

Financial Performance of Public Companies in Anambra State Amidst the Scourges of Covid-19 Pandemic Outbreak

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Abstract

The study determined the effect of Covid-19 pandemic on the financial performance of firms. Only publicly-owned companies that are located within the axis of Anambra state, Nigeria, were considered for the study. The study used Covid-19 business disruption and Covid-19 lockdown to represent the independent variable while profit level and cost level were proxies for financial performance. A sample size of 150 respondents was obtained. Using a survey descriptive research design, primary data were sourced for the study via self-administered questionnaires. Simple regression technique was deployed in testing hypotheses 1 and 2 of the study while Paired Sample T-test was used to test the third hypothesis of the study, both at 5% level of significance. The test of hypothesis revealed that: COVID-19 business disruption significantly and negatively affected the profit level of public companies in Anambra state ($F [1, 116] = 16.137$, $p\text{-value} = 0.000$); COVID-19 lockdown had a significant and positive effect on the cost level of public companies in Anambra state ($F [1, 116] = 36.802$, $p\text{-value} = 0.000$); there was a significant difference in the profit levels of public companies in Anambra state before and after COVID-19 lockdown ($t [1, 116] = 5.612$, $p\text{-value} = 0.000$). The study recommended that public firms should focus on building robust and yet flexible operational processes that is capable of adjusting to changes in situation such as Covid-19 pandemic.

Keywords: Covid-19, Financial Performance, Cost Level, Profit Level, Covid-19 Lockdown.

Introduction

Throughout the calendar months of the year 2020, the phases of economic meltdown and shutdown/lockdown of commercial activities that were witnessed this year as a result of the novel Coronavirus (Covid-19) pandemic have made it increasingly more difficult for companies to maintain adequate financial performance levels that is capable of maximising business profitability while reducing operating cost level (Gabriel, Keremah, Okpara & Mills, 2020). The Covid-19 surge left some threats to business enterprises and it is only organisations that have good practice of responsiveness, dynamism and flexibility that would survive such a blow as the ravages of the pandemic has adversely affected the corporate performance of both small and big business organisations (Nworie & Mba, 2022).

As an aftermath of one of the world's most tragic pandemic, the coronavirus (COVID-19) outbreak around the world has led to undesirable business disruptions worldwide resulting in huge business losses and threat to sustainability of enterprises, especially in Nigeria. Particularly in Anambra state, the ravages of the pandemic have thwarted vital business operations, impaired supply chains, cut down scales of production, reduced profit levels, increased general cost of production and raised alarm over the necessity for business continuity management. Therefore, there have been series of adverse economic implications of the novel coronavirus pandemic on the sustainability of businesses which has made a research on frameworks for the

revival of business during and post crises times such as the COVID-19 pandemic and other major disasters, a worthwhile case of study (Mayungbe, Muriithi & Ntarangwe, 2022; Akighir et al., 2022; Das, Sarkar & Debroy, 2022). The myriad of business problems faced by publicly-owned companies in Anambra range from policy inconsistency, inadequate road network, poor electricity, poor institutional quality to lack of incentives by the government (Osita, Maduka & Onuzulike, 2020).

It was with a great hope and flamboyant expectations that Nigerians woke up in the year 2020, when business owners in Nigeria made strategic plans for expansion and how best to maximise the wealth of their companies for good. It was unknown to everyone that there would be a very terrible threat that was lurking around in wait for a bold manifestation that later claimed the lives of many persons and led to loss of jobs and incomes (Gabriel, Keremah, Okpara & Mills, 2020). The year witnessed the ravages of a dreaded virus that was termed Covid-19, in short. The strange disease, as a global pandemic, influenced the health, social, religious and economic life of the people. In order to contain the spread of the virus, state governors in Nigeria declared lockdown across the states of the federation. The lockdown in Nigeria has currently been lifted while managers of public companies in Anambra continue to strive to take strategic actions that will enable them emerge from the pandemic stronger.

However, the reality of the novel Coronavirus (COVID-19) pandemic has been faced by every sector in the whole world. The outbreak tremendously brought about a huge economic loss for thousands of businesses across the globe (Dane, Akyuz & Opusunju, 2021), and Nigeria in particular. The upsurge of Covid-19 hit the Nigerian economy very hard as there were restriction on transportation of people and goods, significant disruption of outputs and exports, hindrance to the growth of the business by undercuts, loss of customers' patronage, etc. Some of the stock of inventory that were not able to be sold during the lockdown had become obsolete and lead to a loss in economic value. In the light of such government lockdown and a halt of business activities, companies in Anambra have been negatively affected by a sharp decline in sales which ultimately has continued to result in insufficient cash flow in carrying out various operations, financing and investing activities.

Consequently, the ravages of the pandemic have thwarted vital business operations, impaired supply chains, cut down scales of production, reduced profit levels, increased general cost of production and raised alarm over the necessity for business continuity management. More so, because the economy has come to a halt given the lights of the Covid-19 ravages, there have been a correspondent decrease in the returns on investments in most cases. Covid-19 spillover effect has compelled firms to make policies that will enable them save cost, avoid expansion in scale, conserve their funds and cut cost levels in order to preserve their funds. Therefore, there have been series of adverse economic implications of the novel coronavirus pandemic on the sustainability of businesses which have jointly made a research on frameworks for the revival of business during and post crises times such as the COVID-19 pandemic and other major disasters, a worthwhile case of study.

Previous studies on the effect of Covid-19 on firm performance such as Geraldine, Anthony and Joan (2022); Ozigi (2022); Iyke-Ofoedu, Joanes and Chinedu (2022); Ezekiel and Obafemi (2022); Akinyode and Asani (2022); Faboyede (2022); Alexander, Bertrand, Zoe and Stanton (2020); Shen, Fu, Pan, Yu and Chen (2020); Ozili (2020); Fu and Shen (2020); Abedalqader, Al-Haddad, Sial, Zheng and Cherian (2020); Asma, Wahab, Hamid, and Hasanat (2020); Edgar (2020); GAIN (2020); Aifuwa, Musa and Aifuwa (2020); Emejulu, Agbasi and Nosike (2020); Osita, Maduka and Onuzulike (2020); Gabriel, Keremah, Okpara and Mills (2020); Obioma, Reuben and Elekwachi (2020); Bashir and Oladeji (2020); Aifuwa and Saidu (2020). To the best knowledge of the researcher, no empirical research has determined how Covid-19 pandemic affects the profit level and cost level of publicly-owned companies in Anambra state. More importantly, researchers have not determined whether the performance of companies before Covid-19 lockdown is different from the performance of such firms after the lockdown. In order to address this gap in knowledge,

the present study examines the statistical effect of COVID-19 pandemic outbreak on the financial performance of public companies in Anambra state. The specific objectives of the study are:

1. To determine the effect of COVID-19 business disruption on the profit level of public companies in Anambra state.
2. To examine the extent to which COVID-19 lockdown affects the cost level of public companies in Anambra state.
3. To ascertain whether there is a significant difference in the profit levels of public companies in Anambra state before and after COVID-19 lockdown.

Review of Related Literature

Conceptual Issues

Coronavirus Pandemic

Coronavirus which is also known as Covid-19, refers to a new strain in the family of coronavirus that has not been seen before. The virus was first observed in Wuhan city in Hubei province of China. The virus started in late 2019, when it was first termed '2019 novel coronavirus' or '2019-nCoV.' According to Obioma, Reuben and Elekwachi (2020), Covid-19 is a potentially single-stranded enveloped virus that has an RNA that measures about 26 to 32kb. In so far as the strand of the virus can infect humans, it is said to be zoonotic, with bats being a primary reservoir for most of them. The incidences of three coronavirus outbreaks have been experienced and witnessed in the 21st century. There was an outbreak of Severe Acute Respiratory Syndrome coronavirus (SARS-COV) in 2003 which in torto resulted in 8096 cases globally with only 774 deaths. More so, Middle East Respiratory Syndrome Coronavirus (MERS-COV) broke out and resulted in 2500 cases with only 860 deaths.

It is against the background above that one can clearly see that the emergence of Covid-19 remains a Public Health concern that requires some pivotal intervention strategies that are both sustainable and dependable. The novel coronavirus has proven to have series of scathing global socioeconomic consequences both in the short and in the long run especially in countries where the pandemonium has continued to run its full cause seamlessly without much hindrances. Following the outbreak of Covid-19 in China, the deadly virus has recorded new epicenters for its outbreak most especially in the United States of America, Spain, Italy, France and Germany that have confirmed cases of over half a million. This dreaded virus has posed a significant risk on public health which pushed the World Health Organization (WHO) to declare it as a global pandemic. WHO called for health sectors of the world and government to take the ravaging virus seriously (McKibbin& Fernando, 2020) even as the spread of the infectious disease was still on the rise regardless various efforts different nations have committed to see that the novel virus is contained, efforts such as isolation, hand washing, authorization of the use Hydrochloroquine and other drugs which have not been clinically tested (Aifuwa, Musa & Aifuwa, 2020). PwC (2020), in their survey, reported that no economy of the world would be left spared from the fall-out from the Covid-19 business disruption. Ever since the novel corona virus was identified in Wuhan China, it has continued to sweet across America, Europe and even Africa where it has altogether triggered immense havoc to both the lives and the economy of the affected nations. It was as a response on how to contain the spread of the virus that restrictions were placed on movement and gathering of many people. The socio-economic impacts of the virus range from loss of human lives, income and livelihood.

Financial Performance

Performance of a firm is the degree to which a firm carries-out its activities in order to realize the goals and objectives of the firm. Financial performance is a subjective measure of how a company or a business

organisation effectively and efficiently utilises its assets and other resources to generate more resources. It is often exhibited by the accomplishment of tasks by the firm and its employees. The performance of firms also entails the quality of the completed tasks at the end of a specific business period which is measured against predetermined aims or targets or aims. All the same, financial performance is best defined with terms that are hinged on the economic view of profit maximization of the firm (Nworie & Mba, 2022). Furthermore, the best definition of financial performance ought to capture the view of stakeholders that corporate entities should satisfy the need of a group or individuals who are affected by the activities of the same enterprise (Aifuwa, 2020).

Financial performance, as a concept, can be seen via various perspectives. Some measure corporate performance with the use of quantitative indicators such as profitability ratios, return on equity, return on assets, earnings per share, etc. On the other hand, there are a bunch of others who view and measure corporate performance with qualitative indicators. In their own perspectives, corporate performance is best explained as the consequence of firm employees putting in their best to ensure that the aims and objectives of the firm are achieved. This class of people measure corporate performance with the aid of qualitative indicators such as employee performance, competitive advantage, customer satisfaction, etc. (Emejulu, Agbasi & Nosike, 2020). Financial performance is the measurement of the extent to which a firm's revenue exceed its expenses incurred (Nworie, Moedu & Onyali, 2023). It is the ultimate output of a company (Nworie & Ofoje, 2022). It is defined as an indicator of the firm's profitability in managing its assets. The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. It has also been the primary concern of business practitioners in all types of organizations since financial performance has implications to organization's health and ultimately its survival.

Measurement of financial performance depicts how better off a shareholder has become on the investment in an entity over a given period. Therefore, all profit-oriented organizations are striving towards achieving greater financial performance that will maximize shareholders' wealth and value of the firm in which public companies are not an exception. Financial performance analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business. Thus, the present study uses qualitative measures to proxy financial performance, viz. profit level and cost level. Profit levels refers to the different profit ranges which a firm makes across series of periods while cost level means the ranges of expenditure that are incurred by firms in their operational, financing and investing activities.

Theoretical Framework

Situational Attribution Theory

Situational attribution theory as was propounded by Coombs and Holladay (1996) posits that individuals or groups base their actions on their judgment and interpretation of causes or events that are external to them. The theory is of the view that human decisions and behaviours can be explained using the contextual position of the individual or group. This theory basically offers a framework and foundation for this study especially in the area of how best companies should develop strategic responses towards addressing the effect of Covid-19 crisis on firm performance. Furthermore, situational attribution theory stresses the need that corporate responses in times of crisis such as Covid-19 pandemic should be tailored to incorporate the nature and the distinct attributes of the enterprise in question.

Therefore, an effective response strategy in times of corporate crisis basically focuses on the identification of the distinctive characteristics of the firm. The response strategy would also build on the strength and competencies of the firm after which the best strategies and responses that incorporate the distinct features of the firm are thereafter developed (Gabriel, Keremah, Okpara & Mills, 2020). According to the situational

attribution theory, firms are better disposed to addressing their crisis situation when they have a clear and deep understanding of how such crisis will affect or have affected their firm specifically and so will be able to more easily meet up with the requirements and the needed response design. In the views of Gabriel, Keremah, Okpara and Mills (2020), this method ensures that strategic responses are tailored towards protecting the weak components and functions of the firm.

Situational attribution theory is flexibly used to explain not only individual choices and decisions but also group behaviour. In applying it in this study, one may argue that decisions of organizations and their choice of methods in dealing with the COVID-19 pandemic should be such that emanates from an understanding of their own context. Thus, companies in Anambra in combatting the effects of Covid-19 on their performance ought to choose a crisis response strategy against the pandemic and the strategy should not emanate from borrowed models, instead, it should be peculiar solutions or approaches that are based on the experiences and shared interpretations of the members of the company. Therefore, situational attribution theory is relevant to the present study and so forms the theoretical underpinning of the study.

Empirical Review

The study carried out by Geraldine, Anthony and Joan (2022) to examine the implication of Covid-19 pandemic on the sustainability of small and micro entrepreneur business in Anambra State found that Covid-19 exerted significant negative effect on small and medium scale entrepreneurs in the informal sector and that small and medium scale businesses are vulnerable and prone to risk. Similarly, the study by Ozigi (2022) which examined the effect of COVID-19 pandemic on the performance of Micro, Small and Medium-Scale Enterprises performance in FCT, Abuja, found that social distancing has significant positive effect on MSMEs performance. Furthermore, Iyke-Ofoedu, Joanes and Chinedu (2022) examined the impact of covid-19 pandemic on corporate performance of manufacturing companies in Nigeria and found that the covid-19 work-from-home has negative and significant impact on corporate innovativeness in manufacturing companies in Nigeria.

The empirical analysis of Ezekiel and Obafemi (2022) was to assess the spillover of COVID-19 on the performance of deposit money banks in Nigeria. The study realised that return on equity exerts positive significant impact on the performance of deposit money banks before the pandemic and during the pandemic that return on equity affects return on assets negatively and significantly. Akinyode and Asani (2022) in assessing the effects COVID-19 lockdown on the socio-economic life of residents of Oyo state in Nigeria revealed that the economic life, religious life, business and movement of people were negatively affected by Covid-19 lockdown. This corroborated the study by Faboyede (2022) which investigated the effects of the COVID-19 lockdown on small business owners in Akoko South West Local Government Area of Ondo State, Nigeria. The result indicated Covid-19 lockdown has a negative effect on Small and Medium Enterprises (SMEs) operators in Akoko South West Local Government Area of Ondo State, Nigeria.

Other studies reviewed include: Dane, Akyuz and Opusunju (2021); Alexander, Bertrand, Zoe and Stanton (2020); Shen, Fu, Pan, Yu and Chen (2020); Fu and Shen (2020); Abedalqader, Al-Haddad, Sial, Zheng and Cherian (2020); Asma, Wahab, Hamid, and Hasanat (2020); Edgar (2020); GAIN (2020); Aifuwa, Musa and Aifuwa (2020); Emejulu, Agbasi and Nosike (2020); Osita, Maduka and Onuzulike (2020); Gabriel, Keremah, Okpara and Mills (2020); Obioma, Reuben and Elekwachi (2020); Bashir and Oladeji (2020); Aifuwa and Saidu (2020).

Methodology

The present study empirically examines the effect of COVID-19 pandemic outbreak on the financial performance of public companies in Anambra state using a descriptive survey research design. The choice

of this design is deemed appropriate because the study intends to collate the opinions of the respondents on the subject matter of the research. The questionnaire instrument was administered on a population target of all accounting academics, managers of public companies and accountants in public companies in Anambra state. A sample of 117 respondents filled and submitted the questionnaire. The questionnaire was constructed in line with the likert-scale system to enable the researcher arrange the responses in an ordered format for easier analysis. The descriptive statistical analysis of the study was carried-out with the use of mean and standard deviation. Simple regression technique was deployed in testing hypotheses 1 and 2 of the study while Paired Sample T-test was used to test the third hypothesis of the study, both at 5% level of significance.

Data Analysis and Discussions

Analysis of Mean Scores for the Variables

The questionnaire items that measured the variables of study are analysed in **Tables 4.6, 4.7, 4.8 and 4.9**. Key: SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree.

Table 1 Mean Scores Measuring the Effect of COVID-19 Business Disruption on Profit

S/N	Statements About the Research Variable	SA	A	N	D	SD	Mean	Remark
1	Covid-19 business disruption brought about sharp decline in sales which ultimately has continued to result in insufficient cash flow in our company	34	44	0	22	7	3.58	Accept
2	The business disruptions caused by Covid-19 reduced the profit levels of our firm greatly	25	77	5	3	7	3.94	Accept
3	The ravages of Covid-19 pandemic thwarted vital business operations such that we cut down our scale of production	26	66	5	14	6	3.79	Accept
4	Covid-19 business disruption negatively impaired the supply chain of our firm	105	2	3	1	6	4.70	Accept

Source: Survey Findings, 2022

Table 1 above presents the mean scores of the construct that measured the effect of COVID-19 Business Disruption on Profit. A mean score of 3.00 and above means that the item or the statement in the questionnaire is, on average, accepted. According to the table, more number of the respondents agreed to each of the items as shown by the mean score of the responses above.

Table 2 Mean Scores Measuring the Effect of COVID-19 Lockdown on Cost Level

S/N	Statements About the Research Variable	SA	A	N	D	SD	Mean	Remark
5	The cost per unit of products and services offered by our company was severely increased by the harsh economic effect of Covid-19	14	81	5	11	6	3.74	Accept
6	Our company used a greater amount of the revenue generated to offset running and operating costs of operation during Covid-19 lockdown	63	32	0	22	0	4.16	Accept
7	Covid-19 lockdown slowed down economic activities which then increased general cost of production	19	70	8	6	14	3.90	Accept

8	Covid-19 lockdown made it more difficult for our company to efficiently and economically plan approaches to expenditure	69	28	0	20	0	4.25	Accept
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Source: Survey Findings, 2022

Table 2 above presents the mean scores of the construct that measured the effect of COVID-19 Lockdown on Cost Level. According to the table, all the items or the statements that are used to measure the effect of COVID-19 Lockdown on Cost Level were accepted since each of the mean scores are greater than 3.00.

Table 3 Mean Scores Measuring Profitability Performance Before Covid-19 Lockdown

S/N	Statements About the Research Variable	SA	A	N	D	SD	Mean	Remark
9	Our company effectively and efficiently secures its long-term success through profit maximization	7	65	3	38	4	3.28	Accept
10	The high profit levels continuously realized by our firm is as a result of managerial efficiency in our firm	6	57	5	44	5	3.13	Accept
11	Our firm's profit level allows us to often engage in repayment of outstanding debt and interest charge thereon, as and when due	10	62	5	39	1	3.35	Accept
12	As a well-performing company, our company optimally uses available resources to create more value for shareholders	103	2	3	3	6	4.65	Accept

Source: Survey Findings, 2022

Table 3 above presents the mean scores of the construct that measured the Profitability Performance Before Covid-19 Lockdown. According to the table, all the statements that were made to measure Profitability Performance Before Covid-19 Lockdown were accepted since they met the criteria of 3.00 mean score.

Table 4 Mean Scores Measuring Profitability Performance After Covid-19 Lockdown

S/N	Statements About the Research Variable	SA	A	N	D	SD	Mean	Remark
13	Coronavirus (Covid-19) pandemic made it increasingly more difficult for our company to maintain adequate financial performance levels	15	27	0	75	0	2.85	Reject
14	Our firm finds it difficult to realize secure a long-term success through managerial efficiency, during Covid-19 lockdown	0	18	9	76	14	2.26	Reject
15	Our company's low profit level does not allows us to easily repay outstanding debt and interest charge thereon, as and when due	22	44	1	45	5	3.28	Accept
16	Covid-19 lockdown thwarts our company's capacity to optimally uses available resources in creating more value for shareholders	64	2	3	38	10	3.62	Accept

Source: Survey Findings, 2022

Table 4 above presents the mean scores of the construct that measured the Profitability Performance After Covid-19 Lockdown. According to the table, all the statements that were made to measure the Profitability

Performance After Covid-19 Lockdown were accepted since they met the criteria of 3.00 mean score, except Questionnaire Items 13 and 14 that have mean scores of 2.85 and 2.26, respectively.

Test of Hypothesis

From Tables 1, 2, 3 and 4 which indicate the mean score analysis of the research variables of the study, the data for the test of hypotheses were analysed using simple regression technique.

Test of Hypothesis I

The hypothesis to be tested is hereby re-stated below.

H_{01} : COVID-19 business disruption does not significantly affect the profit level of public companies in Anambra state.

The test of the hypothesis has the following outputs.

Table 5 Regression Result for Hypothesis I – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.351 ^a	.123	.115	.68586

a. Predictors: (Constant), COVID-19 Business Disruption and Profit Level

Source: Survey Findings, 2022

Table 6 Regression Result for Hypothesis I – ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.591	1	7.591	16.137	.000 ^b
	Residual	54.096	115	.470		
	Total	61.687	116			

a. Dependent Variable: Profitability Performance After Covid-19 Lockdown
b. Predictors: (Constant), COVID-19 Business Disruption and Profit Level

Source: Survey Findings, 2022

Table 7 Regression Result for Hypothesis I – Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.394	.405		3.441	.001
	COVID-19 Business Disruption and Profit Level	-.402	.100	-.351	-4.017	.000

a. Dependent Variable: Profitability Performance After Covid-19 Lockdown

Source: Survey Findings, 2022

Interpretation of Result

The result shown in **Table 5** above is the result of the test that determines whether COVID-19 business

disruption significantly affects the profit level of public companies. The negative coefficient of correlation, $r = -0.351$, reveals that there is a weak and negative association between COVID-19 business disruption and financial profitability of public companies in Anambra state. The coefficient of determination, $r^2 = 0.123$, indicates that about 12.3% variations in financial profitability of the firms are significantly explained by changes caused by COVID-19 business disruption. Furthermore, **Table 6** shows the analysis of variance that was used to test the significance of the regression model using the F -statistic. According to the table, the regression model is significant in predicting how COVID-19 business disruption affects financial profitability levels of public firms ($F [1, 116] = 16.137, p\text{-value} = 0.000$). **Table 7** shows the coefficients of the tests, such that the standardized coefficient of the independent variable, COVID-19 business disruption, is -0.351 . This implies that a marginal increase in COVID-19 business disruption will further reduce the profitability performance of the firms by 0.351 .

Decision

The p -value of the test is less than 0.05 . In line with the decision rule guiding the hypothesis testing, this led to the rejection of the null hypothesis while the alternative hypothesis was accepted. In view of this, it is concluded that COVID-19 business disruption significantly and negatively affects the profit level of public companies in Anambra state ($F [1, 116] = 16.137, p\text{-value} = 0.000$).

Test of Hypothesis II

The hypothesis to be tested is hereby re-stated below.

H_{02} : COVID-19 lockdown has no significant effect on the cost level of public companies in Anambra state.

The test of the hypothesis has the following outputs.

Table 8 Regression Result for Hypothesis II – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.492 _a	.242	.236	.63747

a. Predictors: (Constant), COVID-19 Lockdown on Cost Level

Source: Survey Findings, 2022

Table 9 Regression Result for Hypothesis II – ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.955	1	14.955	36.802	.000 ^b
	Residual	46.732	115	.406		
	Total	61.687	116			

a. Dependent Variable: Cost level
b. Predictors: (Constant), COVID-19 Lockdown on Cost Level

Source: Survey Findings, 2022

Table 10 Regression Result for Hypothesis II – Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			

1	(Constant)	1.015	.333		3.050	.003
	COVID-19 Lockdown on Cost Level	.495	.082	.492	6.066	.000
a. Dependent Variable: Cost level						

Source: Survey Findings, 2022

Interpretation of Result

The result shown in **Table 8** above is the result of the test that determines whether COVID-19 Lockdown significantly affects the cost level of public companies. The positive coefficient of correlation, $r = 0.492$, reveals that there is a moderate and positive association between COVID-19 Lockdown and cost level of public companies in Anambra state. The coefficient of determination, $r^2 = 0.242$, indicates that about 24.2% variations in cost level of the firms are significantly explained by changes caused by COVID-19 Lockdown. Furthermore, **Table 9** shows the analysis of variance that was used to test the significance of the regression model using the *F*-statistic. According to the table, the regression model is significant in predicting how COVID-19 Lockdown affects cost levels of public firms ($F [1, 116] = 36.802, p\text{-value} = 0.000$). **Table 10** shows the coefficients of the tests, such that the standardized coefficient of the independent variable, COVID-19 Lockdown, is 0.492. This implies that a marginal increase in COVID-19 Lockdown will further increase the cost level of the firms by 0.492.

Decision

The *p*-value of the test is less than 0.05. In line with the decision rule guiding the hypothesis testing, this led to the rejection of the null hypothesis while the alternative hypothesis was accepted. In view of this, it is concluded that COVID-19 lockdown has a significant and positive effect on the cost level of public companies in Anambra state ($F [1, 116] = 36.802, p\text{-value} = 0.000$).

Test of Hypothesis III

The hypothesis to be tested is hereby re-stated below.

H_{03} : There is no significant difference in the profit levels of public companies in Anambra state before and after COVID-19 lockdown.

The test of the hypothesis has the following outputs.

Table 11 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Profitability Performance Before Covid-19 Lockdown	3.6026	117	.68477	.06331
	Profitability Performance After Covid-19 Lockdown	3.0021	117	.72924	.06742

Source: Survey Findings, 2022

Table 12 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Profitability Performance Before Covid-19 Lockdown & Profitability Performance After Covid-19 Lockdown	117	-.339	.000

Source: Survey Findings, 2022

Table 13 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Profitability Performance Before Covid-19 Lockdown – Profitability Performance After Covid-19 Lockdown	.60043	1.15737	.10700	.38850	.81235	5.612	116	.000

Source: Survey Findings, 2022

Interpretation of Result

The result shown in **Table 11** above is the result of the test that determines if there is any difference in the profit levels of public companies in Anambra state before and after COVID-19 lockdown. The table revealed that on average, the profitability performance of public companies before and after COVID-19 lockdown are 3.6026 and 3.00, respectively. Furthermore, **Table 12** shows the correlation coefficient between the profitability performance of the public companies in Anambra state before and after COVID-19 lockdown. According to the table, the correlation coefficient of $r = -0.339$ indicates that there is a negative and significant association between the profit levels of public companies in Anambra state before and after COVID-19 lockdown.

Table 13 shows the paired sampled test that determines whether the observed difference in the profit levels of public companies in Anambra state before and after COVID-19 lockdown is statistically significant. According to the table, the mean difference between the two profitability performances is 0.60043, with a *p-value* of 0.000. Thus, at a 95% confidence interval, an evidence exists that the profitability performance of public companies before Covid-19 lockdown significantly differs from the profitability performance of the public companies after Covid-19 lockdown.

Decision

The *p-value* of the test is less than 0.05. In line with the decision rule guiding the hypothesis testing, this led to the rejection of the null hypothesis while the alternative hypothesis was accepted. In view of this, it is concluded that there is a significant difference in the profit levels of public companies in Anambra state before and after COVID-19 lockdown ($t [1, 116] = 5.612, p\text{-value} = 0.000$).

Discussion of Findings

COVID-19 business disruption was revealed to have a negative and significant effect on performance of public companies in Anambra. The *t*-statistic indicated that when COVID-19 disrupts business operations, there will be a 0.351 decrease in the chances that there will be an improvement in the financial performance

of the firm ($t = -4.017$, p -value < 0.05). To further support this position statistically, the r^2 value of 0.123 indicates that about 12.3% variations in financial performance of public firms can be explained by movement in COVID-19 business disruption. That is to say that there is a statistical evidence that supports the assumption that COVID-19 business disruption brings about lower chances for improved financial performance. This finding corroborates the results found by Aifuwa, Musa and Aifuwa (2020); Alexander, Bertrand, Zoe and Stanton (2020).

COVID-19 lockdown was revealed to have a positive and significant effect on cost level of public firms in Anambra state. The t-statistic indicated that when there is COVID-19 lockdown, there will be a 0.492 increase in the cost of production and operation which ultimately reduces profitability of firms ($t = 6.066$, p -value < 0.05). To further support this position statistically, the r^2 value of 0.242 indicates that about 24.2% variations in cost level of public firms can be explained by movement in COVID-19 lockdown. That is to say that there is a statistical evidence that supports the assumption that COVID-19 lockdown brings about increases in cost incurred in the business. This finding agrees with the findings of Osita, Maduka and Onuzulike (2020); Fu and Shen (2020).

Finally, results indicated that there is a difference in the profit levels of public companies in Anambra state before and after COVID-19 lockdown. The profitability performance of public companies before and after COVID-19 lockdown are 3.6026 and 3.00, respectively. The correlation coefficient between the profitability performance of the public companies in Anambra state before and after COVID-19 lockdown is negative. That is to say that the profitability performance of the firms before COVID-19 lockdown worsened after the COVID-19 lockdown. The mean difference between the two profitability performances is 0.60043, with a p -value of 0.000. Thus, at a 95% confidence interval, it is shown that the profitability performance of public companies before Covid-19 lockdown significantly differs from the profitability performance of the public companies after Covid-19 lockdown. This finding is in line with those of Aifuwa, Musa and Aifuwa (2020); Alexander, Bertrand, Zoe and Stanton (2020); Osita, Maduka and Onuzulike (2020); Fu and Shen (2020).

Conclusion and Recommendations

The reality of the novel Coronavirus (COVID-19) pandemic has been faced by every sector in the whole world. The outbreak tremendously brought about a huge economic loss for thousands of businesses across the globe, and Nigeria in particular. The upsurge of Covid-19 hit the Nigerian economy very hard as there were restriction on transportation of people and goods, significant disruption of outputs and exports, hindrance to the growth of the business by undercuts, loss of customers' patronage, etc. Some of the stock of inventory that were not able to be sold during the lockdown had become obsolete and lead to a loss in economic value. In the light of such government lockdown and a halt of business activities, companies in Anambra have been negatively affected by a sharp decline in sales which ultimately has continued to result in insufficient cash flow in carrying out various operations, financing and investing activities. The lockdown occasioned by Covid-19 pandemic resulted in a weakened spending power and a stagnant economy that jointly brought world economy to its knees and crumbled various businesses more than ever. The evidence revealed in the study shows that COVID-19 pandemic did more harm to public firms than good. In line with the findings of this study, the following recommendations were made.

1. Public firms should focus on building robust and yet flexible operational processes that is capable of adjusting to changes in situation such as Covid-19 pandemic.
2. Investors should correctly view the fluctuation of returns during the COVID-19 pandemic and accordingly control the risks associated with their financial assets.
3. Managers should pay more attention to the impact of COVID-19 on public companies and take countermeasures in order to mitigate the effects on the industry.

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