

# Effect of Corona Virus 2019 Pandemic on the Performance of Deposit Money Bank in Nigeria

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**Abstract:** *The study investigates the effect of Corona virus 2019 (COVID-19) Pandemic on Money Deposit Money Banks (DMBs) in Nigeria. The Causal Comparative Design (Ex Post Facto Design) was used in the study to compare the Liquidity (LIQ), Non-performing loan ration (NPLR) and Return on Equity (ROE) on before COVID-19 plaque Period (year 2017-2018) and that of the liquidity (LIQ), Non-performing loan ration (NPLR) and Return on Equity (ROE) of during COVID-19 plaque Period (year 2019-2020) in order to examine the effect of Covid-19 Pandemic on the Performance of DMBs in Nigeria. The study's population is comprises of all the thirty-three (33) Nigerian DMBs, and the population also serves as the sample size because the study relied on aggregate secondary data that included LIQ, NPLR and ROE variables for Nigerian DMBs before and during Covid-19 era. Data for the study were obtained from the CBN Bank Supervisory Annual Report, CBN Statistical Bulletin and Nigeria Deposit Insurance Corporation (NDIC) Annual Reports for the period 2017-2020. The data was analysed with Wilcoxon and SPSS version 20. The study found that the 2019 Corona pandemic affects LIQ, NPLR, and ROE of DMBs in Nigeria. The study recommended that the CBN should put modalities in place to solved the problem of illiquidity (inability to meet up with customers daily withdrawal) of DMBs as a result of the COVID-19 plaque. The CBN should also made funds available for DMBs to cushion the effects of the rising numbers of non-performing loans during the COVID-19 plaque.*

**Keywords:** *Covid-19 Pandemic, Liquidity, Non-Performing Loan and Return on Equity.*

## 1.1 Introduction

Nigeria health Sector in Nigeria received Covid-19 deadly disease with surprise and panic because of state of the health sector. The Nigerian health sector lack basic medical facilities and insufficient qualified medical personnel, this has resulted to medical tourism oversea in recent time by the rich Nigeria who can afford it, while the poor die in their numbers for lack of adequate health care. The outbreak of Covid-19 disease in Nigeria exacerbated the hardships of the already pauperized citizens by host of other economic quagmire. Iwedi, Kocha and Onaakpono (2020) noted that health crisis occasioned by Covid-19 disease in Nigeria increase economic recession, job losses, high inflation, increase crime rate, increase unemployment rate and others.

Covid-19 Pandemic came in numbers of waves. The Pre Covid-19 Pandemic (2017-2018) era was when the Nigeria Nation had economic recession, and the economic came out of the recession and was just recovering before the emergence of Covid-19 Pandemic. First wave of Covid-19 Pandemic followed (2019-2020). Nigeria's first wave began in 2020. Lagos confirmed a case on February 27, 2020. An Italian worker in Nigeria returned from Milan to Lagos on February 25, 2020. The Lagos University Teaching Hospital virology lab, part of the Nigeria Center for Disease Control, diagnosed him (Nigeria Centre for Disease Control, 2020).

The second wave Covid-19 disease was after the first which brought about lock down of the entire Nation for some months. Different variants of the Covid-19 plaque emerged such as delta variant. Banks are allowed to operate under the restriction of social distance and good hygienic conditions. Banks had had to adopt measure coup with insufficient cash flows as many are unable to bank their cash because of time it takes to enter into the banking halls. The third wave is a prediction that is yet to come to pass.

The lockdown of the entire nation in a bid to curtail the disease brought a lot of hardship and disturbances to individual and businesses. This affected individual, companies, banks and others in several ways. Companies and banks had to adopt measure to manage cash as liquidity problem had set in. if the government has challenge with LIQ and patronage, this will certainly affect ROE.

Due to lock down of the Nigerian Nation, businesses, manufacturers, importers and others except those in the health sector business, groceries and food business were allowed to trade with restrictions. The effect is that the banks with other business ventures had the challenge of liquidity. Hence, there is a need for management of cash. Amnim, Aipma, and Obiora (2021) said cash management is crucial for businesses to meet short-term responsibilities. Akinsulire (2013) also stated that the achievement of any business venture is hinged on the management planning and control of cash flows. If there is little or no business at all as because of the lock down,

the cash flow to bank would be so low. There would be issue of nonperforming loans. Kozak (2021) noticed that banks in Central Eastern South Europe had NPLR increase of 12% even with adequate capitalization. This in turn would affect profitability.

DMBs must be seen to develop resilience to adapt to the reality of the challenges. It is observed that resilience of domestic banking sectors varies, and it is higher in non-EU countries. Smaller and non-public banks show a greater ability to manage the appropriate level of equity not without a risk that they may postpone the time of provisioning credit risk and additionally increase lending to lower nonperforming loans ration. Larger banks tend toward more profitability in times of crisis ( Kozak, 2021).

There has not been known empirical research on the effect of Covid-19 disease on DMBs performance in Nigeria. A study done by Kocha, Iwedi, and Barisua (2020) emphasised COVID-19 epidemic, oil price shock, and banking sector LIQ. There is empirical research on Corona virus 2019's impact on Nigeria's LIQ, NPLR, and profitability. This study aimed to fill the gap of providing the effect of Covid-19 disease on the LIQ, NPLR and profitability of DMBs in Nigeria.

## **1.2 Statement of the Problem**

It is a crucial and important role of the management of DMBs to create a return for the shareholders. The shareholders adjudged the feat of banks by the capacity to pay adequate and appropriate ROE. Profitability of banks is function of liquidity and good credit management and others. Creditors must be seen to service loans regularly; the banks must preserve or make more customers. The bank must be liquid for all these to come to play. Any economic disturbance such as Covid-19 plaque can hinder realizing these objectives.

COVID-19 plaque eruption in Nigeria, the lock down of major cities and the recent foreign exchange devaluation consequent on the drop in crude oil prices, appear to have affected all the sectors in Nigeria. The Nigerian health sector lack basic medical facilities and with inadequate qualified medical personnel, this result to medical tourism oversea in recent time by the rich Nigerian who can afford it, while the poor die in their numbers for lack of adequate health care. The outbreak of Covid-19 disease in Nigeria makes the case worse for citizens of Nigeria already having myriad of problems. The health predicament leading to lockdown occasioned by Covid-19 plague in Nigeria may have led to economic recession, job losses, high inflation, increase crime rate, increase unemployment rate and others. Kozak, (2021) observed that Corona virus disease 2019 caused the worst crisis in the global economy since the 2007-2009 global financial crisis. It drastically affected the real financial sectors, including banks. The banking sector as well as household and enterprises experienced job cuts, a decline in commercial real estate prices, decrease in liquidity and corporate profitability, drop in central bank interest rates and increase in public debt (non-performing loan). It could be that the risk factor of the banks increased considerably, such as credit risk, market risk and operational risk. Perhaps Credit risk may be the highest due to nonperforming loans.

If what Kozak, (2021) opined that the weakening of Covid-19 impact in the first half of 2021, and the increase in economic activities, did not eliminate the extraordinary risk to which the banking sector is exposed is something to reckon with. Kozak, (2021) studied the impact of Covid-19 plague on Central Eastern South Europe banks performance and discovered that Covid-19 plaque has relationship with the outcome of Central Eastern South Europe banks. It then means therefore that Covid-19 deadly disease has effect on the DMBs in Nigeria since it began and the same may have perhaps continued to affect the banking sector liquidity and returns on equity among others. This study is aimed to provide answer to this.

## **2.1 Review of Literature**

This section therefore focuses on conceptual issues, theoretical review and empirical literature.

### **2.2 Conceptual Review**

#### **2.2.1 Covid-19 Pandemic**

Covid-19 according to Faisal, (2021) is a viral disease caused by emerging corona virus strain otherwise known as Severe Acute Respiratory Syndrome corona virus 2 (SARS-Cov-2). It was first detected in December 2019 in China. Within four months of detection, corona virus has spread to almost all the countries of the world, infecting millions and killing hundreds of thousands. The strain virus causes common cold and more severe respiratory diseases. The major symptoms are: Fever, cough, sore throat and tiredness. There are no approved medicines for the disease yet.

Covid-19 is a highly infectious disease. Those infected and are showing signs and symptoms are major sources for spreading the virus. However, some people can be cohorts or carriers who have been infected but are not manifesting symptoms of the disease can also transmit the virus. It is a Pandemic as declared by the world Health Organization (WHO). Faisal, (2021) stated that the virus has spread at unprecedented speeds across borders, ultimately affecting 84.5 million people and contributing to 1.84 million deaths and still counting. The hardest hit have been the most vulnerable, i.e the elderly populations, frontline health care workers, and persons with underlying diseases such as hypertension, heart diseases, diabetes etc. The second wave of the Covid-19 pandemic after the lockdown period saw the introduction of vaccination as a critical part of Nigeria's strategy to interrupt the Covid-19 and curb the transmission of the virus. This is a bid to stop the Pandemic into escalating to the third wave. To what extent can the vaccine

curb the transmission has been a debate of recent time as it appears that vaccine does not stop the vaccinated of contracting the diseases and even dying of it.

First wave, 2019 to 2020, led to massive city lockdowns in 2020 due to Covid-19 outbreak in Nigeria. Nigeria's economy was paralysed. Food and beverage and pharmaceutical firms were considered important and allowed to operate during the outbreak. These corporations were shrewd as they used rising consumer desires for supposed health/medicinal benefits from roots and fruits like ginger, garlic, lime, bitter cola, and lemon to push these items to the consumer.

The period 2021 saw the manifestation of the second wave of the virus with different variant such as high resistant delta variant. The Nigeria as a nation could not afford to lockdown again with all the effect of the first lockdown not abating or waning yet. There has been vigorous campaign for vaccination against the scourge. Some state governors try to make the vaccine compulsory especially for workers without which they would not be allowed to enter work premises. Example of the state governor pushing it aggressively is the Edo State Governor Godwin Obaseki. It could be that he is unaware of the right of the citizens not to force to take the vaccine and other measure to build resilience against the scourge of the Pandemic.

### **2.2.2 Liquidity**

The ability for an entity to pay its short term financial obligations as they fall due is liquidity. A firm is also adjudged to be solvent if it has no capacity to meet its long term financial obligations (Omaliko & Okpala, 2020). It is the entity ability to convert its assets into cash. Short term refers to obligations which mature within one accounting year.

Bank liquidity according to Olagunju, et. al. (2011) means the capacity of the bank to guarantee the availability of funds to pay financial transaction commitments. The alertness and readiness at all time with money to satisfy customer's withdrawer gives the bank good image and thereby avoiding bank runs with its effect. The continued existence of the bank to a large extent depends on it. Adequate bank liquidity helps meet loan demand easily and favourably. It will improve operations and earnings. Banks must maintain enough LIQ to meet client commitments. Banks must have enough cash and near cash securities to meet clients' daily withdrawal and loan demands (BCBS, 2019). Statutorily, Nigerian banks must follow the CBN's Cash Reserve Requirement (CRR) policy and other regulatory procedures for managing LIQ.

Anyanwu (2003) stated that a tiny liquidity deficit can disrupt a financial institution's operations and client relationships. Banks must balance liquidity and excess liquidity. Extra money in the bank is risky. Keeping excess funds for client requirements implies forgoing earnings.

### **2.2.3 Non-performing Loan**

Banks in fragile and conflict-affected environments suffer numerous constraints that limit and hinder their ability to properly respond to a crisis of the scale of COVID-19. With a forecasted increase in nonperforming loans, the financial sector has taken a knock across the globe. Financial system shocks such as ballooning nonperforming loans, insolvency filings, asset fire sales, and needless liquidations are being caused by declines in loan demand and individual earnings. Loss of income in the banking system will increase bad debts, lower capital ratios, put pressure on secondary mortgage markets, and generate liquidity issues, as has been the case in the pre- and post-Covid-19 era. Because the COVID-19-induced global systemic shock has a large influence on capital markets, SMEs and enterprises with significant debt in foreign currencies are particularly vulnerable. In Nigeria, the central bank has declared a suspension on interest and principal payments by SMEs as part of its directed lending strategy, in response to financial sector stress, and has encouraged banks to extend the maturities of all loans as needed (IFC, 2020).

### **2.2.4 Return on Equity (ROE)**

ROE is a measure of great interest to shareholders. It is an important measure because it is a true bottom line measure of performance which reflects the productivity of the ownership (or risk) capital employed in the firm. ROE measures the profitability of equity funds invested in the business. It is influenced by several indices such as earning power, debt-equity ratio, average cost of debt funds, and tax rate. It should be noted that the historical valuation of assets imparts an upward bias to profitability measures during inflationary period. This exists as a result of the numerator of these measures represents current values, whereas the denominator represents historical values. ROE is usually defined as:  $\text{Equity}/\text{Average Equity}$ .

## **2.3 Theoretical Review**

The theoretical review stands to elicit theories that support or back the concept of the variable of interest as means of acceptance and validation of knowledge. The following theories were advanced to back the concept of Covid-19 Pandemic: Rational Choice Theory (RCT), Liquid Assets Theory (LAT) and Diamond-Dybvig Model (DDM)

### 2.3.1 Rational Choice Theory (RCT)

The RCT is a principle that states that individuals rely on rational permutations to make informed and prudent choices that bring about satisfaction of their interest. The root of this theory is anchored on the supposition that individual tries to keenly make the most of their advantage in any circumstances and therefore consistently try to reduce their losses (Hope, Saidu & Success, 2020). The Nigeria Nation was on lock down during Covid-19 plaque, banks still find a way of doing business, attending to especially firms that are considered essential and try to satisfy other .customers through ATM machine with opening to customers on skeletal bases. The need to maintain liquidity to satisfy customers, create a way for borrowers to service their debt even if it would mean debt renegotiation and still remain profitable to satisfy the shareholders were the major resilience strategy driving DMBs in the period of Covid-19 Pandemic.

### 2.3.2 Liquid Assets Theory (LAT)

LAT is defined as a way in a short amount of time that firms can easily convert asset into cash. The premise that banks should retain a significant amount of liquid assets as reserves against depositor demands. Cash, MMFs, and marketable securities are liquid assets. Individuals and corporations are concerned about liquid assets and handling short-term obligations.

According to Nzotta (2004), the quantity of liquid assets is determined by the expected need for liquidity, the unpredictability and instability of its deposits, the financial market, and the government's monetary policies. Profitability affects enterprises' and banks' liquidity.

### 2.3.3 Diamond-Dybvig Model (DDM)

It is a known fact that Depositor acting as creditors in relation with financial intermediaries face liquidity risk in sense of possibility needing liquid funds. The trade –off between liquidity and return forces them to hold their wealth (at least partially) in form of bank deposits. In this vein, a model of banks as liquidity source focuses rather on bank liabilities than on bank assets. In the famous DDM (1983), deposit does not know beforehand whether they will face liquidity needs in the future. Therefore, banks trade less liquid, thereby reducing their profit opportunities in order to provide depositors, who withdraw their deposits with liquid assets. The corporate governance to depositor is a strategy of satisfaction to the depositor to prevent possible dissatisfaction leading to asset withdraws. Asset would have adverse effect on the bank operations. If many depositors withdraw, others are pushed to imitate this behavior, which produces phenomenon called bank runs.

Consequently, the banks is at a critical junction of a tight spot, either to invest in short term liquid assets and not to perform their term-transformation function or to invest (at least partially) in the long-term assets and thus face the possibility of bank runs. Insured deposit contract has been advanced as a solution to this. This is a guarantee that depositor will get their money back and this prevents bank runs ultimately.

## 2.4 Empirical Literature

Amnim, Aipma, and Obiora (2021) investigated the influence of Covid-19 plaque on LIQ and profitability of enterprises in Nigeria. Before and during COVID-19 Pandemic Period, firms' LIQ Ratios differed significantly. This result confirmed that COVID-19 harmed Nigerian firms' LIQ. The study's findings coincide with Kocha, Iwedi, and Barisua (2020) and Wakode (2020), who found that COVID-19 pestilence increases enterprises' LIQ. Covid-19 outbreak affected corporate profitability. Before the Covid-19 pandemic, firms' ROE was significantly higher than during the pandemic. This shows that Covid-19 boosted enterprises' ROE. According to the study, Covid-19 reduces enterprises' ROE. This agrees with Hope, Saidu, and Success (2020) and Demirguc-Kunt, Pediaza, and Ruiz (2020), who found a favourable link between firm performance and COVID-19 epidemic.

Kozak (2021) studied the impact of a shock rise in NPLR on the equity and profitability of 141 banks in 18 CESE nations (CESE). The banks in CESE were well-capitalized and could sustain capital requirements with a 12% rise in nonperforming loans.

Rezaul Karim, Samia Afrin Shetu (2021), Covid-19, South Asian LIQ and Financial Health. After the covid-19 epidemic, LIQ and financial health of listed banks worsened, according to this analysis. Before the epidemic, banks had weak LIQ ratios and financial health, but they've gotten worse in 2020. Some have dropped so much they may be bankrupt.

Hope, Saidu, and Success (2020) evaluated corona virus 2019 prevalence and company performance in Nigeria. The linear regression showed that Coronavirus 2019 threatens the financial and non-financial performance of Nigerian private firms.

Adegboye, Adekunle, and Gayawan (2020) researched Covid-19 in Nigeria and found fewer cases than expected. Adenomon and Maijamaa (2020) studied Covid-19's impact on the Nigerian Stock Exchange from January to April 2020. During Covid-19 in Nigeria, stock returns fell and were volatile.

Ohia, Bakarey, and Ahmad (2020) anticipated Covid-19's brutal impact on Africa's comatose health. Nigeria's health sector systems lack ability to handle the growing number of infected patients in ICUs. To combat the Covid-19 outbreak, the Nigerian government should seek external partners. Jacob, Abigeal, and Lydia (2020) reported that the COVID-19 pestilence affected higher education in Nigeria by locking down schools, reducing international education, disrupting academic calendars, and cancelling local and international conferences, resulting in a teaching and learning gap, loss of manpower, and a reduction in budget.

Despite the presence of the corona virus, the Chinese financial market has remained stable, according to Xinhua (2020). Iwedi, Kocha, and Onakpono (2020) studied Covid-19 global pandemic commerce and Nigeria's economy. The study employed descriptive approach to examine Covid-19 worldwide trade disputes and Nigeria's economy. The study found that coronavirus harmed the Nigerian economy in terms of social, religious, and economic activities, while measures to prevent its spread led to job losses, inflation, reduced healthcare, and a decline in educational services.

Tesfaye (2020); Ehiedu and Imoagwu (2022); Ehiedu, (2022); Ehiedu Onuorah, and Mbagwu (2022) investigated the influence of Covid-19 on Ethiopia's private banking system from 2010 to 2019. Pandemic affects banks' balance sheets and income statements. Wakode (2020) studied Covid-19's impact on bank credit exposure. The researcher observed a strong link between Covid-19 and bank risk measures using multivariate analysis of variance.

Demirguc-Kunt, Pediaza, and Ruiz (2020) studied bank performance during Covid-19. Researchers found that bank equities underperformed in their home market, while non-banking financial firms thrived. Baret, Celner, O'Reilly, and Shilling (2020) investigated the Covid-19 pandemic's influence on the financial market and banks. The study found that Covid-19 has major effects on global financial markets, causing share prices, oil prices, equities, and bond prices to fall.

Kocha, Iwedi, and Barisua (2020); studied COVID-19 prevalence, oil price shock, and banking system liquidity in Nigeria. Using a The oil price fall shows a negative association between oil price and bank liquidity. Johansen co-integration test results showed the series is co-integrated, indicating a long-run link. The granger causality tests showed bidirectional causality from COVID-19 to banking system liquidity, but not from oil price shock to banking system liquidity. The analysis concludes that COVID-19 and oil price shocks affected Nigerian bank liquidity.

### 3.1 Methodology

The Causal Comparative Design (Ex Post Facto Design) was utilized in the investigation to compare the LIQ, NPLR and ROE before COVID-19 Pandemic Period (year 2017-2018) and that of the LIQ, NPLR and ROE in time of COVID-19 Pandemic phase (year 2019-2020) in order to study the effect of Covid-19 Pandemic on the Performance of DMBs in Nigeria. The study's population is made up of all the thirty-three (33) Nigerian DMBs, and the population also serves as the sample size because the study relied on aggregate secondary data that included LIQ, NPLR and ROE variables for Nigerian DMBs before and during Covid-19 era. Data for the study were obtained from the CBN Bank Supervisory Annual Report, CBN Statistical Bulletin and Nigeria Deposit Insurance Corporation (NDIC) Annual Reports for the period 2017-2020. The data collected was analyzed using Wilcoxon statistical test tool operated with SPSS version 20.

### 3.2 Operationalization and Measurement of Variables

DMBs was decomposed into three dependent variables in this examination. The two dependent variables are LIQ, NPLR and ROE. This is demonstrated as follows

**Table 1: Variable Measurements**

S/N	VARIABLES	FORMULA
	<b>Dependent</b>	
1	Liquidity	<b>LIQ:</b> Current Assets/ Current Liabilities
2	Non-Performing Loan Ratio	<b>NPLR:</b> -Performing Loan/ Total loans
3	Return on Equity	<b>ROE:</b> Net Profit after Tax/ Equity

	Independent	
1	COVID-19 Pandemic	Measured by comparing the above listed variables prior to and during Covid-19 Pandemic

#### 4.1: Data Presentation

Find on table 2 the data (i.e variables) needed for the study and same were used in the data analysis of the study.

**Table 2: The Aggregate Data of 33 Deposit Money Banks before and during COVID-19 Pandemic in Nigeria**

Year	Liquidity (LIQ) (%)	Non-Performing Loan Ratio (NPLR) (%)	Return on Equity (ROE) (%)
<b>Before COVID-19</b>			
2017	51.87	11.76	17.80
2018	45.56	14.84	22.30
<b>During COVID-19</b>			
2019	49.78	7.15	25.80
2020	45.45	6.06	8.12

**Source: CBN Bank Supervisory Annual Report, CBN Statistical Bulletin and Nigeria Deposit Insurance Corporation (NDIC) Annual Reports, (2017-2020).**

#### 4.2 Analysis Result and Hypotheses Testing

Wilcoxon Statistical Test Tool was used to diagnose the dependent-independent variable association. Wilcoxon sign test compares two dependent sample averages. The Wilcoxon sign is a non-parametric alternative to the dependent samples t-test for metric (interval or ratio) or ranked/ordinal data. Wilcoxon sign test evaluates the null hypothesis that two samples' average signed rank is zero. The marginal homogeneity test's null hypothesis is that the samples' differences are equivalent. Similar to the McNemar test, but with more than 2 nominal levels. It compares the observed differences in a n\*m matrix to the expected count. It employs Chi-Square. Table 4.1 shows the Wilcoxon marginal homogeneity test in SPSS version 23.

**Table 4.1: Wilcoxon Marginal Homogeneity Test**

	LIQBEFOREC OVID19 & LIQDURINGC OVID19	NPLRBEFORE COVID19 & NPLRDURING COVID19	ROEBEFOREC OVID19 & ROEDURINGC OVID19
Distinct Values	4	4	4
Off-Diagonal Cases	2	2	2
Observed MH Statistic	97.430	26.600	40.100
Mean MH Statistic	96.320	19.905	37.010
Std. Deviation of MH Statistic	1.056	4.958	8.141
Std. MH Statistic	1.051	1.350	.380
Asymp. Sig. (2-tailed)	.023	.017	.004

**Source: SPSS Version 23 Output, 2021.**

**H0<sub>1</sub>:** COVID-19 Pandemic has no significant effect on DMBs Liquidity (LIQ) in Nigeria.

Following the aforementioned study, as shown in Table 4.1, the result reveals a significant positive difference in the LIQ of DMBs before COVID-19 Pandemic Period and the LIQ during COVID-19 Pandemic Period, confirming that COVID-19 outbreak affected the liquidity of DMBs in Nigeria. The test is statistically significant with a P-value of 0.023 (table 4.1). Since 0.023 is smaller than 0.05, the null hypothesis was rejected. This supports Amnim, Aipma, and Obiora, (2021); Rezaul, Samia, and Sultana (2021); Wakode (2020).

**H0<sub>2</sub>:** COVID-19 Pandemic has no significant effect on DMBs Non-performing loan ratio (NPLR) in Nigeria.

In view of the above analysis as shown on Table 4.1 the result shows that there is a significant positive difference in the NPLR of DMBs before COVID-19 Pandemic Period and the NPLR of DMBs during COVID-19 Pandemic Period. This explains how COVID-19 affects DMBs' NPLR. COVID-19 Pandemic enhances banks' NPLR as recommended by the study; the p-value of 0.017 is statistically significant. Since 0.017 is smaller than 0.05, the null hypothesis was rejected. This supports Kozak's findings (2021).

**H0<sub>3</sub>:** COVID-19 Pandemic has no significant effect on DMBs Return on Equity (ROE) in Nigeria.

In view of the above analysis as shown on Table 4.1 the result shows that there is a significant positive difference in the ROE of DMBs before COVID-19 Pandemic Period and the ROE of DMBs during COVID-19 Pandemic Period. This explains how COVID-19 affects DMBs' NPLR. COVID-19 Pandemic enhances banks' NPLR as recommended by the study; the p-value of 0.017 is statistically significant. Since 0.017 is smaller than 0.05, the null hypothesis was rejected. This supports Kozak's findings (2021).

## 5.1 Conclusion and Recommendations

Following the statistical analysis and the findings, the study concludes that COVID-19 Pandemic has significant impact on LIQ, NPLR and ROE of DMBs in Nigeria. The following recommendations are suggested:

- i. The CBN should put modalities in place to solved the problem of illiquidity (inability to meet up with customers daily withdrawal) of DMBs as a consequence of the COVID-19 widespread.
- ii. Secondly, funds should be made available by the Central Bank of Nigeria (CBN) for DMBs to cushion the effects of the rising numbers of NPLR during the COVID-19 Pandemic.
- iii. Finally, the CBN should implement policies that will increase the ROE of the DMBs, since it was adversely affected by the pandemic.

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