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Impact of covid-19 pandemic on corporate performance of manufacturing companies in Nigeria

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Article Info

Abstract

The study was conducted to examine the impact of covid-19 pandemic on corporate performance of manufacturing companies in Nigeria. Specifically this study aims to: (i) ascertain the impact of covid-19 work-from-home on corporate innovativeness in manufacturing companies in Nigeria and (ii) evaluate the impact of covid-19 employee layoff on corporate competitive advantage in manufacturing companies in Nigeria. The study made use of descriptive survey design. Structured questionnaire was used to collect data. Study Area was Anambra State. The population of study comprises the staffs of manufacturing companies in Anambra State. The selected manufacturing companies in Nexans Kabelmetal Nigeria Plc, Nigerian Bottling Company, Onitsha Plant, and Sylflora Industries Ltd. The sample size of 364 respondents was drawn from population of the study which consists of 4,125 employee's manufacturing companies in Anambra State. Research questions were answered using frequency, mean and standard deviation. The hypotheses stated were tested using single regression. Empirical results of the study show that the covid-19 work-from-home has negative and significant impact on corporate innovativeness in manufacturing companies in Nigeria since Covid-19 work-from-home results to poor work output due disturbances from family members thereby declines corporate innovativeness (t – statistics (42.719) > its critical values (0.000), study revealed that the covid-19 employee layoff has negative and significant impact on corporate competitive advantage in manufacturing companies in Nigeria since Covid-19 employee layoff reduces the number of trained staff that is capable of increasing performance thereby declines corporate competitive advantage (t – statistics (49.424) > its critical values (0.000). The study concludes that covid-19 pandemic has negative and significant impact on corporate performance in manufacturing companies in Nigeria. The study recommends that management of manufacturing companies in Nigeria should provide alternative office accommodation apart from home and necessary communication media to pass information to office members in order to encourage social distancing in production hall.

Keywords: Covid-19, Corporate Performance and Manufacturing Company

Introduction

The entire world has witnessed sudden arrival of dreadful ailments at the end of 2019 that caused paralysis of the global economy. The disease outbreak is known as coronavirus. Coronavirus is one of the key disease causing organisms that attacks the human respirational organs. Because this outbreak occurred in 2019, it is often referred to as coronavirus disease 19 (Covid-19). The Covid-19 case for the first occurred in Wuhan, Hubei province, China in December 2019. There were five patients treated at Jinyinta Hospital, Wuhan who were initially suspected of pneumonia with Acute Respiratory Syndrome (ARS) (Sorasak, 2020) [14].

After a careful diagnosis, it showed that there was a new coronavirus named 2019 novel coronavirus (2019-nCoV). In a short time, this virus spread to other provinces in China, Thailand, Japan and Korea (Robert, 2020) [11].

The COVID-19 pandemic has affected manufacturing industry so deeply. It follows after other key disturbance such as the 2008-2009 financial crisis. It takes several years to move from pre-crisis levels. The COVID-19 pandemic differs in characteristics from the previous ones (such as financial crisis). Production levels before COVID-19 had already cooled down and companies have not fully recovered financial crisis and achieve strong growth as before the COVID-19 pandemic (Rayees & Almaas, 2021) [10].

Based on this incident, the WHO World Health Organization on February 11, 2020 officially announced the official name of the outbreak, which from 2019-nCoV became COVID-19 (WHO, 2020). COVID-19 can be transmitted from human to human and in general, respiratory viral infections can occur through: (1) contact (direct or indirect), (2) short-distance transmission (droplet) spray (droplet) and, (3) aerosols in transmission long distance (Moriyama, Hugentobler, & Iwasaki, 2020) [8]. The newly discovered COVID-19 caused the Coronavirus or the Coronavirus disease bearing the symptoms of fever, dry cough, tiredness, aches and pains, sore throat and shortness of breath (World Health Organization, 2020) [21]. This disease has spread to more than 180 countries, so WHO officially announced that COVIC-19 is a pandemic (WHO, 2020). As of June 2, 2020, there have been 6,194,533 confirmed positive cases of COVID-19 and 376,320 deaths from COVID-19 worldwide. Meanwhile, in Southeast Asia 283,845 confirmed cases of COVID-19 and 8,000 deaths due to COVID-19. In Nigeria, the case of the Covid-19 outbreak was first announced by Director General Centre for Disease Control with a positive case that befell 2 people on March 2, 2020. The first case announced was greeted by the capital market with negative effects. The effects of the Covid-19 pandemic have occurred in almost all world exchanges, so that many stock prices have fallen (He, Sun, Zhang, & Li, 2020; Singh, Dhall, Narang, & Rawat, 2020; Shahabi, Azar, Faezy Razi, & Fallah Shams, 2020; Anh & Gan, 2020) [4, 13, 12, 1].

Manufacturing industry has been a backbone of society, which gave its members a sense of purpose, cohesiveness, concept of progress, satisfaction of finished product, prosperity, and social stature. It was not only the source of livelihood but also a microecosystem for many, which nurtured its members and their families. It gave the members a sense of involvement and belonging (Srivastava, 2009) [15]. However, the currently imposed shutdown, which is deemed necessary to curb the spread of COVID-19 pandemic, has significantly and adversely affected all industrial sectors. The economic disruption caused by the COVID-19 pandemic could impact straight away the chain of demand and supply, which implies fewer consumers, goods, and services in the global economy. Most importantly, industries that may see the direct impacts are the service industries of hospitality, travel and tourism, entertainment, etc., which are immediately affected by travel shutdown. This might provide a slight indirect benefit to some sectors such as ecommerce, food retail, healthcare industry, (Oberoi, 2020) [9]. In consumer goods, the steep drop in consumer demand is likely to persist. This has implications for the many consumer companies (and their suppliers) that operate on thin working-capital margins. A global slowdown would affect small- and mid-size companies more acutely, and less developed economies would possibly be more impacted than advanced economies.

Statement of the Problem
There are many infectious diseases in the history of the world, but the COVID-19 has proven to be highly infectious, viral and contagious. The effect of this infection on human life is highly unprecedented. This has led to many operators of manufacturing company, banking sector and communication sector to close down business operation, maintain social distancing, and also total compliance to lockdown directives by the Federal Government of Nigeria. In addition, the containment measures such as; total lock down, restrictions on movement affected production level, reduced sales, reduced revenue, caused cash trap, hunger, illness, death, unemployment, poverty among others. These challenges may have hampered the performance of productive sectors in the world at large and specifically on manufacturing sector's performance in Nigeria since prevalence of COVID-19 pandemic. There might also be losses from open derivative positions that have moved in unexpected directions due to the crisis.

The current crisis has affected all the components of industrial system, from the input or procurement of raw material, process of manufacture, and output or production. The procurement process has significantly been impaired by shutting down of processes dealing with raw materials/making component parts, sourcing of, lack of adequate transportation service, etc., The process of manufacture cannot be imagined without workforce, most of whom are in lockdown and some in quarantine or even ill. Even automated processes require workforce for monitoring and quality control, etc. It is against this background that this study seeks to examine the impact of COVID-19 on the corporate performance of manufacturing companies in Nigeria.

Objectives of the Study
The broad objective of this study is to examine the impact of covid-19 on corporate performance of manufacturing companies in Nigeria. The specific objectives are to:
1. Ascertain the impact of covid-19 work-from-home on corporate innovativeness in manufacturing companies in Nigeria.
2. Evaluate the impact of covid-19 employee layoff on corporate competitive advantage in manufacturing companies in Nigeria.

Conceptual Literature
COVID-19
Coronavirus disease 2019 (COVID-19) is defined as illness caused by a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. It was initially reported to the WHO on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency. On March 11, 2020, the WHO declared COVID-19 a global pandemic, its first such designation since declaring H1N1 influenza a pandemic in 2009 (WHO, 2020).

Corporate Performance

Corporate performance is a composite assessment of how well an organization executes on its most important parameters, typically financial, market and shareholder performance. Corporate performance analysis is a subset of business analytics/business intelligence (BA/BI) that is concerned with the "health" of the organization, which has traditionally been measured in terms of financial performance (Metzger, 2019) [7].

However, in recent years, the concept of corporate health has become broader. Like the concept of business sustainability, corporate health is now considered to involve not only financial considerations but also other factors including social responsibility and reputation, innovation, employee morale and productivity. As such, performance is no longer measured only on key performance indicators (KPI) such as revenue, return on investment (ROI), overhead and operational costs (Folan & Browne, 2020) [2].

Contextual Literature
Covid-19 Work from Home

Work from Home (WFH), is currently known as an alternative working to minimize the risk of COVID-19 infection. However, WFH is not new and has been brought to the attention of several schools of thought for many years. The WFH concept was initially mentioned by Nilles (1988) dating back to 1973, known as "telecommuting" or "telework" (Lina Vyas & Nantapong Butakhieo (2021) [6]. WFH has been defined in various terms over the four decades, namely remote work, flexible workplace, telework, telecommuting, e–working. These terms refer to the ability of employees to work in flexible workplaces, especially at home, by using technology execute work duties (Gajendran and Harrison 2007) [3]. Gajendran and Harrison (2007) [3] described telecommuting as "an alternative work arrangement in which employees perform tasks elsewhere that are normally done in primary or central workplaces, for at least some portion of their work schedule, using electronic media to interact with others inside and outside the organization," notably, they indicated that "elsewhere" refers to "home".

Covid-19 induced-layoff or Employee Layoff

Covid-19-induced-layoff or employee layoff is a term use to describe employee layoff during covid-19 lockdown and execution of social distancing. Many companies from different part the world could not continue to pay staff in absent of no productive activities and organizational earnings.

World Travel and Tourism Council has estimated that nearly 50 million jobs worldwide in the hospitality industry are highly threatened by COVID-19. COVID- 19-induced layoff (hereafter referred to as COV-layoff) has become a serious socio-economic problem that influences employee well-being and organization survival (Yidong, Diwan, Hai-Jiang, 2021) [22].

Empirical Review

Sumit, Max and Yue (2020) [16] conducted a study on home sweet home; working from home and employee performance during the COVID-19 pandemic in the UK. Specifically this study examines working from home and employee performance during the COVID-19 pandemic in the UK in 2020. Data was analysed using content analysis method (for qualitative data) and descriptive statistics method (for quantitative data). The finding show that increases in WFH frequency are associated with a higher self-perceived productivity per hour and an increase in weekly working hours among the employed. The WFH-productivity relationship is stronger for employees residing in regions worse acted by the pandemic and those who previously commuted longer distances, while it is weaker for mothers with childcare responsibilities.

Robert, (2020) [11] conducted a study to examine the impact of COVID-19 on small business owners; evidence from the first 3 months after widespread social-distancing restrictions. Mainly the objective of this study is to provides the first analysis of impacts of the pandemic on the number of active small businesses in the United States using nationally representative data from the April 2020 Current Population Survey—the first month fully capturing early effects. The findings show the number of active business owners in the United States plummeted by 3.3 million or 22% over the crucial 2-month window from February to April 2020. The drop in active business owners was the largest on record, and losses to business activity were felt across nearly all industries. African-American businesses were hit especially hard experiencing a 41% drop in business activity. Latinx business owner activity fell by 32%, and Asian business owner activity dropped by 26%. Simulations indicate that industry compositions partly placed these groups at a higher risk of business activity losses. Immigrant business owners experienced substantial losses in business activity of 36%. Female business owners were also disproportionately affected (25% drop in business activity). Continuing the analysis in May and June, the number of active business owners remained low-down by 15% and 8%, respectively. The continued losses in May and June, and partial rebounds from April were felt across all demographic groups and most industries. These findings of early-stage losses to small business activity have important implications for policy, income losses, and future economic inequality. The study recommends that government should give a maximum answer to whether the shutdowns of small businesses are temporary or permanent.

Kevin, et al (2020) [5] conducted a study to examine COVID-19 and the Workplace; implications, Issues, and Insights for Future Research and Action. Specifically the study focuses on: (i) emerging changes in work practices (e.g., working from home, virtual teams) and (ii) economic and social psychological impacts (e.g, unemployment, mental well-being). In addition, we examine the potential moderating factors of age, race and ethnicity, gender, family status, personality, and cultural differences to generate disparate effects. The finding provides an integrative approach for considering the implications of COVID-19 for work and organizations while also identifying issues for future research and insights to inform solutions. The study recommends that by organizing our experiences as researchers in a wide array of topical areas that COVID-19 for work and organizations will be minimal.

Methodology

The study made use of descriptive survey design. The study used structured questionnaire to obtain data. Study Area was Anambra State. The choice of location was based on proximity, effective coverage and cost minimization. The population of study comprises the staffs of manufacturing

companies in Anambra State. The selected manufacturing companies in Nexans Kabelmetal Nigeria Plc, Nigerian Bottling Company, Onitsha Plant, and Sylflora Industries Ltd. The sample size of 364 respondents was drawn from population of the study which consists of 4,125 employee's

manufacturing companies in Anambra State. Research questions were answered using frequency, mean and standard deviation. The hypotheses stated were tested using single regression.

Data Presentation and Analysis

Table 1: Comprehensive Demographic Distribution of Respondents

Title	Frequency	Percentage
Questionnaire Distribution		
Questionnaires Distributed	364	100%
Returned Questionnaires	358	96%
Not Returned Questionnaires	6	4%
Gender		
Female	213	59.5%
Male	145	40.5%
Age Bracket		
20-30 Years	153	42.7%
31-40 Years	111	31.0%
41-50 Years	66	18.4%
51 Years – above	28	7.8%
Marital Status		
Married	223	62.3%
Single	125	34.9%
Widow/widower	7	1.9%
Divorce	3	0.8%
Educational Qualification		
HND/B.sc	229	64.0%
MBA/M.sc	125	34.9%
Ph.D	4	01.2%
Working Experience		
1- 5 Years	111	31.0%
6-10 Years	153	42.7%
11-20 Years	66	18.4%
21 -35 Years	28	7.8%

Source: Field Survey, 2021

Three hundred and seventy-one (364) copies of questionnaire were designed and distributed to the respondents. Out of the 364 Questionnaires distributed, 358 (96%) were completed and returned while 6 (4%) were not returned. Therefore, 96 percent respondents were a good representation. The table showed the respondents profile in frequency and percentage distribution of gender, age bracket, marital status, educational

qualification, and working experience.

Data Analysis
Question One: What is the extent to which covid-19 work-from-home impacts on corporate innovativeness in manufacturing companies in Nigeria?.

Table 2: Mean rating of responses of respondents on the extent to which covid-19 work-from-home impacts on corporate innovativeness in manufacturing companies in Nigeria

S/N	Questionnaire Item	VGE(5)	GE(4)	M(3)	LE(2)	VLE(1)	Total	Mean	SD
1	Covid-19 work-from-home results to poor work output due disturbances from family members thereby declines corporate innovativeness.	630	632	192	20	6	1480	4.20	0.0030
		126	158	64	10	6	358		
		35%	44%	18%	5%	2%	100%		
2	Covid-19 work-from-home made bankers to work in poor working environment thereby declines corporate innovativeness.	580	632	222	14	9	1457	4.13	0.0029
		116	158	74	7	9	358		
		32%	44%	21%	3%	2%	100%		
3	Covid-19 work-from-home results to poor job satisfaction due reduced motivation technique for telecommuting thereby declines corporate innovativeness.	900	400	144	46	13	1503	4.18	0.0030
		180	100	48	23	13	358		
		50%	30%	13%	6%	1%	100%		
4.	Covid-19 work-from-home prevent employees from getting recognition and needed support thereby declines corporate innovativeness.	985	416	111	24	14	1550	4.31	0.0032
		197	104	37	12	14	358		
		55%	30%	10%	3%	2%	100%		
	Grand Mean							**4.205**	**0.0030**

Source: Field Survey, 2021

This table shows the opinion of respondents on what is the extent to which covid-19 work-from-home impacts on corporate innovativeness in manufacturing companies in Nigeria. The research items 1,2,3,4, have mean score of above 4.0 point respectively and it was rated great extent by respondents. The study revealed that covid-19 work-from-home has negatively significant impact on corporate

innovativeness in manufacturing companies in Nigeria since grand mean (4.176) is greater than cut-off mean (3.00).

Question Two: What is the extent at which covid-19 employee layoff impacts on corporate competitive advantage in manufacturing companies in Nigeria?

Table 3: Mean rating of responses of respondents on the extent at which covid-19 employee layoff impacts on corporate competitive advantage in manufacturing companies in Nigeria

S/N	Questionnaire Item	VHE(5)	HE(4)	M(3)	LE(2)	VLE(1)	Total	Mean	SD
1	Covid-19 employee layoff reduces the number of trained staff that is capable of increasing performance thereby declines corporate competitive advantage.	630	632	192	20	6	1480	4.06	0.0030
		126	158	64	10	6	358		
		35%	44%	18%	5%	2%	100%		
2	Covid-19 employee layoff reduces retention high caliber employee and increase employee turnover rate which thereby declines corporate competitive advantage.	900	400	144	46	13	1503	4.12	0.0030
		180	100	48	23	13	358		
		50%	30%	13%	6%	1%	100%		
3	Covid-19 employee layoff increases operating cost in paying downsize compensation packages to affected employee in redundancy thereby declines corporate competitive advantage.	950	444	105	32	12	1543	4.28	0.0032
		190	111	35	16	12	358		
		53%	31%	9%	3%	2%	100%		
4.	Covid-19 employee layoff increases losses of manufacturing' key account customers to other competitors thereby reduce corporate competitive advantage.	1000	404	135	18	9	1566	4.36	0.0033
		200	101	45	9	9	358		
		59%	28%	13%	2%	0.8%	100%		
	Grand Mean							**4.245**	**0.0031**

Source: Field Survey, 2021

This table shows that the respondents indicated their option on what is the extent at which covid-19 employee layoff impacts on corporate competitive advantage in manufacturing companies in Nigeria. The research items 1,2,3,4, have mean score of above 4.0 point respectively and it was rated great extent by respondents. The study revealed that covid-19 employee layoff has negatively significant impact on corporate competitive advantage in manufacturing

companies in Nigeria since grand mean (4.187) is greater than cut-off mean (3.00).

Test of Hypotheses
Test of Hypothesis One
H_1 Covid-19 work-from-home has no significant impact on corporate innovativeness in manufacturing companies in Nigeria

Table 4

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.836ᵃ	.876	.876	.52461

a. Predictors: (Constant), Covid-19 Work-from-home

ANOVAᵇ						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	502.242	1	502.242	1824.936	.000ᵃ
	Residual	71.004	258	.275		
	Total	573.246	259			

a. Predictors: (Constant), Covid-19 work-from-home
b. Dependent Variable: Corporate innovativeness

Coefficientsᵃ						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.269	0.067		3.994	0.000
	Covid-19 work-from-home	-1.159	0.027	0.936	-42.719	0.000

a. Dependent Variable: Corporate innovativeness

In testing this hypothesis, covid-19 work–from-home was regressed against corporate innovativeness. The result of the single-regression analysis summarized in table 4.3.3 shows the model to ascertain the impact of covid-19 work-from-home on corporate innovativeness in manufacturing

companies in Nigeria.

Corporate Innovativeness = 0.269 - 1.159 Covid-19 work-from-home
The empirical result shows that the coefficient of covid-19

work-from-home has negative influence on corporate innovativeness; it means that covid-19 work-from-home has negative and indirect influence on corporate innovativeness. The results of the t – statistics denotes that the coefficient of covid-19 work-from-home was statistically significance. This is because observed values of t – statistics (42.719) is greater than its critical values (0.000). The result of the F– statistical test shows that the overall regression of the hypothesis three was statistically significance. This is because observed value of the F – statistics (1824.936) was

greater than its critical value (0.000). Again, our empirical result shows that the Pearson product moment correlation analysis (r) was 0.836. The strength of relationship between the two variables was high. However, we reject the null hypothesis and accept alternative hypothesis.

Test of Hypothesis Two
H_2 Covid-19 employee layoff has no significant impact on corporate competitive advantage in manufacturing companies in Nigeria.

Table 5

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.751[a]	.904	.904	.46072
a. Predictors: (Constant), Covid-19 employee layoff				

ANOVA[b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	518.483	1	518.483	2442.689	.000[a]
	Residual	54.763	258	.212		
	Total	573.246	259			
a. Predictors: (Constant), Covid-19 employee layoff						
b. Dependent Variable: Corporate competitive advantage						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.093	0.052		1.790	.075
	Covid-19 employee layoff	-1.046	0.021	0.951	-49.424	.000
a. Dependent Variable: Corporate competitive advantage						

In testing this hypothesis, covid-19 employee layoff was regressed against corporate competitive advantage. The result of the single-regression analysis summarized in table 4.3.4 shows the model to evaluate the impact of covid-19 employee layoff on corporate competitive advantage in manufacturing companies in Nigeria.

Corporate competitive advantage = 0.093 - 1.046 Covid-19 employee layoff
The empirical result shows that the coefficient of covid-19 employee layoff has negative influence on corporate competitive advantage; it means that covid-19 employee layoff has negative and indirect influence on corporate competitive advantage. The results of the t – statistics denotes that the coefficient of covid-19 employee layoff was statistically significance. This is because observed values of t – statistics (49.424) is greater than its critical values (0.000). The result of the F– statistical test shows that the overall regression of the hypothesis four was statistically significance. This is because observed value of the F – statistics (2442.689) was great than its critical value (0.000). Again, our empirical result shows that the Pearson product moment correlation analysis (r) was 0.751. The strength of relationship between the two variables was high. However, we reject the null hypothesis and accept alternative hypothesis.

Summary of the Findings
The following are the major findings of the study
1. The finding of the study revealed that the covid-19 work-

from-home has negative and significant impact on corporate innovativeness in banking sector, since Covid-19 work-from-home results to poor work output due disturbances from family members thereby declines corporate innovativeness (t – statistics (42.719) > its critical values (0.000).

2. The finding of the study revealed that the covid-19 employee layoff has negative and significant impact on corporate competitive advantage in banking sector, since Covid-19 employee layoff reduces the number of trained staff that is capable of increasing performance thereby declines corporate competitive advantage (t – statistics (49.424) > its critical values (0.000).

Conclusion
The study concluded that covid-19 pandemic has negative and significant impact on corporate performance in manufacturing companies in Nigeria. Covid-19 lockdown increases manufacturing company operating cost in buying face-mask and hand sanitizer thereby reduces corporate effectiveness. Covid-19 lockdown results to revenue losses in manufacturing organizations thereby reduce corporate effectiveness. Covid-19 work-from-home results to poor work output due disturbances from family members thereby declines corporate innovativeness. The study concluded also that Covid-19 employee layoff reduces the number of trained staff that is capable of increasing performance thereby declines corporate competitive advantage and Covid-19 employee layoff increases operating cost in paying downsize compensation packages to affected employee in redundancy thereby declines corporate competitive advantage.

Recommendations
The study recommended that
1. The management of manufacturing companies in Nigeria should provide alternative office accommodation apart from home and necessary communication media to pass information to office members in order to encourage social distancing in production hall.
2. The management of manufacturing companies in Nigeria should provide survival compensation packages during the covid-19 lockdown until removal lockdown for employee retention instead of downsize staff.

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