.73$ ,  $p < 0.0005$ : partial  $\eta^2 = .728$ ) and Cash ( $F(4,366) = 1434.27$ ,  $p < 0.0005$ : partial  $\eta^2 = .940$ )



Furthermore, the values of the R-square and Adjusted R square shows a good fit for the model.

### **H01: COVID 19 does not have significant effect on inventory of SMEs in South West geopolitical zone of Nigeria**

From the above result, we discovered that covid 19 has a significant effect on the inventory of SMEs in South West geopolitical zone of Nigeria because the p-value  $(0.000) < 0.05$  based on this, we reject the null hypothesis which reveals that , covid 19 does not have significant effect on inventory of SMEs in South West geopolitical zone of Nigeria and accept our alternate hypothesis that implies that covid 19 has a significant effect on the inventory of SMEs in South West geopolitical zone of Nigeria. The result is in tandem with that of Zhan 2020.

### **H02: COVID 19 does not have significant effect on receivables of SMEs in South West geopolitical zone of Nigeria**

From the above result, we discovered that covid 19 has a significant effect on the receivables of SMEs in South West geopolitical zone of Nigeria because the p-value  $(0.000) < 0.05$  based on this we reject the null hypothesis that say covid 19 does not have significant effect on receivables of SMEs in South West geopolitical zone of Nigeria and accept our alternate hypothesis that covid 19 has a significant effect on the receivables of SMEs in South West geopolitical zone of Nigeria. The result is consistent with the findings of Enesi and Ibrahim 2021.

### **H03: COVID 19 does not have significant effect on payables of SMEs in South West geopolitical zone of Nigeria**

From the above result, we discovered that covid 19 has a significant effect on the payables of SMEs in South West geopolitical zone of Nigeria because the p-value  $(0.000) < 0.05$  based on this we reject the null hypothesis that reveals that covid 19 ,does not have any significant effect on payables of SMEs in South West geopolitical zone of Nigeria and accept our alternate hypothesis that discovers covid 19 has a significant effect on the payables of SMEs in South West geopolitical zone of Nigeria. The result synchronizes with that of Enesi and Ibrahim 2021.

### **Ho4: COVID 19 does not have significant effect on cash of SMEs in South West geopolitical zone of Nigeria**

From the above result, we discovered that covid 19 has a significant effect on the cash of SMEs in South West geopolitical zone of Nigeria because the p-value  $(0.000) < 0.05$  based on this we reject the null hypothesis that implies covid 19 does not have significant effect on cash of SMEs in South West geopolitical zone of Nigeria and accept our alternate hypothesis that reveals covid 19 has a significant effect on the cash of SMEs in South West geopolitical zone of Nigeria. The result is in tandem with that of Zhan 2020 and Enesi and Ibrahim 2021.

## **4. Discussion of findings**

Results from our findings shows that covid 19 has a significant effect on inventory, receivables,

payables and cash of SMEs in the South West geopolitical zone of Nigeria. This shows that all the working capital variables considered in the study were affected by covid 19 and this also affirms that the SMEs really felt the effect of covid 19 and this may require them to solicit for financial assistance or support from the government in order to quickly come out of the consequential effect of the pandemic. Also this will be appropriate because SMEs account for almost 75% of businesses in Nigeria, if proper assistance in form of palliatives, decrease in interest rate were not provided to rescue these SMEs from the effect of covid 19, it will have a resultant effect on the whole economy.

## 5. Recommendations

The data and studies underpinning these recommendations encapsulate from the foregoing perspectives.

Government should take into paramount consideration the dynamics of the SMEs and make available non-interest or low interest bearing loans that can boost their production activities so as to recover from the consequential effect of the pandemic. Secondly, Government should inaugurate evaluation committees to steer the course of the SMEs by provision of palliatives funds that will enable them to continue their operations.

Paramountly, the study results underscores the importance of working capital management and projects the significance of Covid 19 on this particular dimension in small and medium scale enterprises in Nigeria. Investigations on the impact of covid 19 on working capital has been scarcely examined, although, given the legislative impetus for small and medium scale enterprises, there is a great need to explore working capital management in the small and medium scale enterprises domain. Working capital management should become a topical issue in Accounting and Finance research, because of the enormous effect, constructive or pessimistic, small scale enterprise systems have on the economy as a whole. This study visibly expresses that internal contextual factors such as cash, trade payables / material inventories, receivables, work in progress and finished goods influence working capital management. This study is one of the first pioneer researches to empirically examine the impact of covid 19 on SME's in developing economies. Future studies could explore comparatively the impact of covid 19 on working capital management in manufacturing companies from the perspective of both developing and developed economies in order to achieve broader generalizations.

The SME's are under severe pressure to boost financing parameters in order to contribute to income generation, employment and catalyzing development in urban and rural areas in Nigeria.

Having said that, we the writers concur that despite the down turn in economic activities, companies should try to raise finance through external sources. Notwithstanding, companies must continue to operate and only require a chunk of finance to operate. The need to continue operation vis-à-vis the suffocation experience in finance sourcing now leads to companies looking more critically inward as a bailout of the situation. One of the various ways of looking inward is managing working capital and adopting workable strategies going forward.

Apparently, we therefore acknowledge several limitations depicted in this study that could

advance broad insights for further research. First, diverse subsectors should have been taken into paramount consideration, in order to achieve impactful generalizations. Due to the adversarial effect, our studies examined a single industry, which happens to be quite different from most other studies.

The overdependence of a single key informant to examine the potency of the working capital parameters on SME's could suggest that the results could be subject to method bias. Future studies should also deliberate on reducing the effect of such bias by considering the ex post and ex ante position in order to minimize the effects of consistency artifacts.

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