



Covid-19 Pandemic and the Productivity of Insurance Companies in Nigeria

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Abstract: *The global health institutions have proclaimed an epidemiological pandemic as a global exigency outbreak that has negatively impacted the global nations and countries. Based on this, the study investigates covid-19 epidemiological pandemic and insurance productivity in Nigeria during two years (2020 and 2021). The employment of after-the-fact design is established from second-party data sourced through annual financial reports and NCDC reports from 2020 to 2021. Multivariate ordinary regression statistics would be used to examine and analyze through the establishment of a quasi-experimental design. The findings from the first model have shown an insignificant positive relationship between return on capital employed by active epidemiological patients, recovered epidemiological patients and death of epidemiological patients by Nigerian insurers. However, the second model showed contrary findings. The active and death COVID-19 patients have a negatively insignificant relationship with return on assets to insurance companies in Nigeria but recovered COVID-19 patients have an insignificant positive relationship with insurance companies in Nigeria. It is recommended that a vital responsibility in minimizing the negative consequences and impacts of epidemiological diseases is played by economic digitalization investment and technological advancement. However, e-commerce relationship marketing as well as brand loyalty on potential and existing policyholders and insurers can get what they want at any point in time.*

Keywords: COVID-19 Pandemic, Active, Recovered and Death Epidemiological Patients, Insurance, Insurance companies, Productivity

JEL Classification Code: G32, G22, L25

Introduction

In 2020, the emergency of an epidemiological virus has globally encouraged and changed the economic workforce in all governmental sectors including private enterprises in order to assist the public in their welfare through natural and artificial restrictions worldwide (World Health Organization [WHO], 2020). The adequate risk management practices have been imbibed by different countries and nations across the globe so as to prudently reduce the epidemiological contracting spread of pandemic in order to tackle political and economic vices (World Economic Forum [WEF], 2020). Basically, the time frame needed in assessing the consequences of epidemiological outbreak to liquidity ratios in Nigerian quoted primary insurers has made Nigerian industries to fortify the wellbeing schemes for early wellbeing exigencies due to recorded cases of confirmed COVID-19 pandemic patients (Nigeria Centre for Disease Control [NCDC], 2022).

According to Tashanova *et al.* (2020), the emergency of epidemiological disease has brought proclamation warning by governmental agencies which lead to the

closed businesses and movement restrictions through international transportation confinement that result to business interruption and consequential loss. Based on this, Ramos (2017) and Ukpong (2019) asserted that risk management tool through insurance serves as an organized financial loss protection against prospective losses are used to codify the imperative materials employed for insurers' perils. In the words of Junk, Park, Hong and Hyun (2016), the confinement of human beings and international cargoes as well as the development of privately owned businesses hindrance reduce the investment as a result of the deprivation of shareholders, stockholders' trust in the security industry. Muhammad *et al.* (2017), most authors have done some studies searching for the market value of shares and its association with return on equity, return on assets and earnings per share.

Abruptly, sudden closures of borders, worldwide restriction of international trade and other economic investments are geometrically consequential affecting worldwide trade due to the emergency of epidemiological pandemic outbreak (Banwo & Ighodalo, 2020). (Aifuwa, Saidu & Aifuwa, 2020), government and individual



enterprises or businesses are interrupted as result of movement restriction and lockdown due to stakeholders assured loss. Under the government lockdown directive, the personal enterprises on financial and non-financial performance would hinder the business operations. Furthermore, the increment of unemployed workforces caused from individual businesses being downsized makes them to objectively investigate the epidemiological pandemic outbreak in productivity of Nigerian insurance enterprises.

Globally, the value chain distribution of manufactured and services companies as well as other consulting enterprises are non-directly and negatively affected by the epidemiological pandemic (Banwo & Ighodalo, 2020). Al-Shahrani and Zhengge (2020) asserted fiscal and non-fiscal profitability are measured as executives' objectives and business capacity traits. Management of financial institutions is being investigated by many researchers and scholars (Kabajeh, Ahmed AL-Nu'aimat & Dahmash, 2012; Abadi *et al.* 2013; Muhammad *et al.*, 2017; Aifuwa *et al.*, 2020). However, the objective of this study is to investigate the impact of active Covid-19 patients, recovered Covid-19 patients and death Covid-19 patients on insurance companies' return on capital employed in Nigeria.

Literature Review

According to McKibbin and Fernando (2020), an epidemiological pandemic virus has been pronounced as coronavirus disease by China. Globally, more than 210 countries and nations have had emergency of epidemiological pandemic diseases (Worldometers, 2020), and WHO has pronounced epidemiological diseases as a worldwide pandemic outbreak by all healthcare operators worldwide (McKibbin & Fernando, 2020). However, the contracted virus has abruptly put all playful operators' efforts by putting forward all measurements to examine the usage of Hydrochloroquine and other drug medications (Addi *et al.*, 2020), in which exactly 27th May, 2023 marked the detection of COVID-19 pandemic in Nigeria, more than 245,999 active cases with almost 3500 cases were recorded as death (NCDC, 2022).

In the words of Kim (2020); Addi *et al.* (2020); Bai *et al.*, (2020); Nigeria Centre for Disease Control [NCDC] (2020) asserted that epidemiological pandemics are not certainly transmitted to create awareness to health practitioners and research offices from illness directive on contracted people. The symptoms and signs of a pandemic in a single person include dry throat and cough, fever, shortened breath, and acute pneumonia as well as death, in which from two to fourteen days is the period of incubation for epidemiological disease called COVID-19 pandemic (NCDC, 2020). Basically from these assertions, politics on this agenda have given optimistic developments by prioritizing wellbeing on securitization

of health and healthcare for futuristic investment (NCDC, 2022). Bai *et al.*, (2020) opined that highly spread status of an epidemiological pandemic caused by the asymptomatic and symptomatic nature of a single person throughout the globe. Attempted to singlehandedly identify enormous epidemiological examinations or investigation may result in racing the populace to the challenge pandemic risk (Addi, Benksim, Amine, & Cherkaoui, 2020).

This study emphasizes the psychological and interdisciplinary theories, in which the psychological theory states the emotional, human behavioral and thoughtful acts as well as motivational incentives are the authors and researchers predict on behavioral emotion of human being for futuristic event. As a result of this, psychological theories use to identify interpersonal relationship, human personality and early experiences through culture, society and religion (Rawat & Jain, 2022). The interdisciplinary theory states the integration and combination of multiple academic disciplines into one activity. That is, it emphasizes on the knowledge of sociology, anthropology, psychology and economic field of study that will assist the effect of epidemiological examinations or investigation (Peek & Guikema, 2021).

Empirical Review

In the words of Abere and Ojikutu (2022), the restriction of movement to combat the epidemiological pandemic discontinued recovered economy, which touched fiscal markets and servicing delivery firms but led to increments in insurance claims payment. Globally, the pandemic impacts have been overwhelmed the insurance business, which led to low premium growth prospects, capital market volatility, asset risk, etc. opportunities and threats raised across the globe. However, the study revealed negative impacts of COVID-19 on business, which also leads to the reactivity of opportunities.

Rossouw (2020) asserted that the epidemiological disease led to movement restriction and lockdown as well as other preventive measurements which resulted in advancement in digital underwriting, administrative work and claims management processes. As a result of this, financial capabilities and solvency margin of insurance companies have suffered, which requires primary insurance companies to align with the rules and regulations of the regulators so that apparent opportunities would be effectively and efficiently embraced, especially through digitalization transformation, transmission and transitional resilience due to epidemiological pandemic era (Hay, 2020).

Also, the demand for health and life insurance plans or coverage is now encouraged by the proposed policyholders to healthcare service providers, which the primary insurance companies should redesign the policy form in order not to hinder the material facts due to epidemiological pandemic disease so that financial



strategic and financial performance and productivity will not be affected (Hay, 2021). In addition, the management of claims processes, financial internal control, business and customer loyalty, and enterprise expectation should be well managed due to negative impacts of epidemiological COVID-19 in order to exploit the integration of opportunities and threats of the virus (Andrews, 2020).

Emergency response coverage should be incorporated into insurance policy in order to fast track the policyholders' claims settlement (Aberé & Ojikutu, 2022), in which Hay (2021) stated that China has now incorporated COVID-19 coverage as an extended cover into healthcare policy plans. It revealed that futuristic changes and predictable investment decisions are suggested from findings in which share prices have significantly been impacted by cash flow over share and ratio of price earnings as well as asset return which serve as capital market metric measurements that can move price values (Haqae, Datta, Dey, & Rahman, 2013).

Ozili (2020), COVID-19 has negatively caused the financial crisis and hyperinflation in the Nigerian system beyond reasonable doubt. According to Vijitha and Nimalathasan (2014) established that share prices are significantly effected and correlated by accounting information. This means the accounting information value is relevant to the industrial enterprises on Colombo Stock Exchange. In the words of Ali *et al.*, (2017), ROA, EPS, ROE & market per equity value have constructively improved productive sustainability in order to buyback operational enterprises. Stable EPS, high ROA and gross margin, company size as well as share liquidity had positively influenced the investment management value decisions as maintenance of portfolio managers (Holloway, Rochman, & Laes, 2013).

According to Ali *et al.* (2017), it was investigated that accounting information and company value had positively affected relevant value as evident clarification by Tehran Stock Exchange. The past review has shown ROA, ROE and ROI are positively associated. Meanwhile, ROA and ROI had separately lower ratio with prices of shares but return on equity had no association on public insurers in Jordan (Kabajeh *et al.*, 2012). Meanwhile, unnoticeable preventive range between the insured, underinsured and uninsured risks has been attended by the primary insurers, but both underinsured and uninsured losses are geometrically growing than other losses which may affect the financial performance of the insurance companies (Birriteri, 2020). However, it was revealed that the market share price was significantly having impacted by earnings per share and returns on equity (Chandrapala & Guneratne, 2011). In 2007, it evidently revealed that the capital structure did not have any association on ROCE & EPS (San, O. T., & Heng, 2011).

Materials and Methods

This research design adopted is the use of an ex-post facto research design in order to investigate the impacts of COVID-19 Pandemic (ACP, RCP and DCP) on quoted insurance companies' performance (ROCE) in Nigeria. Quantitative data is adopted from 2020 and 2021 through financial reports of five randomly selected insurance companies. The presented and analyzed data employ ordinary inferential statistics and schedule. Also, collected secondary data will be used from five randomly selected States and insurance companies in Nigeria to analyze through multiple regression analysis.

Table 1: Specification of Independent and Dependent Variables

S/N	Variables	Proxy	Measurement	Variables Specification
Yt	Return on Capital Employed	ROCE	NPAT/Capital Employed	Dependent
X1t	Active Covid-19 Patients	ACP	No. of Contracted Patients	Independent
X2t	Recovered Covid-19 Patients	RCP	No. of Recovered Patients	Independent
X3t	Death Covid-19 Patients	DCP	No. of Death Patients	Independent

Source: Authors' Computation from SPSS (2024)
Specification of model

Multivariate ordinary theory adopted below:

$$ROCE = f(ACP, RCP, DCP) \text{ --- --- 1}$$

$$ROCE = \beta_0 + \beta_1ACP_t + \beta_2RCP_t + \beta_1DCP_t + \xi \text{ --- 2}$$

Where:
 ROCE = Return on Capital Employed
 β_0 = Autonomous
 ACP = Active COVID – 19 Patient Cases
 RCP = Recovered COVID – 19 Patients Cases
 DCP = Death COVID – 19 Patients Cases
 ξ = Unexplained variable

Presentation and Interpretation of Results

The presented and interpreted numerical data obtained for 2020 and 2021 on financial reports from randomly selected insurance companies are used for the analysis through multivariate regression analysis for future decisions. Multivariate ordinary least Square Statistical Analysis which explained the models of study below;

Table 2: Model Summary



Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R square Change	F change
1	0.331	0.110	-0.336	10.7805	0.110	0.246

Source: Authors' Computation from SPSS (2024)

return on capital employed that is not affected by the independent variable (active epidemiological patients, recovered epidemiological patients and death epidemiological patients), in which the unexplained variable is 89% from the R Square as compared. All independent variables such as active epidemiological patients, recovered epidemiological patients and death epidemiological patients are positively affecting productivity by 0.001, 0.000 and 0.028 respectively.

Active epidemiological patients, recovered epidemiological patients and death epidemiological patients have a direct (positive) but insignificant association with productivity (Return on Capital Employed) as represented by the p-values of 0.861, 0.857 and 0.811 not lesser than 0.05 respectively.

Table 3: Summary of Anova

Model		Sum of Squares	Df	Mean Square	F	Significance
1	Regression	85.911	3	28.637	0.24	0.861
	Residual	697.309	6	116.218		
	Total	783.220	9			

Source: Authors' Computation from SPSS (2024)

Generally, the relationship between the active epidemiological patients, recovered epidemiological patients and dead epidemiological patients is positively insignificant on Return on Capital Employed as represented by the p-values of 0.067 from the coefficient where the p-value is greater than 0.05, which indicates that there is statistical and positively insignificant relationship between the COVID-19 pandemic and insurers' productivity in Nigeria.

Table 4: Summary of Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Significance
		B	Std. Error	Beta		
1	Constant	15.273	6.847		2.231	0.067
	Active COVID-19 Patients	0.001	0.003	0.189	0.182	0.861
	Recovered COVID-19 Patients	0.000	0.001	-0.498	-0.188	0.857
	Death COVID-19 Patients	0.028	0.113	0.637	0.250	0.811

Source: Authors' Computation from SPSS (2024)

Conclusion and Recommendations

The model is a positive relationship between return on capital employed and active epidemiological patients, recovered epidemiological patients and dead epidemiological patients, but reveals there is an insignificant positive relationship between return on capital employed and COVID-19 pandemic on insurance companies in Nigeria. Generally, the model is a positively insignificant association between the COVID-19 pandemic and insurance companies' productivity in Nigeria.

Discussions of Results

The model summary of regression analysis is shown in Table 2 above through the coefficient summary on how good the fit of the regression line to the sample observation of the dependent and independent variables, from the research result value R was 0.331; the value of R² was 0.110 and the value of Adjusted R was -0.336. ANOVA statistics showed the F calculated value to be 0.240 with numerator degrees of freedom (3, 6) and insignificant because the 0.861 > 0.05. This implies that the independent variables are explained by a positively insignificant association with the dependent variable.

The multivariate ordinary findings from the model below: Therefore,

$$ROCE = 15.273 + 0.001ACP + 0.000RCP + 0.028DCP + 89 - - - 3$$

The equation indicates that the Y-intercept is 15.273 as an autonomous component for the relationship between

However, the presence of the COVID-19 pandemic has made the regulators to have reactivity in creating awareness and caused uncertainty among the insurance companies. Also, the apparent weaknesses of the insurance sector have provided an opportunity for primary and secondary insurers as well as the regulatory bodies to stand better equipped to embrace and adopt innovation to develop the insurance market through efficient accelerated digitalization, leveraging greater risk appreciation of potential and existing policyholders, building customers trust and loyalty in the insurance sector as well as comprehension of true financial position to define strategic and operational decisions.

The conclusion of the research study is basically on the main economy and operational businesses existence which would have been downsized by an epidemiological pandemic. The downsized enterprises would bring enormous gaps of impacts on insurance businesses. And,



some other established enterprises are still fiscally, strategically, financially, ethically and operationally striving for strategic headways to tackle the challenges which COVID-19 has brought to give adequate status of operational resilience to many operational companies and enterprises.

Research findings revealed challenges, but COVID-19 pandemic measures did not have any consequences on performance and sustainability of the insurance business. However, it enhances and reshapes the strategies to be adopted in policies rendered by using an effective digitalization of essentially service delivery. Likewise, an epidemiological pandemic has led insurers to highlight the existing and potential obstacles as well as opportunities in the insurance industry to improve the sustainability and performance of the industry in order to reposition the sector for a post epidemiological era that requires a comprehensive response beyond short term continuous business measurements.

It is recommended that a vital responsibility in minimizing the negative consequences and impacts of epidemiological diseases is played by economic digitalization investment and technological advancement. However, e-commerce relationship marketing as well as brand loyalty on potential and existing policyholders and insurers can get what they want at any point in time. Also, business diversification should be especially set on critical business operations in order to divert them on non-critical settings.

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