Economic Recession and Survival of Selected Deposit Money Banks Before and During the Covid-19 Era in Nigeria

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Abstract

The study "examines Economic Recession and Survival of Selected Deposit Money Banks before and during the Covid-19 Era in Nigeria". It uses secondary data. The secondary data used is annual reports of selected deposit money banks from the year 2015 to 2020. The population size used for this study was the entire 14 Deposit Money Banks listed on the floor of Nigeria Stock Exchange, whose shares were traded by the Security and Exchange Commission in Nigeria during the period under review, while only 5 banks were adopted as sample size because they were identified by Moody's Investors Service as the most affected banks in Nigeria during the last recession. Purposive sampling technique was adopted for the study, while regression and correlation analyses using E-views 9.0 statistical software packages were used to analyze the data and tested the formulated hypotheses at 5% level of significance. The study revealed that there is a significant effect between interest rate and banks' liquidity of Nigeria's deposit money banks, thus concluded that economic recession has a serious negative effect on the interest rate and inflation rate, which affects banks' survival variables like liquidity and share capital in the Covid-19 Era. It was recommended that the Central Bank of Nigeria in collaboration with Deposit Money Banks should coax interest rate on banks' liquidity downward in the areas of loans to stimulate the economy in case of another Covid-19 pandemic.

Keywords: *Covid-19, Economic Recession, Inflation Rate, Interest Rate, liquidity, Share Capital and Survival*

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Background to the Study

The sudden emergence of COVID-19, the novel coronavirus pandemic, has led to severe lockdowns. The sudden closure of several industries and businesses has threatened and disrupted the global economy and financial markets. Covid-19 caused an economic recession after more than a decade of steady economic growth. The global economy is at risk of losing billions of dollars in GDP due to the outbreak (Gnatyuk, 2020) cited in (Barua & Barua, 2021). An economic recession or recession is considered "a negative GDP growth rate when a country's economic situation deteriorates (NBS, 2016)". A recession is "an economic crisis in the business cycle when the economy is in recession for at least six months, meaning a decline in GDP, income, employment, production, and retail sales (Salawu & Bature, 2020). The banking sector is a mirror that reflects the entire economy. And the banking sector is expected to hemorrhage massively as all customers, from corporates to small businesses, struggle to survive. Banks play many different roles in the economy to survive. They alleviate information problems between investors and depositors by ensuring proper use of depositors' money; they provide the ability to smooth out risks that cannot be diversified over time at any given time, as well as insuring depositors against unexpected risk shocks. However, banks may face the risk of panic and systemic risk. Furthermore, banks contribute to the growth of the economy as they play an important role in corporate governance. The overall importance of the different roles of banks varies significantly across countries and times, but nevertheless, banks have always played an important role in the financial system. Banks play a significant and important role in the financial system in terms of capital formation, due to their inherent nature. Banks should receive more financial attention than any other type of economic unit in the economy.

Deposit Money Banks in Nigeria constitute a tightly regulated sector of the country's economy as they play a vital function in mobilizing funds from the surplus to the deficit units of the economy. Ultimately, this suggests massive investments in the banking sector and requires stakeholders to continuously review their operations to make an informed assessment of the bank's survival. Over the years, DMB has faced problems with persistent bad debts, an inability to accommodate customers' withdrawal requests when they request them, and unstable market prices, among other issues (Soludo, 2007).

The study on the survival of deposit banks before and during Covid-19 was driven by a series of banking reforms in Nigeria in the past. The reforms are an integral part of the nationwide reform programs undertaken to reposition the Nigerian economy to achieve the macroeconomic goals of price stability, full employment, and high economic growth and balance internally and externally. As part of this vision, the banking industry needs to effectively promote its true intermediary role and banks must be among the global institutions in the international financial markets. These reforms include: The 2004 reform of the consolidation program. As a result, banks were consolidated through mergers and acquisitions, increasing the capital base from N2 billion to a minimum of N25 billion, leading to a reduction in the number of banks from 89 to 25 in 2005, after that was down to 24 in 2007, 16 in 2017 and now 14 in 2021 following the merger of Access and Diamond Bank in 2020, listed on the Nigerian Stock Exchange (NSE) and their shares traded at the Security and Exchange Commission (SEC). The 2009 initial Diagnostic and Stabilization Reforms - given

the precarious situation of Nigerian banks, the CBN in June 2009 adopted three main methods to assess the financial position of 24 banks. The first was a special exercise conducted by the CBN and the Nigeria Deposit Insurance Corporation (NDIC); the second approach is to perform diagnostic audits through independent consultants; therefore, the third approach involves carrying out an audit of the management accounts of the banks concerned by their new management. The CBN's long-term reform measures focus on four main areas, which are: improving banking quality, establishing financial stability, creating conditions for the healthy development of the financial sector and ensuring that the financial sector contributes to the real economy.

Therefore, the Covid-19 pandemic entails the closure of commercial activities. This has negatively affected some sectors, while others have benefited. This has affected the manufacturing as well as construction sector due to stay-at-home measures. Business activity in general declined because people were no longer able to save or trade. Industries such as pharmaceuticals, services and finance are among those that have benefited to some extent from the Covid-19 pandemic in Nigeria because they are considered necessary and important. For example, the pharmaceutical industry is allowed to operate due to its necessity for human life. To some extent, the banking sector also benefited because despite the lockdown, bankers were allowed to carry out their business away from home. This has actually helped increase the profitability rates of most deposit money banks as most of their overhead expenses such as fuel and vehicle maintenance, purchasing diesel to run generators, internet in the office, refreshments, etc., has been reduced to a strict minimum. Low trading volumes, shortages of goods and closed markets caused an economic recession during the Covid-19 period when most drivers of economic activity went down. Macroeconomic variables such as investment decline, unemployment, inflation and interest rates are all very high.

It is necessary to consider the survival of Deposit Money Banks before and during the Covid-19 economic downturn, as the collapse of any bank could affect shareholders and stakeholders as well as the entire economy. Survival is a constant concern; the term "going concern" simply implies a basic statement of the business's intention to continue operating without risk of liquidation or bankruptcy in the foreseeable future, at least for one year. Indeed, a company can survive when it generates stable profits, pays its obligations as they fall due, manages debt, decides on equity and dividends effectively, effective in debt management, equity and dividends decisions and possesses the ability to utilize its assets efficiently with the vision of growing the market value of its shares as well as meeting other stakeholders' interest portfolio analysis and decision. This study examines the economic recession and survival of selected deposit money banks before and during the Covid-19 Era in Nigeria.

Statement of the Problem
Before the Covid-19 Era, Nigeria's Deposit Money Banks have been facing a lot of challenges, ranging from incessant non-performing loans, inability to meet customer called money as and when demanded, unstable market share prices among others (Soludo, 2007). During the period of recession, Nigeria's Deposit Money Banks struggled to survive due to a lot of challenges being faced before and during the recession, which necessitated a debate on the

causes of economic recessions in Nigeria and its consequences in recent times by different scholars, considering its resultant effects on banks' survival. Dey (2019) quoted in Barua et al (2021), stated that banking sector is already overburdened with a high default rate and non-performing loan/ asset (NPL) ratio, which puts top countries with high NPL ratios in Asia and the Pacific. Orode (2016) argued that the reasons why countries enter into a recession depend on the economic framework of that country. He identified high interest rates, increased inflation, and reduced real wages as factors which could be responsible for the causes of recession in a nation's economy. For him, economic recession in Nigeria's could have been triggered by a dip in government revenues and/or a drop in consumer spending and drop in oil prices.

Consequently, the banking sector has felt the impact of covid-19 largely in two ways: slowing revenues and increasing loan loss provision, which showed a decline of fee income from the first half of the year by 6% compared with the third quarter of 2019 (Kola-Oyeneyi & Kuyoro, 2020). Moreover, the last economic recession in Nigeria during the Covid-19 Era seems to have caused high interest rate and high inflation rate in the banking sector, which in turn could have affected the bank's survival variables in terms of liquidity an share capital of Deposit Money Banks in Nigeria, as a result of the fact that profit alone does not determine the wellness of the banks, because banks can be making profit and still face difficulty in going concern. This is because, "too much attention on profitability may lead the firm into a pitfall by diluting the liquidity position of the organization (Niresh, 2012) cited by (Ndum, 2021)". In the pursuit of profit maximization, banks must endeavor to balance credit extension push and liquidity management in such a way that a bank's safety is not jeopardized (http://iproject.com.ng, 2021). An attempt by banks to achieve higher profitability will certainly take a toll on the liquidity. Banks should be liquid and be seen to be healthy by all the indices of the regulatory authorities because profit alone can be manipulated. This study covered the structural problem.

Research Questions
To achieve the objectives of this study, the following research questions were observed:
  i.   To what extent do interest rates affect the liquidity of Deposit Money Banks before and during the Covid-19 Era in Nigeria?
  ii.   How does inflation rate affect the share capital of Deposit Money Banks before and during the Covid-19 Era in Nigeria?

Objectives of the Study
The main objective of this study is to examine economic recession and survival of selected deposit money banks before and during the Covid-19 Era in Nigeria. The specific objectives are to:
  i.   Determine the effect of interest rate on the liquidity of Deposit Money Banks before and during the Covid-19 Era in Nigeria.
  ii.   Evaluate the effect of inflation rate on the share capital of Deposit Money Banks before and during the Covid-19 Era in Nigeria.

Statement of Hypotheses

The hypotheses that were used and tested are stated below:

H_{01}: Interest rate had no significant effect on the liquidity of Deposit Money Banks before and during the Covid-19 Era in Nigeria.

H_{02}: Inflation rate had no significant effect on the share capital of Deposit Money Banks before and during the Covid-19 Era in Nigeria.

Literature Review and Theoretical Framework

Conceptual Review

Salawu et al (2020), defined a recession as an economic crisis in the business cycle when the economy contracts for at least six months, meaning GDP, income, employment, manufacturing, and retail sales are all reduced. The National Bureau of Economic Research (NBER, 2012) defines a recession as "a significant decline in economic activity distributed across the entire macro economy, lasting more than a few months, usually expressed through real gross domestic product (RGDP), real income, and employment", industrial production and wholesale and retail. CBN (2012) defines economic recession as a decline in several macroeconomic indicators such as GDP, employment, capital expenditure, capacity utilization, household income, business income and inflation, with corresponding increases in the unemployment rate. Mazurek and Mielcova (2013), in practical terms, define a recession as a period in which a country's gross domestic product (GDP) declines for at least two consecutive quarters compared to the previous quarter. With respect to this study, this concept (economic recession) is defined as a situation whereby the GDP of a country is declining concurrently with the increase in the prices of goods and services, because of downturn in the economic activities of a nation, on a six-month stretch consecutively.

Interest Rate

Lerner (2003), defines the interest rate as the price level equal to the supply of "credit" or savings plus the net increase in the quantity of money during the period, to the demand for credit or investment plus net "storage" during the period. This definition implies that interest rates are the price of credit, which, like other prices, is determined by the forces of supply and demand, In this case, the supply and demand for loanable funds. However, Fisher (1936) argued that interest rates are imposed for a number of reasons, one of which is to ensure that creditors reduce the risk of inflation. Inflation causes a nominal amount of money today to have less purchasing power in the future. The expected inflation rate is an integral part in determining whether interest rates are high enough for creditors. Keynes (1936) considered interest rate a purely monetary phenomenon, a reward for the use of money. This is the reward for parting with the liquidity of money. Therefore, a bonus is offered to the asset holders to encourage them to part with their money. Inflation rate.

Shawn (2018), defines the inflation rate as a measure of the increase in the price of a good or service over a period of time, expressed as a percentage. In the United States, it is typically measured monthly and annually. Inflation is an increase in the general price level of many products. Inflation in the United States commonly measured using the Consumer Price Index (CPI). According to the U.S. Bureau of Labor Statistics, the CPI is a measure of the average

change over time in the prices urban consumers pay for a basket of consumer goods and services. Hubbard & Obrien (2013) define the inflation rate as the percentage increase in price levels from one year to the next. Inflation rates are affected by both the business cycle and other long-term factors.

Concept of Bank's Survival

According to Cefis and Marsili (2012), survival refers to the ability of a business not to temporarily or permanently close its operations. A business exists as long as it purchases inputs from suppliers, processes them, and provides outputs to stakeholders. A business fails when it cannot convince resource suppliers to provide resources and the business cannot fulfill its short-term and long-term obligations to stakeholders. The survival of a business depends on many factors, both external and internal. According to Timothy (1991), cited in Odibi, Basit, and Hassan (2015), bankruptcy is a legal procedure in which an individual is unable to pay his or her bills. It is a legal process in which an illiquid company or individual is released from full liability for its obligations by entering into a legal agreement for partial settlement. After considering the different meanings of survival according to different authors, this concept (banks' survival) is defined as the ability to be on a going concern and efficiently utilize assets to meet other obligations for banks' sustainability and continuity.

Liquidity

According to Nzotta (2004), the amount of liquidity required by a business depends on various factors such as the nature of the business or industry, performance, business size or scale of operations; business cycle; production cycle; duty cycle and turnover rate; profit margin; profit allocation and depreciation policy; growth prospects; policy of tax; dividend policy and government regulations. The most important thing is to regularly monitor the liquidity situation of an organization because without it, the organization will not be able to survive. To avoid a liquidity crisis, the management of companies in particular must have clear policies and established processes for measuring, monitoring and managing liquidity, (IBE, 2013). Liquidity management is therefore an essential day-to-day process, requiring managers to monitor and project cash flow to ensure adequate liquidity is always maintained.

Share Capital

The Institute of Corporate Finance (2017) defined share capital (shareholder's capital, equity capital, contributed capital or paid-in capital) as the amount of money that a company's shareholders invest for use in the business. When a company is formed, if its only assets are cash invested by shareholders, then the balance sheet will be balanced on the right side through the capital stock, equity account. Frank & Sangster (2008) argue that the term "share capital" can have any of the following meanings: authorized share capital, issued share capital, raised capital: unrecovered capital, arrears calls, capital paid: Narayanaswamy (2010). defines share capital as the amount of money contributed by shareholders to the company's capital.

Concept of Covid-19 Era

The World Health Organization (WHO) first declared COVID-19 a global health emergency in January 2020; on March 11, they declared the virus outbreak an official pandemic, the

highest level of health emergency (Bill, 2020). The COVID-19 pandemic is wreaking havoc on the global economic and financial sector as it emerges as the biggest test to financial systems since the Global Financial Crisis (GFC) of 2008-2009. The Asian Development Bank predicts that the global economic cost of the pandemic is likely to be between $5.8 and $8.8 trillion (about 6.4-9.7% of world GDP), Park C, Villafuerte J, Abiad A, Narayanan B, Banzon E, Samson J et al. (2020) cited in Barua et al (2021). Since then, the emergency has grown into a global health and economic crisis, affecting the global economy more than anything it has seen in nearly a century. The virus infection has spread between countries and affected almost every community, demonstrating the tightly interconnected nature of the global economy: the virus has been detected in more than 200 countries and in every state in the United States (Washington Post, 2020). By early March 2020, the focus of infection had shifted from China to Europe, especially Italy, but in April the focus shifted to the United States, where the number of infections increased rapidly. In April 2021, India and Brazil became virus hotspots, with infections and deaths reaching record daily highs in these countries. During various stages of the health crisis, governments adopted a number of policies to limit social activities to prevent the spread of the pandemic, unintentionally creating a global economic recession. In response to the unprecedented decline in economic activity, governments have adopted a series of initial measures including monetary policies aimed at stabilizing financial markets and ensuring the flow of credit, fiscal measures to support economic growth, then as governments-imposed quarantine and social distancing measures and developed social distancing measures. Purchasing and distributing vaccines. Efforts to vaccinate the population have coincided with additional tax measures aimed at supporting household incomes.

Theoretical Review and Framework

Loanable Fund Theory: In economics, the loanable funds doctrine is a theory of the market interest rate. According to this approach, the interest rate is determined by the demand for and supply of loanable funds. The term loanable funds include all forms of credit, such as loans, bonds, or savings deposits. The loanable funds doctrine was formulated in the 1930s by British economist Dennis Robertson and Swedish economist Bertil Ohlin. However, Ohlin attributed its origin to Swedish economist Knut Wicksell and the so-called Stockholm school, which included economists Erik Lindahl and Gunnar Myrdal. The loanable funds doctrine extends the classical theory, which determined the interest rate solely by savings and investment, in that it adds bank credit. The total amount of credit available in an economy can exceed private saving because the bank system is in a position to create credit out of thin air. Hence, the equilibrium (or market) interest rate is not only influenced by the propensities to save and invest but also by the creation or destruction of fiat money and credit. If the bank system enhances credit, it will at least temporarily diminish the market interest rate below the natural rate. Wicksell had defined the natural rate as that interest rate which is compatible with a stable price level. Credit creation and credit destruction induce changes in the price level and in the level of economic activity. This is referred to as Wicksell's cumulative process. According to Ohlin (op . cit. ,), one cannot say " that the rate of interest equalizes planned savings and planned investment, for it obviously does not do that. How, then, is the height of the interest rate determined? The answer is that the rate of interest is simply the price of credit, and that it is therefore governed by the supply of and demand for credit. The banking system-through its ability to give credit-can influence, and to some extent does affect, the interest level.

Keynes Theory of Economic Recession: The Keynes Theory of economic recession disagreed with the Classical theory on the concept of self-regulatory equilibrium. The focal points of the Keynesian theory are increasing aggregate demand, money supply, planned spending, interest rates regulation, devaluation, increasing government spending stimulus / injection. Keynes stated that "deficiencies in effective demand cause unemployment, inflation and economic recession". Unemployment is not just a short-run voluntary issue as claimed by the classical theory, but a problem caused by ineffective demand and bad economic planning, (Brenner, 2006; Bauer, 2009; UNESAP, 2009; Markard, Raven and Truffer, 2012; Jackson and Victor, 2011). Others are decreasing taxation and stabilization policies in compliance with expansionary monetary policy, (Pells, 2008; Barber, 2009; Onyesiku, 2009 and Frank, 2013).

Wicksell's Over-Investment Theory: Over-investment theory developed by Wicksell is of a non-monetary type. Instead of focusing on monetary factors, it attributes cyclical fluctuations to spurts of investment caused by new innovations introduced by entrepreneurs themselves. The introduction of new innovations or opening of new markets makes some investment projects profitable by either reducing cost or raising demand for the products. The expansion in investment is made possible because of the availability of bank credit at a lower money rate of interest. The expansion in economic activity ceases when investment exceeds saving. Again, it may be noted that there is over-investment because the level of saving is insufficient to finance the desired level of investment. The end of investment expenditure causes the economy to go into recession. However, another set of innovations occurs, and more new markets are found which stimulate investment. Thus, when investment picks up because of new innovations, the economy revives and moves into the expansion phase once again.

Theoretical Base
This study is built on **Loanable Fund Theory:** In economics, the loanable funds doctrine is a theory of the market interest rate. According to this approach, the interest rate is determined by the demand for and supply of loanable funds. The term loanable funds include all forms of credit, such as loans, bonds, or savings deposits. The loanable funds doctrine extends the classical theory, which determined the interest rate solely by savings and investment, in that it adds bank credit. The total amount of credit available in an economy can exceed private saving because the bank system is in a position to create credit out of thin air. Hence, the equilibrium (or market) interest rate is not only influenced by the propensities to save and invest but also by the creation or destruction of fiat money and credit.

Empirical Review
Barua et al (2021) conducted a study on the topic: Covid-19 implications for banks: evidence from an emerging economy. The paper utilizes Bangladesh as a case study of an emerging economy and used the secondary data of only the publicly listed banks due to data availability issues. The paper uses a stress-testing model designed by Bangladesh Bank, which is relatively simpler. Overall, findings show that a 10% NPL shock could force capital adequacy of all banks to go below the minimum BASELINE requirement, while a shock of 13% or more could turn it to zero or negative at the sectoral level. In general, the paper's broad message concluded that

COVID-19 is likely to put financial and capital stress on banks across all economies regardless and recommended innovative policy measures to prevent a large-scale and contagious banking crisis in Bangladesh. The researcher is in agreement with the study of Barua et al (2021) because their finding was in collaboration with the report of Moody's Investors Service Limited in non-performing loans that dropped by 12%. Salawu et al (2020) also conducted a study titled: "Effect of Economic Recession on the Performance of Selected Deposit Money Banks in Nigeria. The study used secondary data from the annual report of the selected Deposit Money Banks between the years 2012 to 2017. The population size for the study was the entire 15 Deposit Money Banks in Nigeria in 2019; Purposive sampling technique was adopted while regression and correlation analyses using E-views 9.0 statistical software packages were used to analyze the data and tested the formulated hypotheses at 5% level of significance. The finding revealed that there is a significant effect between the volume of transactions and deposit growth in Nigeria's deposit money banks, thus recommending that Deposit Money Banks in Nigeria should increase their volume of transactions by going into merger and acquisition or leverage social advertising to target prospects and existing customers on content marketing i.e. products or services valuable to customers. This study is also in agreement with the study of Salawu et al (2020) because their study highlighted a low volume of transaction which was evident during the last economic recession as a result of lockdown of business activities. Fapohunda, (2012), conducted a study on "The Global Economic Recession: Impact and Strategies for Human Resources Management in Nigeria". The study made use of secondary data and, more specifically, it found out that the economic recession has brought in its wake enormous increase in the level of unemployment. The global financial crisis has led to a global unemployment crisis resulting in millions of redundancies. The researcher is not in agreement with the study of Fapohunda, (2012) because his study failed to make use of any data or statistical tool in the entire study. The study should have made use of the simplest type of statistical tool to analyze data.

Dode, (2012), conducted a study on the topic titled: "Nigeria, Mono-Product Economy and The Global Economic Recession: Problems & Prospects". The study used secondary sources of data, while the findings revealed that for too long, Nigeria has depended on the export of oil for more than 90% of its foreign exchange earners. The researcher is also not in agreement with the study of Dode, (2012) because his study did not make use of any statistical tool in the entire study. The study should have considered using a statistical tool for data analyses in order to make his work more complete.

Orabi, Saymeh and Mohammad (2016). The effect of 2008 Financial Crisis on Jordan Banks' Profits (reviewed). The populations used were selected set of Jordanian commercial banks and tests used were correlation coefficient test, and simple regression to analyze this effect. The study results revealed that there was no significant impact of the late global financial crisis on the net income of Jordan banks.

Agri, Mailafia and Umejiaku (2016), also conducted a study on the Impact of Economic Recession on macroeconomic stability and sustainable development in Nigeria. The study used microeconomic variables in two economic models as well as multiple regression analysis

of time series data. The result shows negative impact of these variables on economic growth and sustainable development. The researcher is equally not in agreement with the study of Agri, Mailafia & Umejiaku (2016) because their study failed to be recognized that the ordinary least square (OLS) method stated in the methodology that they intended using in the data analyses was different from the multiple regression they later used.

Onuoha and Nwaiwu (2016), impact of global financial crisis on Nigerian Stock Market. Their population consists of the Nigerian Stock Exchange from which data on the variables were generated. The data generated were analyzed using the regression model and the result shows that global financial crisis measured by currency crisis, credit crisis, liquidity crisis and foreign investment crisis has a negative significance impact on the Nigerian Stock Market. Similarly, this study of Onuoha & Nwaiwu (2016) emphasized the Nigerian Stock Exchange as the dependent variable instead of the performance of Nigerian Stock Exchange.

Dickson and Ezirim, (2017), conducted a study on "The political economy of recession in Nigeria's fourth republic". The study relies heavily on the use of secondary sources, and the data were analyzed qualitatively using the narrative analysis technique. The findings revealed that issues that instigated recession in Nigeria's Fourth Republic are more structural than monetary or fiscal. In this study, the researchers disagreed and believed that E-view should have been an appropriate tool for data analyses because the study made use of secondary data.

Study Gap
Consequently, upon the review of the related studies, several studies (Barua et al, 2021; Orabi et al, 2016); have been conducted in economic recession and banks' operations in the developed countries as against the few studies that have been conducted in the developing countries like Nigeria in the field of economic recession and banks' survival. This study concentrates only on Nigeria's economy and its banking system, not the global banks. This study only focused on banks' liquidity and share capital as proxies to measure survival as against the profitability level because profitability can be manipulated; thus, too much attention on profitability may lead the firm into a pitfall (Ndam, 2021).

Methodology
The study adopted an Ex-post facto research design because it is a past event; regression analysis as well as explanatory variables, and/or descriptive research designs or inferential statistics. More precisely, The Sampling Techniques adopted in this study is a typical case of purposive sampling technique. It was adopted because the researcher studies a phenomenon or trend as it relates to what are considered "typical" or "average" of the affected population which was based on the five Nigeria banks that were seriously affected by economic recession, according to Moody's Investors Service. The model yielded five banks out of the 14 Deposit Money Banks listed on the floor of Nigeria Stock Exchange, whose shares were traded by the Security and Exchange Commission in Nigeria during the period under review, namely-Zenith Bank Plc, Access Bank Plc, and Guaranty Trust Bank, United Bank for Africa and First Bank of Nigeria out. Recession variables such as: interest rate, inflation rate and bank survival variables like liquidity and share capital which were collected from the financial statements of

some selected deposit money banks on Nigerian Stock Exchange, as at the end of each financial year for the period under review. The null hypotheses stated in this study were tested at 5% level of significance using the f-statistic which is derived through E-Views 9.0 statistical software package. This technique of statistic is appropriate because it shows the Mean, Median, Maximum, Minimum, Standard Deviation, Skewness, Kurtosis, Jacque-Bera and Probability of each of the variables.

Result and Discussion
The relationship among the study variables is captured as follows:

Economic recession	-	Interest Rate	(INT)
		Inflation Rate	(INF)
Banks' Survival	-	Liquidity	(LQ)
		Share Capital	(SHC)

Models:
Hypothesis 1:

$$LQ_i = \alpha_0 + \beta_1 (INT_{ti}) + \beta_2 (INF_{ti}) + e_i$$

Hypothesis 2:

$$SHC_i = \alpha_0 + \beta_1 (INT_{ti}) + \beta_2 (INF_{ti}) + e_i$$

Where α = Intercept

β_1 & β_2 are coefficient of the independent variables

e_i – Error Term, Stochastic Variable.

Data Presentation
Table 1: Data Presentation

Obs	INF	INT	LQ	SHC
2015Q1	15.79363	18.12021	863336.3	259719.1
2015Q2	15.71618	18.05213	876143.4	259337.1
2015Q3	15.56127	17.91596	901757.5	258573
2015Q4	15.32892	17.71171	940178.8	257426.8
2016Q1	15.0191	17.43937	991407.2	255898.7
2016Q2	14.28754	17.25869	1065959	255100.3
2016Q3	13.13422	17.16966	1163835	255031.8
2016Q4	11.55914	17.17228	1285035	255693.2
2017Q1	9.562307	17.26655	1429558	257084.3
2017Q2	8.698651	17.17364	1547644	257735.5
2017Q3	8.968172	16.89354	1639293	257646.6
2017Q4	10.37087	16.42627	1704505	256817.6
2018Q1	12.90674	15.77181	1743280	255248.7
2018Q2	14.8784	15.25731	1801168	254246.4
2018Q3	16.28583	14.88275	1878169	253810.9
2018Q4	17.12903	14.64814	1974283	253942
2019Q1	17.40802	14.55347	2089510	254639.8
2019Q2	17.3324	14.41422	2155049	255115.8
2019Q3	16.90219	14.23037	2170902	255370
2019Q4	16.11739	14.00193	2137067	255402.3
2020Q1	14.97798	13.7289	2053546	255212.8
2020Q2	14.12343	13.52413	1990904	255070.7
2020Q3	13.55372	13.38761	1949143	254975.9
2020Q4	13.26887	13.31936	1928263	254928.6

Source: CBN Statistical Bulletin, 2015- 2020

Data Analysis
This study showed the empirical analysis by first providing the descriptive statistics of the variables under study.

Descriptive Statistics
The descriptive statistics of each of the variables presented below as derived through E-Views 9.0, shows the Mean, Median, Maximum, Minimum, Standard Deviation, Skewness, Kurtosis, Jacque-Bera and Probability:

Table 2: Descriptive Statistics

	INF	INT	LQ	SHC
Mean	14.12017	15.84667	1594997.	256001.2
Median	14.92819	16.09904	1723893.	255309.3
Maximum	17.40802	18.12021	2170902.	259719.1
Minimum	8.698651	13.31936	863336.3	253810.9
Std. Dev.	2.624706	1.691563	466575.5	1652.078
Skewness	-0.768664	-0.143089	-0.385731	0.845895
Kurtosis	2.552184	1.445624	1.632239	2.687239
Jarque-Bera	2.563916	2.497981	2.465924	2.959970
Probability	0.277493	0.286794	0.291428	0.227641
Sum	338.8840	380.3200	38279936	6144028.
Sum Sq. Dev.	158.4489	65.81189	5.01E+12	62775298
Observations	24	24	24	24

Source: Author's own computation using E-Views Software, Version 9.0 (2021)

From table 2 all variables consist of twenty-four (24) observations. The table clearly shows the descriptive statistics of the variables indicating their mean, variance, and distribution. All the variables are normally distributed as shown by the Jarque-Bera statistics with its probability value higher than 0.05 (5% level of significance) for all the variables.

Trend Analysis
Graphically, the trend analysis showed that the variables fluctuated at one point or the other during the period under review. This was attributed to the effects of government policy and economic conditions that would have had attendant effects on some of the variables. These are presented graphically below:
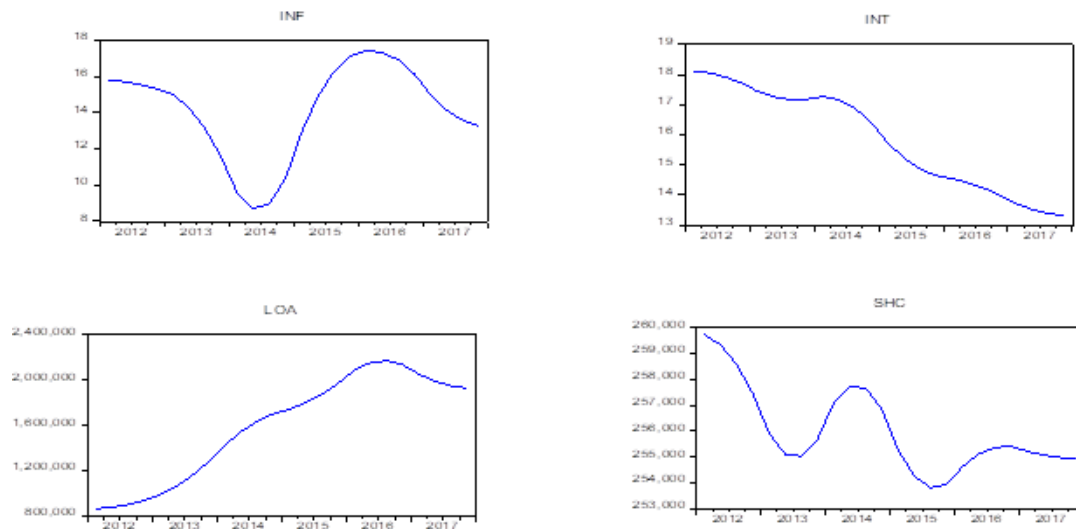
Test of Hypotheses

However, to explicitly substantiate the analysis given above so far, the regression result or output obtained using E-View 9.0 software is presented below:

Model 1

Table 3: Dependent Variable: LQ

Independent Variables	Coefficient	Standard Error	t-Statistic	Pr Value
C	6188385.	496131.9	12.47327	0.0000
INF	-26801.34	15423.55	-1.737689	0.0969
INT	-265983.3	23931.88	-11.11418	0.0000
R^2	0.858486	F Statistic	63.69742	(00000)
Adjusted R^2	0.845008	D-W Statistic	2.181909	

Source: Author's Computation using E-view 9.0 (2021)

Form the regression result, the following interpretation can be inferred;
One percent (1%) change in Inflation Rate (INF) on the average holding other independent variables constant will lead to a 2% change in Liquidity. However, this effect is statistically insignificant due to the high probability value of the parameter of 0.0969, which is higher than 0.05 (that is 5% level of significance).

One percent (1%) change in Interest Rate on the average holding other independent variables constant will lead to a 2% change in Liquidity. However, this effect is statistically significant due to the low probability value of the parameter of 0.0000 which is lower than 0.05 (that is 5% level of significance).

This shows that about 85% of variations in the dependent variable (liquidity) were explained by changes in the explanatory variables of the estimated model therefore the estimated model exhibits good fit. It further shows that 2% of the fluctuations in liquidity are caused by a random disturbance or exogenous variables outside the regression. Therefore, R2 is significant.

The high value of the f-statistics (i.e. Fc = 63.69742) indicates that the parameters of the estimated model are jointly a simultaneously statistically significant. This implies that the estimated model is good for forecasting, predicting policy formulated and analysis purposes. Given that the F- statistics probability is given as 0.0000000 which is less than 0.05 (5% level of significance) and as such, the f -statistics are highly significant. This implies that we reject the null hypothesis that all the parameters are insignificant (are zero) and accept our alternative hypothesis that all the parameters are significant (different from zero).

Model 2
Table 4: Dependent Variable: SHC

Independent Variables	Coefficient	Standard Error	t-Statistic
C	245532.5	3208.654	76.52194
INF	-33.90044	99.74939	-0.339856
INT	690.8317	154.7756	4.463441
R^2	0.527903	F Statistic	11.74118
Adjusted R^2	0.482941	D-W Statistic	2.209054

Source: Author's Computation using E-view 9.0 (2021)

Form the regression result the following interpretation can be inferred;
One percent (1%) change in Inflation Rate (INF) on the average holding other independent variables constant will lead to a 33% change in Share Capital. However, this effect is statistically significant due to the low probability value of the parameter of 0.0000 which is lower than 0.05 (that is 5% level of significance).

One percent (1%) change in Interest Rate on the average holding other independent variables constant will lead to a 690% change in Share Capital. However, this effect is statistically significant due to the low probability value of the parameter of 0.0000, which is lower than 0.05 (that is a 5% level of significance).

This shows that about 52% of variations in the dependent variable (Share capital) were explained by changes in the explanatory variables of the estimated model, therefore the estimated model exhibits good fit. It further shows that 2% of the fluctuations in share capital are caused by a random disturbance or exogenous variables outside the regression. Therefore, R2 is significant.

The high value of the f-statistics (i.e. Fc = 11.74118) indicates that the parameters of the estimated model are jointly a simultaneously statistically significant. This implies that the estimated model is good for forecasting, predicting policy formulated and analysis purposes. Given that the F-statistics probability is given as 0.0000000 which is less than 0.05 (5% level of significance) and as such, the f-statistics is highly significant. This implies that we reject the null hypothesis that all the parameters are insignificant (are zero) and accept our alternative hypothesis that all the parameters are significant (different from zero).

Major Findings
H_{01}: The interest rate had no significant effect on liquidity of deposit money banks in Nigeria.

From model, the probability value of interest rate is 0.0000, which is lower than 0.05 (5% level of significance). This implies that interest rate is statistically significant, thus we reject the null hypothesis.

H$_{02}$:   Inflation rate had no significant effect on share capital of deposit money bank Nigeria.

From model, the probability value of inflation rate is 0.0000, which is lower than 0.05 (5% level of significance). This implies that inflation rate (INF) is statistically significant, thus we reject the null hypothesis.

Discussion of Findings
From the outcome of the data analysis, it is obvious that the economic recession (resulting from high interest rate and high inflation rate) had significant negative effect on the survival (liquidity and share capital) of Deposit Money Banks in Nigeria. The data from the annual financial statement of the banks and the performance of Deposit Money Banks in Nigeria during the recession have reviewed the economic recession activities and banks' survival-liquidity and share capital in Deposit Money Banks in Nigeria. The tested hypotheses showed that there is a negative significant relationship between the independent variables (economic recession) and the dependent variables (banks' survival) and these findings are in tandem with the findings of Barua et al (2021), Salawu et al (2020), Fapohunda, (2012), Dode, (2012), Agri et al (2016) Onuoha et al (2016), Dickson et al, (2017), but was not in collaboration with the findings of Orabi et al (2016), who found no statistical significant impact of the late global financial crisis on the net income of Jordan banks. The study is also in conformity with the loanable fund's theory. In economics, the loanable funds doctrine is a theory of the market interest rate. According to this approach, the interest rate is determined by the demand for and supply of loanable funds. The term loanable funds include all forms of credit, such as loans, bonds, or savings deposits. The loanable funds doctrine extends the classical theory, which determined the interest rate solely by savings and investment, in that it adds bank credit.

Conclusions
From the findings above, economic recessions before and during the Covid-19 Era had a significant effect on the survival of selected deposit money banks in Nigeria. The economic recession was caused by both internal and external factors in Nigeria. The internal factor is because of the mono-economic system of Nigeria's economy, while the Covid-19 Pandemic that caused the global financial crisis that rocked the world from 2019 is the external factor. The study found out that interest charges significantly affected banks liquidity (loans) in Deposit Money Banks in Nigeria during the recession. The interest charges by banks during the Covid-19 recession were very high, so this discouraged individuals or corporate organizations from taking loans from Deposit Money Banks. In most cases, this resulted in non-performing loans in the banking sector because of the fact that not every loan given was paid for at stipulated time during the Covid-19 due to the bad economic system. Finally, the study also revealed statistically that inflation rate had a significant effect on the share capital of

Deposit Money Banks in Nigeria during recession. This is because a unit change in the inflation rate leads to a decrease in share capital because whenever there is an increase in prices of goods and services, the marginal propensity to consume (MPC) will rise as against the marginal propensity to save (MPS). As a result of high inflation rate during Covid-19 recession, most people no longer buy shares of banks from stock exchange because of the limited money in circulation. Thus, the little money available was used for consumption purposes.

Recommendations
Based on the objectives and the findings of the study, the following recommendations are made:
The Central Bank of Nigeria in collaboration with Deposit Money Banks should coax interest rate on banks liquidity downward in the areas of loans to stimulate the economy whenever there is Covid-19 pandemic. If done, it will encourage people or corporate bodies to take loans for business activities / investment in case of lockdown, which in turn could help to boost the economy during the recession and possibly increase banks' liquidity during repayment and other assets that banks have available in order to quickly pay bills and meet its business and other financial obligations for its survival. For the survival of banks' share capital in the Nigerian stock exchange whenever there is inflation and recession during the Covi9 pandemic, the central bank of Nigeria should introduce expansionary fiscal policy that will increase the level of aggregate demand, either through increases in government spending or through reduction in taxes. Expansionary fiscal policy is most appropriate when an economy is in recession and producing below its potential GDP.

Contributions to Knowledge
The study has added to the knowledge of government, policy makers, academics, school(s), depositors and other researchers to further research in the area of economic recession in order to pursue stimulus policies that work while acting as effective indicators to the banks in order to check the soundness of its financial activities of an economic system. The study has shown that the last 2020-2021 recession in Nigeria during the COVID-19 Era, affected the survival rate of Deposit Money Banks-liquidity and share capital in this country. Furthermore, the researcher, with respect to this paper, has given a different definition to the concept of economic recession (as a situation whereby the GDP of a country is declining concurrently with the increase in the prices of goods and services, as a result of downturn in the economic activities of a nation, on a six-month stretch consecutively) and banks' survival as the ability to be on a going concern and efficiently utilizes assets to meet up with other obligations for banks sustainability and continuity.

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