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COVID-19 Pandemic and Performance of Quoted Insurance Companies: Examination from Delta, FCT, Lagos, Oyo and River State in Nigeria

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Abstract

The measurements of Covid-19 pandemic outbreak have limited the performance of all financial institutions as well as all the global health institutions, which this has directly or indirectly led to consequential losses and interruption of businesses around the world countries. The objectivity of the study is to examine COVID-19 outbreak and performance of quoted insurers' firms in Nigeria. The ex-post facto research design technique is employed from secondary data which are sourced from Nigeria Centre for Disease Control reports and annual financial reports for two years (2020 to 2021). Multivariate ordinary regression statistics technique is used to analyze and investigate the quasi-experimental design establishment. The results of the study reveal that the active and death epidemiological patients have an indirect insignificant association between return on assets to insurance companies in Nigeria. While recovered epidemiological patients has a direct insignificant association on insurance companies in Nigeria. It is recommended that the insurance companies should have an assessment of their asset impairments in order not to reduce the face value of investment income on futuristic cash-flow. The shortcoming effects of the epidemiological diseases have an important role on investment of economic digitalization and technological innovation and advancement. Furthermore, customer satisfaction and product brand loyalty would be embraced if and only if electronic-commerce that can lead customer satisfaction and marketing association on genuine and prospective insured and direct insurers will have impact on operators' needs and desires at the point of agreements.

Keywords: COVID-19 Pandemic, Insurance, Performance
JEL Classification Codes: G32, G22, L25

1. Introduction

Global outbreak in 2020 has made the economic workforce in all formal industries to be prudently changed due to the epidemiological diseases presence, in which the natural and artificial lockdown and restrictions worldwide have apparently designed and assisted the public welfare of the populace (World Health Organization [WHO], 2020; Tashanova, Sekerbay, Chen, Luo, Zhao, & Zhang, 2020) and borders closures have effectively and geometrically affected international world trade as a result of epidemiological outbreak occurrences (Alade & Oguntuase, 2020). Truthfully, the epidemiological outbreak effects have brought different challenges in the assessment of financial mechanisms in Nigerian listed direct insurance companies, which the fortification of health schemes has made Nigerian industries especially insurance industry to put for early healthy contingencies as result of confirmed COVID-19 pandemic patients (Nigeria Centre for Disease Control [NCDC], 2022). Surprisingly, a robustly sound risk management practice has been employed to tackle the economic and political issues due the spread of epidemiological pandemic the contraction across the global villages (World Economic Forum [WEF], 2020).

The human confinement, hindrance of privately owned businesses and exported and imported cargoes decrease the international investments due to the advent of COVID-19 pandemic affected stakeholders, stockholders and shareholders' trust deprivation through the industrial securitization (Junk, Park, Hong, & Hyun, 2016). Based on this, Ramos (2017) and Ukpong and Acha (2017), insurance is a risk management tool, which stands as formally fiscal and financial hazard protections against potential damage and losses adopted in order to have codification for the important materials used for direct insurers' perils. The most significant objectives of financial risk management are maximization of profit, which improves the shareholders' wealth (Nguyen, 2022). The diversification of income earnings in insurance business industry has effect on contingent parameter especially profitability (Woodward, 2019).

Based on this, the shutdown of economies, artificial and naturally human isolation and restriction of contractual agreements are completely and forcefully imposed on psychological, ecological and disciplinary, psychosocial environments in all ramifications of human and business endeavors, which affect the improvement of insurance companies' performance. Despite the potential opportunities for business growth and business cohesion, demerits may outweigh its beneficiaries in terms of strict regulation, lack of acceptable associable agreement between the obligatory and association regulators. And, the authors have objectively examined the

COVID-19 pandemic outbreak on performance of Nigerian insurance firms (Aifuwa, Saidu, & Aifuwa, 2020) in order to objectively examine the active, recovered and death COVID-19 patients' impact on return on assets of quoted insurers' firms in Nigeria.

Also, Muhammad *et al.,* (2017) pinpointed that most researchers have researched some studies investigating for the market share value and their relationship on return on equity, earnings per share return on assets and return on capital employed as financial performance. Single organizations or business operations and government have discontinued temporarily due to lockdown and movement restriction from stakeholders assured losses. Under the financial and non-financial performance, the lockdown directive from government would hinder the business operations on the individual and public enterprises and governmental bodies. More so, the unemployed workforces' increment caused individual businesses to be downsizing. 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 (Alade & Oguntuase, 2020).

Al-Shahrani and Zhengge (2020) asserted fiscal and non-fiscal profitability are measured as executives' objectives and business capacity trait. Management of financial institutions is being investigated by many researchers and scholars as well as authors in order to effectively and efficiently has association with successful business performance (Aifuwa *et al.,* 2020; Muhammad *et al*., 2017). Consequently, the management of risk transfer from insurers' liabilities committed over future horizons has now become challenges as a result of COVID-19 pandemic in order to expend over long period. In comparison, life and non-life operators opine to agree liabilities and premium incomes within relatively short time in order to often more reprice the contractual business so that long-term properties investments can have more priorities over others by insurers (Kirti & Shin, 2020).

2. Literature Review

2.1 Conceptual Review

2.1.1 Concept of COVID-19 Pandemic

Globally, China and all healthcare operators have pronounced the coronavirus disease has investigated as epidemiological pandemic virus has been pronounced as coronavirus disease (McKibbin & Fernando, 2020; Worldometers, 2020) and putting forward all measurements to examine the usage of Hydrochloroquine and other drug medications (Addi, Benksim, Amine, & Cherkaoui, 2020). In Nigeria, the pronouncement of COVID-19 pandemic detection has been officially pronounced in May 27, 2023, in which almost 265,000 active patients' cases with more than4000 cases were recorded as death (NCDC, 2022). Kim (2020); Addi, Benksim, Amine, and Cherkaoui (2020); Bai *et al.*, (2020); NCDC (2020) asserted that research offices and health practitioners have played their roles by creating awareness the presence of epidemiological pandemics from the illness directive on contracted people.

In fact, cough and dry throat, shortened breath, acute pneumonia, fever, and death are the epidemiological pandemic's signs and symptoms in an individual patient within the period of two to fourteen-day incubation for epidemiological disease at the center. 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). The epidemiological pandemic spread status was caused by the asymptomatic and symptomatic nature of an individual human throughout the world (Bai *et al.*, 2020; Addi *et al.*, 2020).

2.1.2 Concept of Insurance

The definition of insurance is conceptually agreed by different schools of thoughts so that insurance business would be guaranteed by the promoters and entrepreneurs in order to prudently innovate operational and strategical risks. Insurance is a contractual legal business between insurers and insured as well as other potential policyholders who are legally binding to fulfill a legal promise contained in the policy form called contract deed (Akinlo, 2014). Likewise, insurance claim is an extraction of insurance premium which direct insurer has agreed to place back the insured to his pre-loss position against a loss suffered in the future or to indemnify a specific sum of funds if there is an occurrence of specified event (Irukwu, 2019).

2.1.3 Concept of Performance

Greene and Segal (2004) pinpointed that financial performance of insurer is prudentially expressed as the relationship between the gross underwriting premium income and gross underwriting expenses. Performance as level of objective and goal achievement of an organization or department instead of individuals or single person, which is totally based on one hundred percent. Dooren, Bouckaert and Halligan (2015) asserted that performance is conceptualized as effectiveness and efficiency from intentional quality of the attitude, actions and achievement, competency or capacity as well as sustainability of results and outcomes.

2.2 Theoretical Review

2.2.1 Mental Health amid the Pandemic Theory

The World Health Organization (2020) examined the symptoms painfulness and observations of danger as indicators of mental health for COVID-19 pandemic. Emotional distress is classified mental distress as one of the short-term status, which often leads to the resources limitation in order to manage stressfulness of status as well as day-to-day needful life (Patel & Rietveld, 2020). Initial evidence has suggested that depression, anxiety symptoms and self-observed stress are now detected as the usual psychological responsiveness to the COVID-19 disease (Rajkumar, 2020), in which more focus of research will be examined on health distress amid a large-scales issue (Wang *et al.*, 2020a).

2.2.2 Public Health Intervention Theory

During COVID-19 pandemic virus, non- medical interventions measurement does normally weaken the socio-cultural association of the people to regulate the emotional stress in order to adapt to their immediate environment (Williams, Morelli, Ong, & Zaki, 2018), isolation and loneliness exacerbation (Holmes *et al.*, 2020), which these become the risk factors for serious disorder of mental health (Cacioppo et al., 2006). During the COVID-19 pandemic, the serious stresses experienced especially financial and economic ones have caused different challenges in respect to interpersonal associations, faulty psychological resourcefulness, and make normal discussions to be stressful (Karney, 2020).

2.2.3 Emotional Psychology Theory

Rawat and Jain (2022) assert that the emotional, human behavioral and thoughtful actions and motivational incentives are the predictions on the behavioral emotion of human being for futuristic occurrences. Based on this, intrapersonal and interpersonal relationship, human personality and early experiences through culture, religion and societal activities would have been the factors that will influence the presence of COVID-19 pandemic on the populace, which may have impact on the performance of Nigerian insurance companies.

2.2.4 Disciplinary Theory of Social Sciences

Peek and Guikema (2021) investigate that combination and integration of multi-disciplinary academic environments should be embraced into single activity in order to positively affect the presence of epidemiological pandemic diseases. The knowledge integration of sociology, anthropology, psychology and economic field of study will enhance the impacts of epidemiological examinations or investigations through the prioritization of populace wellbeing on health and health care securitization for futuristic investment, which may have impact on the performance of Nigerian insurance companies.

2.3 Empirical Review

Abere and Ojikutu (2022) studied COVID-19 pandemic, assessment of its impact and insurability of pandemic risks in Nigerian insurance business. The specific objective is to analytically examine factors affecting the insurability of pandemic risks in the Nigerian insurance business. The descriptive and inferential statistics used were Kaplan Meter Model through Microsoft Excel package. The findings of the study revealed that the increments of insurance claims payment have been felt by financial servicing delivery firms and markets as a result of overwhelmed pandemic impacts on insurance business. This led to opportunities and threats raised through minimum prospects of gross premium growth, volatility of capital market, risk of property among others across the global village. However, the result of this study showed indirect impacts of COVID-19 on operational business, which also leads to the re-activeness of opportunities. It is recommended that minimization of pandemic negative impacts in order to strategically maximize the inherent opportunities.

Ozili (2020) studied COVID-19 pandemic and economic crisis on Nigerian experience and structural causes. The investigation of the study is to examine the effects of COVID-19 on macro-environment using sectoral parameters. The descriptive and inferential statistics adopted were percentages, Two-way ANOVA and Co-Variance. The findings of the study were that student's educational process was negatively affected by 96%. Socio-cultural activities brought down due to lockdown by 53%, religious activities were affected due to only 20 members per 2 meters distancing measurement by 58%, while economic loss against price of goods increment, which all these led to macro environmental differences. It was recommended that workable healthcare, social and educational welfare policies formulations and implementations in order to quickly respond more on domesticated by-products and products.

Babuna *et al.*, (2020) asserted the impact of COVID-19 on insurance industry, which the study investigated the case of Ghana with a parallel comparison to SAS-CoV, HINI and MERS. Qualitative and quantitative interviews were used for this study. During COVID-19 persistent, insurance companies had to adopt remote location operations, training and equipping staff to work under the guideline of social distancing regulations, cyber-security protocols and claims and premium processing through e-payment channels. It is recommended that it should require the collaboration of the

Ghana Ministry of health, Banking Sector, Police Department, Custom Excise and Preventive Service as well as other relevant ministries.

Solanke, Olugbamiye, Olaleye, and Ekundayo (2020), examined the COVID-19 pandemic effects on insurance companies' productivity in Nigeria. The outcomes indicated that COVID-19 is highly effective on Nigerian insurance companies' productivity, which revealed that different risks exposed during the pandemic had made insurers to have more policyholders. The recommendation of the study required the insurers should be proactive on the assessment of funds for risk management should be the insurance companies' priority, and reservation of funds budgeted by government should be enough for any emergent disasters.

Soye and Maliki (2020) opined that the emergent COVID-19 pandemic outbreak and performance of insurance business in Nigeria. The study examined to adopt for unprepared strategies due to COVID-19 for economic shock on the insurance companies' businesses. The results revealed that COVID-19 pandemic has exposed insurance companies' businesses to economic shock in Nigeria. However, it was recommended that insurers should evaluate their assets impairments in order to ensure there is significant reduction in the investment face value below its cost effective on future cash-flow.

Nseobot *et al.*, (2020) studied to examine the relationship between COVID-19 and situational analysis of Nigerian economy. Ex-post facto design was adopted through government official documents using Bartlet-kernel procedure. The findings of the study revealed that COVID-19 pandemic is positively significant on the economy of Nigeria. It was recommended that the government should use intensified efforts to curb the spread of pandemic. Also, healthy environment should be improved and promoted in order to have enabling economic environments.

Rossouw (2020) studied COVID-19 pandemic by using the hindsight to gain foresight. The objective of the study was examined the epidemiological disease leading to digitalization advancement in underwriting, administrative work and claims management processes due to movement restriction, lockdown and other preventive measurements. As a result of this, financial capabilities and solvency margin of insurance companies had suffered, which recommended the 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 advancement transformation, transmission and transitional resilience due to the presence of epidemiological pandemic era.

2.4 Research Gap

Generally, it is observed that the previous research studies were examined in developed and developing countries of the world, and political, environmental, economic and socio-cultural differences between the developed and developing countries reduce the application of the findings to the general globe. Abere and Ojikutu (2022) opined that movement restriction led to the discontinuation of recovered economy due to the epidemiological pandemic prevention. The emergency response coverage incorporated as material facts into insurance policy in order to fasten the procedural track of the policyholders' claims settlement as a result of insurance claims payment increment (Nseobot *et al.,* 2020)).

Rossouw (2020) emphasized that movement restriction, lockdown and other preventive measurements due to COVID-19 epidemiological disease reshaped the procedural ways of transacting insurance businesses. Babuna *et al.,* (2020) asserted that the presence of epidemiological pandemic disease has encouraged the existing and prospective policyholders to have involved on healthcare service providing. In addition, Abere and Ojikutu (2022) asserted that COVID-19 pandemic has exploited the integration between opportunities and threats in the aspects of claims management processes, financial internal control, business, brand and customer loyalty, and enterprise expectation. Solanke *et al.,* (2020); Soye and Maliki (2020) examined the COVID-19 pandemic effects on insurance companies' productivity and businesses in Nigeria.

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3. Methodology

The research design of this study is employed an ex-post facto design through secondary data in order to objectively examine COVID-19 Pandemic (Active Epidemiological Patients, Recovered Epidemiological Patients and Death Epidemiological Patients) impacts on quoted insurance companies' performance (Return on Assets) in Nigeria using numerical data for two years (2020 and 2021) through financial reports of five randomly selected insurance companies and five States in Nigeria. The presented and analyzed data would be used with ordinary inferential statistics and table. Also, multiple regression analysis is used to analyze collected secondary data.

3.1 Specification of Model

The model adopted is multiple regression technique, which is being employed for the purpose of this study so that the analysis between independent and dependent variables would be justified (Babuna *et al.*, 2020; Ozili, 2020; Najaf *et al.*, 2013). Multivariate ordinary theory adopted below:

$$ROA = f(AEP, REP, DEP) --------------------1$$

$$\text{ROA} = \beta 0 + \beta 1\ \text{AEP} + \beta 2\text{REP} + \beta 3\text{DEP} + \text{U} ---------2$$

Table 1: Specification of Independent and Dependent Variables

S/N	Variables	Proxy	Measurement	Variables Specification
1	Return on Assets	ROA	NPAT/Total Assets	Dependent
2	Active epidemiological Patients	AEP	No. of Contracted Patients	Independent
3	Recovered epidemiological Patients	REP	No. of Recovered Patients	Independent
4	Death epidemiological Patients	DEP	No. of Death Patients	Independent

Source: Authors' Computation, 2023

4. Results and Discussion

Multivariate ordinary statistical model has shown below the regression statistical model, ANOVA analysis and Coefficient regression model measured.

Table 2: Multivariate Statistical Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R square Change	F change	Sig. F change
2	0.487	0.237	-0.144	9.7698	0.237	0.623	0.626

Source: Authors' Computation, 2023

Model summary of regression analysis shows from table 2 through the coefficient summary on how good is the fit of the regression line to the sample observation of the dependent and independent variables, from the research result value R was 0.487; the value of R^2 was 0.237 and the value of Adjusted R was -0.144. The R= 0.487 and p-value= 0.626 indicate that listed insurance companies are not significantly vibrant compared to their counterpart institutions. More so, the 0.237 as changes in performance (return on assets) is the main elements (AEP, REP, DEP) that reveal the elements of epidemiological diseases shown as R^2, and 76.3% has revealed the unexplained variable factors that could not be captured.

In addition to the above discussion, the summary of the study reveals $R^2 = 0.237$ that explains the COVID-19 pandemic proxies (AEP, REP, DEP) which results as 23.7% as the factors on return on assets of quoted insurance operators in Nigeria. But, unexplained variable of 76.3% was not captured. Though, the studies of most authors revealed the impact of COVID-19 pandemic on operational businesses. That is, Abere and Ojikutu (2022); Babuna *et al.*, (2020); revealed the indirect impact of COVID-19 pandemic on not only financial institutions but also other operational enterprises in the world. Ozili (2020); Rossouw (2020) posited that insurers' solvency margin and financial strengths have suffered due to COVID-19 pandemic; Nseobot *et al.*, (2020) revealed the impact of COVID-19 pandemic on not only financial institutions but also other operational enterprises in the world. Solanke *et al.*, (2020); Soye and Maliki (2020), examined the COVID-19 pandemic effects on insurance companies' productivity and businesses in Nigeria.

The economic implications of findings are that the COVID-19 pandemic has put financial threat and pressure on so many insurers to discharge their financial protection in terms of placing back the insured in their pre-loss position. Despite economic recessions in accordance with decline business income, unmanageable inflationary and unemployment trends, as well as unmanageable business debts in addition with other social, economic factors are importantly related with the outcome of the study.

Table 3: ANOVA Statistical Analysis

Model		Sum of Squares	Df	Mean Sqaure	F	Significance
2	Regression	178.280	3	59.427	0.623	0.626
	Residual	572.693	6	95.449		
	Total	750.973	9			

Source: Authors' Computation, 2023

The table 3 has shown the ANOVA statistics with the F-value of 0.623 with numerator degrees of freedom (3, 6). The insignificant level of 0.626 is greater than 0.05 which implies that the dependent parameter is directly insignificant by independent parameters.

Table 4: Multivariate Coefficients Model

Model		Unstandardized Coefficients	Standardized Coefficients	T	Significance

		B	Std. Error	Beta		
2	Constant	9.730	6.205		1.568	0.168
	Active COVID-19 Patients	-.0.001	0.003	-0.438	-0.455	0.665
	Recovered COVID-19 Patients	0.001	0.001	1.338	0.545	0.665
	Death COVID-19 Patients	-0.021	0.102	-0.486	-0.206	0.844

Source: Authors' Computation, 2023

From the multivariate model's findings are explained by the equation substitution below:
Therefore,

$$ROA = 9.737 + (-0.001)ACP + 0.001RCP + (-0.021)DCP + 76.3 - - - 4$$

The model indicates that the Y-intercept is 9.737 as an autonomous component for the relationship between return on assets that is not affected by the independent variable (AEP, REP, DEP).Active epidemiological patients and death epidemiological patients are indirectly affecting performance by -0.001 and -0.021 respectively, Abere and Ojikutu (2022); Nseobot *et al.*, (2020) revealed the indirect impact of COVID-19 pandemic on not only financial institutions but also other operational enterprises in the world. While recovered epidemiological patients is directly affecting productivity by 0.001, in which Babuna *et al.*, (2020); Ozili (2020); Rossouw (2020) posited that insurers' solvency margin and financial strengths have suffered due to COVID-19 pandemic. The association between the active epidemiological patients, recovered epidemiological patients and death epidemiological patients has a direct relationship with productivity, but insignificant as represented by the p-values of 0.665, 0.665 and 0.844 greater than 0.05 (level of significance) respectively.

Generally, the relationship between the active epidemiological patients, recovered epidemiological patients and death epidemiological patients is insignificant on Return on Assets as represented by the p-values of 0.168 from the coefficient where the p-value is greater than 0.05, which this indicates that there is statistically and positively insignificant relationship between the active epidemiological patients, recovered epidemiological patients and death epidemiological patients on productivity and performance (Solanke *et al.*, 2020; Soye & Maliki, 2020) of insurance companies in Nigeria. Abere and Ojikutu (2022); Babuna *et al.*, (2020); Ozili (2020); Rossouw (2020) revealed the indirect and direct impact of

COVID-19 pandemic on not only financial institutions but also other operational enterprises in the world and insurers' solvency margin and financial strengths have suffered due to the presence of COVID-19 pandemic.

The economic implications of findings are that the COVID-19 pandemic has put financial threat and pressure on so many insurers to discharge their financial protection in terms of placing back the insured in their pre-loss position. Despite economic recessions in accordance with decline business income, unmanageable inflationary and unemployment trends, as well as unmanageable business debts in addition with other social, economic factors are importantly related with the outcome of the study.

Also, the measurements used and COVID-19 virus employed to limit the disease spread have importantly destroyed the nations' economic operations of world, which leading to consequential economic damages and losses. Based on this, consequential business interruption of insurance companies against COVID-19 epidemiological risks could provide supportive motivations from governmental agencies, and formal organizations as well as NGOs. The vast and major large scale of these damages may have not intentionally to insure their consequential losses, in which this could be protected with support from governmental agencies based on specific catastrophic risk insurance programs experienced. Likewise, operational firms across the global economy have suffered an important decline in earning revenues due to governmental directives to unopened business organizations in order to reduce the spread of pandemic diseases among the customers and employees around the world. In order to protect the interruption of operational businesses, commercial property insurance policies coverage has been providing coverage for any consequential losses among the business organizations.

5. Conclusion and Recommendations

The model shows a direct association between return on assets, and active epidemiological patients, recovered epidemiological patients and death epidemiological patients, and an insignificant relationship between COVID-19 pandemic and performance on insurance companies in Nigeria. The insurers' return on assets is indirectly non-significant association with active epidemiological patients and death epidemiological patients in Nigeria. While, recovered epidemiological patients is directly non-significantly relationship on insurers' return on assets in Nigeria. Generally, there is directly non-significant association between COVID-19 pandemic and Nigerian insurance companies' performance.

However, the COVID-19 pandemic advent has put all the regulators and sellers on their toes in creating awareness due to uncertainty feeling caused among the insurance companies. More so, the opportunity attained by the sellers and regulatory bodies is now served as a better resource from the apparent and inherent weaknesses on insurance sector in order to embrace innovation to develop the insurance market through digitalization acceleration efficiency, greater risk appreciation leveraging for prospective and current policyholders, upholding customer loyalty and trust in the insurance sector, and true and fair financial report position.

The conclusion of the research study is that the advent of an epidemiological pandemic would have downsized the main operational businesses existence and economy. The vast impacts gaps on the downsized enterprises would bring opportunities and strengths to insurance businesses. While, other financial institutes and some formally established enterprises are financially, strategically, operationally, ethically, fiscally embracing for procedural and strategic way-out to tackle the consequences that pandemic disease had brought in order to give adequate operational resilience status to all business organizations.

Research results reported shortcomings on the performance of insurance business, which leads to the strategies adopted in using an effective and efficient innovative digitalization and securitization on essential service delivery in financial institutions especially insurance companies. Likewise, epidemiological pandemic has made insurance companies to repositioning the industry for quick comprehensive responses for post pandemic occurrence in order to measure the short and long periodic continuity for business measurements. In fact, the situation involving the presence of pandemic has brought unpredictability for insurers' businesses in the economy. Likewise, the insurance stakeholders should be proactive and prepared for any futuristic emergency in respect with the stemming up of claim incurred ratio that may affect profitability, budgets reservation, cash-flow as well as requirement of capital base.

However, the recommendations for this study are stated below;

i. The insurance companies should have an assessment of their asset impairments in order not to reduce the face value of investment income.

ii. An economic and innovative digitalization investment and technological advancement should be embraced for important roles in reducing the indirect effect and impacts of epidemiological pandemic.

iii. The current policyholders and insurance companies can have business diversification through electronic-commerce association marketing, customer and brand loyalty.

iv. This study should continuously investigate basic protocol, improved knowledge on the impact of recovered epidemiological patients' outcome on demand for insurance policies in Nigeria.

References

Abere, O. J., & Ojikutu, A. K. (2022). COVID-19 pandemic: Assessment of its impact and insurability of pandemic risks in the Nigerian insurance business. *Periodicals of Management Studies, 1*(1), 65-79.

Aifuwa, H. O., Saidu, M., & Aifuwa, S. A. (2020). Coronavirus pandemic outbreak and firms' performance in Nigeria. *Management and Human Resource Research Journal, 9*(4), 15-25.

Addi, R. A., Benksim, A., Amine, M., & Cherkaoui, M. (2020). Asymptomatic COVID-19 infection management: The key to stopping COVID-19. *Journal of Clinical and Experimental Investigations, 11*(3), 1-2.

Akinlo, T. (2014). The casual relationship between insurance and economic growth in Sub-Saharan Africa: A panel data analysis. Modern Economy, 5(2), 120-127.

Al-Shahrani, S. M., & Zhengge, T. (2020). The impact of organizational factors on financial performance: Building a theoretical model. International Journal of Management Science and Business Administration, 2(7), 51-56.

Alade, I., & Oguntuase, O. (2020). *Nigeria: COVID-19 and commercial transactions in some emerging legal issues*. Banwo & Ighodalo, Mondaq Limited. https://www.mondaq.com/nigeria/contracts-and-commercial-law/910150/covid-19-and-commercial-transactions-some-emerging-legal-issues

Babuna, P., Yang, X., Gyillbag, A. Awudi, D. A., Ngmenbelle, D., & Bian, D. (2020). The impact of COVID-19 on insurance industry. *International Journal of Environmental research and Public Health, 17*(16), 57-66.

Bai, Y., Yao, L., Wei, T., Tian, F., Jin, D, Y., Chen, L. & Wang, M. (2020). Presumed asymptomatic carrier transmission of COVID-19. *JAM*A.

Cacioppo, J. T., Hughes, M. E., Waite, L. J., Haekley, L. C., & Thisted, R. A. (2006). Loneliness as a specific risk factor for distressive symptoms: cross-sectional and longitudinal analysis. *Psychology Aging*, 21, 140-151. Doi: 10.1037/0882-7975.211140

Dooren, W. V., Bouckaert, G., & Halligan, J. (2015). Performance management in public sector. Second Edition. *Researchgate Publication*, 1-16

Greene, W. H., & Segal, H. (2004). Profitability and efficiency in the U.S life insurance industry. *Journal of Productivity Analysis. 21*(3), 229-247.

Holmes, E. A., Connor, R. C. O., Perry, V. H., Tracey, I., Wessely, S., & Arseneault, L. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *Lancet Psychiatry*, *7,* 547-560.

Irukwu, J. O. (2019). Insurance markets in the third world: will they play a significant role in the international insurance scheme? *Insurance Torch Journal*, *ASINS, ESUT*, *1(*2), 13-34.

Jung, H., Park, M., Hong, K., & Hyun, E. (2016). The impact of an epidemic outbreak on consumer expenditures: An empirical assessment for MERS Korea. *Sustainability*, *8*(454), 1-15. https://www.doi.org/10.3390/su8050454

Karney, B. (2020). Socioeconomic status and intimate relationships. *Annual Revision Psychology,* 72, 391-414. Doi: 10.1146/annurev-psych-051920-013658

Kirti, D., & Shin, M. Y. (2020). *Impact of COVID-19 on insurers*. International Monetary Fund Research, 1-11

McKibbin, W., & Fernando, R. (2020). *The global macroeconomic impacts of COVID-19: Seven scenarios*. https://researchgate.net

Muhammad, A. A., Usama, K., Hasnain R., Hafiz, A. A., Mohsin, R., Muhammad I. U. (2017). The relationship between ROA, ROE, ROCE and EPS ratios with break-up values of shares of Karachi-Pakistan fuel and energy listed companies. *Journal of Finance and Accounting*, *5*(3), 115-122.

Nguyen, Q. K. (2022). Determinants of bank risk governance structure: A cross-country analysis. *Research in International Business and Finance, 60,* 1-5.

Nigeria Centre for Disease Control (2022). *Two years of COVID-19 response: Building on lessons from COVID-19 to strengthen Nigeria's health security for the Future*. www.ncdc.gov.ng/news/358/two-years-of-covid-19-response%3A-building-on-lessons-from-covid-19-to-strength-nigeria%E2%80%99s-health-security-for-the-future

Nigeria Centre for Disease Control (2020). *COVID-19 pandemic outbreak*. Retrieved from 21st September, 2023. https://covid19.ncdc.gov.ng.

Nseobot, I. R., Soomro, M. Q. A., Effiong, A. O., Solangi, G. M., Idongesit, M., & Soomro, F. A. (2020). COVID-19: A situation analysis of Nigeria's economy. *International Journal of Psychological Rehabilitation*, *24*(7), 6845-6850.

Ozili, P. K. (2020). *COVID-19 pandemic and economic crisis: The Nigerian experience and structural causes*. MPRA Paper No.: 103131. https://mpra.ub.uni=muenchen.de103131/

Patel, P. C. & Rietveld, C. A. (2020). The impact of financial insecurity on the self-employed short-term psychological distress: evidence from the COVID-19 pandemic. *Journal of Business Venture*. Insight 14:e00206. Doi:10.1016/j.jbvi.2020.e00206

Peek, L., & Guikema, S. (2021). Interdisciplinary theory, methods and approaches for hazards and disaster research: An introduction to the special issue. *Risk Analysis*, *41*(7), 1047-1058.

Rajkumar, R. P. (2020). COVID-19 and mental health: a review of the existing literature. *Asian Journal of Psychiatric*. 52:102066. Hppts://www.doi.org/10.1016/j.ajp.2020.102066.

Ramos, C. M. (2017). *Insurance regulatory issues temporary measure for insurers following recent earthquakes.* Lexology: Law Business Research.

Rawat, T., & Jain, S. (2022). *Psychological theory based depression detention*. Elsevier, B. V./ Licensors/ Contributors. ScienceDirect@Trademark.

Rossouw, R. (2020). *COVID-19: Using the hindsight to gain foresight.* Institute and Faculty of Actuaries (IFOA), UK. Using the Hindsight to Gain Foresight (actuaries.org,uk).

Solanke, F. T., Olugbamiye, D. O., Olaleye, B. R., & Ekundayo, F. O. (2020). Effects of COVID-19 pandemic on insurance companies' productivity in Nigeria. *International Journal of Intellectual Discourse (IJID)*, 3(2), 180-187.

Soye, Y. A., & Maliki, O. T. (2020). COVID-19 pandemic and performance of insurance business in Nigeria. *Proceedings of the 2th International conference, The Federal Polytechnic, Ilaro*, 10th-11th November, 2020.

Tashanova, D., Sekerbay, A., Chen, D., Luo, Y., Zhao, S., & Zhang, Q., (2020). *Investment opportunities and the strategies in an era coronavirus pandemic.* https://ssrn.com/abstract=3567445

Ukpong, M. S., & Acha, I. A. (2017). Insurance and economic development in Nigeria. *Scholedge International Journal of Management Development, 4*(4), 28-39.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., & Ho, C. S. (2020b). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Resources and Public Health, 17*(50), 1729.

Williams, W., Morelli, S., Ong, D., & Zaki, J. (2018). Interpersonal emotion regulation: implications for affiliation, perceived support, relationships, and well-being. *Journal of Personal, Social, Psychology, 115*, 224-254. Doi: 10.1037/pspi0000132

Woodward, J. (2019). *Industrial organizations, theory and practice.* London: Oxford University Press

World Economic Forum (2020). *The impact of coronavirus on Businesses by Smith-Bingham Richard and Hariharan Kavitha*. The World Economic Forum COVID Action Platform. World Economic Forum. https://www.weforum.org/agenda/2020/02/why-is-coronavirus-a-global-business-risk/

World Health Organization (2020a). *Who Director-General's opening remarks at the media briefing on COVID-19, 11 March 2020.* https://www.google.com/search?q=WHO+%28World+Health+Organization%29.+2020a.+WHO+Director-G?eneral%27s+opening+remarks+at+themedia+briefing+on+COVID-19+-+11+March+2020.+11+March.&ie=utf-8&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a&gws_rd=ssl

Worldometers (2020). *Global statistics on COVID-19 Pandemic outbreak.* Retrieved from, https://worldometers.info/coronavirus