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DETERMINANTS OF CORPORATE FAILURE IN NIGERIA: AN EXAMINATION OF MICROFINANCE BANKS USING A PRAGMATIC APPROACH

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ABSTRACT

Microfinance banks in Nigeria were created in 2005 to provide credit facilities to the economically active rural dwellers, low-income earners and so on. However, some few years after their creation, some of them started experiencing corporate failure which consequently resulted to some been closed down and their licenses revoked by the central bank of Nigeria (CBN). The objective of the research is to establish whether or not inadequate capital, poor asset quality, management inefficiency, poor earnings ability and illiquidity are determinants of Microfinance banks failure in Nigeria. This study is aligned with the pragmatic paradigm or mixed approach philosophy. In this regard the research combines the constructivism and post positivism philosophies. The mixed design adopted is exploratory sequential and the research method is interpretive and post action cross sectional case study. The research used both primary and secondary sources of data, semi structured interview and ratios were the technique used for data collection and extraction. Explicitation, panel logit and corrected standard error multiple regressions were employed as the techniques of analysis. The finding on inadequate capital was significant at <5%. The study concludes that inadequate capital is significantly a determinant of failure of microfinance banks in Nigerian. This implies that the CBN policy on mandating microfinance banks to shore up their capital base by meeting their peculiar capital requirement by April 2021 and April 2022 is adequate and in the right direction. The study strongly recommends that CBN should sanction banks that could not meet the deadline of April 2021 and April 2022 on minimum capital requirement as this will make banks have adequate capital.

Keywords: Corporate Failure, Inadequate Capital, Management inefficiency

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1. INTRODUCTION

In the business world failure is what is watch out for, especially microfinance banks that are created to support unemployed youths, women, and small businesses. In Nigeria, microfinance banks were created in 2005 to strategically support economic activities of the rural dwellers and to some extent they were seen to enhance job creation (Garba, 2019). Additionally, Johnny and Ayunku, (2019) cited Enyia and Inyang, (2018) to elucidate that microfinance banks account for over 90% licensed business ventures and 80% service creation in Nigeria. However, some of these banks started experiencing corporate failure; this defeated the purpose of their creation as their core mandates could not be delivered (Okezie, 2019; CBN, 2018; Udoh, 2012). Johnny and Ayunku, (2019) Lawan, Falchrul and Mohammed (2015) documented that under capitilisation or inadequate capital was a cause of microfinance failure.

Again, Diete-Spiff, (2015) showed that the nonexistence of sustainable strategies on credit control by directors of microfinance bank creates assets low asset quality, this also attracted failure. Also, management inefficiency is also known as another cause of corporate failure of microfinance banks. Oloruntoba, Olabamiji, and Kunle, (2018); Ailemen, Taiwo and Areghan, (2016) revealed that microfinance banks operate on high cost, enormous loan losses and overtrading in non-yielding activities. Earnings ability of some of these banks is also considered to be very poor and a cause of failure to these banks. These banks also lack the talent to generate income from innovative bank services, which is coupled with the diversion of funds meant for attracting loan interest by directors (Oloruntoba, Olabamiji, & Kunle, 2018; Ailemen, Taiwo & Areghan, 2016) affected their ability to earn.

Additionally, Illiquidity is another cause of microfinance bank failure Odetayo, (2016); high interest rate that attracts defaulting payment Olowe Moradeyo and Babalola (2013) including irrecoverable overdrafts are some of the factors that influenced their inability to sustain liquidity for working capital management. CBN as a regulator did not relent in issuing codes to govern the affairs of microfinance banks, specifically in response to their capital base and governance procedures, these banks were required to shore up their Capital base initially from 20 million Naira to 80 million Naira in year 2010 and then to 100 million intermittently, especially in years 2015, 2017 and 2019 (CBN, 2015, 2017 and 2019). Also, the CBN classified the banks into Local, regional (State wide) and National types. Subsequently they were directed to increase their shareholders funds from ₦100m to ₦200m, ₦500m, ₦1b and ₦2b as is applicable to each microfinance banks whether it is unit, local,

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statewide or National in size. Despite all the measures by CBN and the NDIC the corporate failure rate of MFBs in Nigeria continue to rise. In 2019, the CBN closed an additional 103 microfinance banks, 38 in Lagos, 7 each in Rivers and Anambra, 6 in Imo, 5 in Ogun, 4 each in Abia, Edo, Delta and Oyo, 2 each in Plateau, Taraba, Osun, Kaduna, Bayelsa, Kebbi, and Akwaibom, 1 each in Kogi, Jigawa, Enugu, Cross-River, Katsina, Adamawa, Sokoto, Ondo, Kwara and Niger.

Prior studies, such as Oloruntoba, Olabamiji and Kunle, (2018); Wachukwu , Onyema and Amadi (2018);Shetima, and Dzolkarnaini (2017); Uchenna, Adedayo, Ahmed, and Isibor (2016); Odetayo, (2016); Boateng, Boateng and Bampoe (2015); Diete-Spiff (2015); Paul, Ebelechukwu and Yakubu, (2015); Obasi, Chukwuka, and Akwawa, (2014) focused on capital structure on performance, financial inclusiveness, economic growth, board characteristics on financial sustainability and performance, poverty reduction and alleviation, strategic management for directors, empowerment, small and medium enterprises support and expansion. Examining specifically the determinants of corporate failure among microfinance banks is not addressed. This study has identified this gap.

Secondly, studies of Yuksel, Dincer and Hacioglu (2015); Kenneth and Adeniyi (2014); Kamaruddin, and Mohd, (2013); Adesina (2012); Mishra & Aspal (2012); Williams (2011); Rai (2010); Dzeawuni and Tanko (2008) used CAMEL rating as a comparative measure to evaluate banks or compare banking activities. While the studies of Kandel, (2019); Getahun (2015); Echekoba, Egbunike and Ezu (2014); Owusu (2012) used CAMEL as a determinant for financial performance not corporate failure. This study differently uses CAMEL as determinants of corporate failure of microfinance banks in Nigeria; this is to the best of the researchers' knowledge. The study also used multi discriminant analysis MDA to measure corporate failure among microfinance banks in Nigeria. This makes the study among the first studies to combine and examine the CAMEL model and MDA model on microfinance banks in Nigeria.

Fourthly, the literature has shown that studies on related issue like that of Pitera, (2018); Liu, and Wang, (2016); Alostaz, (2015); Danilov, (2014); Bhandari, and Iyer, (2013); Mazouz, Crane, and Gambre, (2012); Amendola, Bisogno, Restaino, & Sensini, (2011); Dikmen, Birgonul, Ozorhon, and Sapci, (2010); Vuran, (2009); Purnanandam, (2008); Adnan, and Dar, (2006); Charitou, Neophytou, and Charalambous, (2004); Altman, (1984); Altman, (1970) Beaver, (1966) did not really propose a generally accepted corporate failure theory. However, Veganzones, and Severin, (2019) advise that from the concept of financial distress and the

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structural inertia theory significant theoretical value can be derived because distress is an ongoing process that allows corporations to experience diverse state or conditions.

This study used the Structural Inertia Theory of Hannan and Freeman, (1984) to underpin the variables of the CAMEL model with the MDA model of Altman, (2006). This makes the study the first to have a model built up to validate the inertia theory for corporate failure in the finance literature of Nigerian banks. In line with these identified gaps, the following questions are raised and addressed: Does inadequate capital cause corporate failure? Does poor asset quality cause corporate failure? Can management inefficiency result to corporate failure? Does poor earning ability result to corporate failure? Can illiquidity cause corporate failure?

Based on these questions the objective of the research is to establish whether or not inadequate capital, poor asset quality, management inefficiency, poor earnings ability and illiquidity are determinants of corporate failure. Significance of this study lays in the fact that, management of microfinance banks will benefit from the recommendations of this study on the policy to adopt and strategy to employ on earning ability, asset quality, management efficiency and liquidity management. Regulators like the CBN and NDIC will find the findings of this study as empirical proof that back their policy hard work on repositioning microfinance banks to reduce failure rate.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This section presents a systematic review of the literature by reviewing studies that either used primary or secondary sources of data so that hypotheses are formulated and tested to address the research questions raised. The section presents the conceptual and empirical reviews and theoretical frame work of the study.

2.1 Conceptual and Empirical Framework: This study presents the operational definition of the concepts followed by reviewed studies:

2.1.1 Corporate Failure: It is seen as business failure, insolvency and corporate distress (Khan, Bhavana & Raj, 2020; Kazemian, Shauri, Sanusi, Kamaluddin, & Shuhidan 2017). This study defines corporate failure as the absence of sustainable strategic managerial policies that guides against eroding of capital, liquidity, decrease in asset quality and earnings ability tied with increased cost of governance and debt financing that lacks a professionally trained, experience and committed supervision.

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2.1.2 Capital Adequacy: It is defined as the survival of sudden losses, commotions, turbulence in the course of operations (Olarewaju, & Akande, 2016; Sangmi & Nazir, 2010). Lotto (2018) defines it as depository risk which is derived from the sudden and coordinated large scale withdrawal of deposit by the bank clients. This research defines it as the procedures or strategies put in place to sustain bank's capital, attract increased inflows and minimize outflows to allow for the surviving of sudden changes that can affect inflows of cash.

Except for Aliela and Miroga (2019) that used primary data, the following studies Lotto, (2018); Aliero and Ache (2017); Umoru, and Osemwegie (2016); Obeten and Ocheni (2014); Olalekan and Adeyinka (2013) examined these periods respectively 2009 to 2015; 1970 to 2003; 2007-2015; 1980 to 2007; 2006 to 2010 by using secondary sources of data and regression, logit, ARD as a techniques of analysis to show that inadequate capital leads to operational inefficiency, lack of profitability of banks, which results in corporate failure. These studies used a single paradigm approach to establish their findings which is not sufficient. The current study relied on both qualitative and quantitative paradigms to present adequate findings. This study hypothesizes in the null and alternative forms that:

H_{01}: Inadequate capital ICA is not significantly a determinant of corporate failure of microfinance banks in Nigerian.

H_{A1}: Inadequate capital ICA is significantly a determinant of corporate failure of microfinance banks in Nigerian.

2.1.3 Asset Quality: It is **comprehended** as the credit risk management that **attracts continuous** cash inflows (Munangi, & Sibindi, 2020), it is also the appropriate timeliness with which customers repay the loans (Alhassan, Kyereboah-Coleman & Andoh, 2014). It is defined as the flow of interest on bank's loan (Love, Matthews, Simpson, Hill, & Olatunji, 2014). **The study defines asset quality as the control of credit to mitigate risk towards attracting and sustaining cash inflows.**

2.1.3.1 Asset Quality and Corporate Failure

The studies of Munangi and Sibindi (2020); Folajimi and Dare (2020); Sporta (2018); Alhassan, Kyereboah-Coleman and Andoh (2014) identified these periods 2008 to 2018; 2006 to 2018; 2005 to 2015; 2005 to 2010 respectively by using secondary sources of data and OLS, GLS as techniques of data analysis to evidence that nonperforming loans, loan loss provision, poor asset management, loan growth and credit risk affects bank performance by reducing their asset quality which can

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lead to failure. Where these studies used only secondary sources of data on a single model to examine failure, this study used 2 models and paradigms to establish better findings. This research hypothesizes in the null and alternative form that:

H_{02}: Asset quality **AQ** is not significantly a determinant of corporate failure of microfinance banks in Nigerian

H_{A2}: Poor Asset quality **AQ** is significantly a determinant of corporate failure of microfinance banks in Nigerian

2.1.4 Management Efficiency: it is defined as the capacity to respond adequately to financial stress (Aspal, & Nazneen, 2014). It can also be seen as management's capability to point out, measure, look after and control risks of the institution's daily activities (Purohit, & Mazumdar, (2003). The ability to manage banking operations well without waste of resources and time is defined as management efficiency by this study.

2.1.4.1 Management Efficiency and Corporate Failure

Except for the studies of Oloruntoba, Olabamiji and Kunle (2018) and Odetayo (2016) that used primary source of data, Ayunku and Uzochukwu (2020); Shetima and Dzolkarnaini (2017); Uchenna, Adedayo, Ahmed and Isibor (2016); Paul, Ebelechukwu and Yakubu (2015) had the following respective periods 2007 to 2019; 2010 to 2013; 2011 to 2015; 2011 to 2013 relied on secondary sources of data and GLS, OLS as techniques of data analysis to establish that management inefficiency relates significantly to high operational cost, deviation from loan agreement, diversion of funds, inadequate board size, lack of independent and diverse board that results to failure of banks. These studies used different periods with different philosophies to address their research questions. The current study combines qualitative and quantitative paradigm within a single period to establish sufficient findings. This study hypothesizes in the null and alternative form that:

H_{03}: Management inefficiency **MIE** is not significantly a determinant of corporate failure of microfinance banks in Nigerian

H_{A3}: Management inefficiency **MIE** is significantly a determinant of corporate failure of microfinance banks in Nigerian

2.1.5 Earnings Ability: It is seen as Bank's income growth that is stable to attract valuation allowances, net margins, net worth level, and the quality of existing assets (Manukaji, 2018; Tunji, Ifeanyi, Chibuzo, & Adeleye, 2019). It is defined as the

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only determinant of a bank's ability to absorb future loans and building an adequate capital base (Kandel, 2019). The research defines it as the capability of a bank to generate and sustain income growth that can absorb losses and attract profitable investment ventures.

2.1.5.1 Earnings Ability and Corporate Failure

Except for the study of Garba (2019) who used primary source of data, Sanni, Salami and Uthman (2020); Ado, Rashid, Mustapha and Ademola (2020); Ogundipe, Akintola and Olaoye (2020); Obeten and Ocheni (2014) examined these periods 2012 to 2018, 2010 to 2018; 2010 to 2015; 1980 to 2007 respectively and employed secondary sources of data and GMM, OLS as techniques of data analysis to document that poor earnings ability relates significantly to impaired loan that does not increase income, reduced financial performance, high interest rate that decreases loan rate payment, poor asset base and poor savings mobilization which leads to failure of banks. Unlike these studies, the current study used a combined approach panel logit and corrected standard error regression techniques to establish its findings. This research hypothesizes in the null and alternative form that:

H_{04}: Earning ability **EA** is not significantly a determinant of corporate failure of microfinance banks in Nigerian

H_{A4}: Poor earning ability **EA** is significantly a determinant of corporate failure of microfinance banks in Nigerian

2.1.6 Liquidity: It is defined as the bank's ability to meet its customer withdrawal demand and cash flow requirements Rudolf (2009). It is also the competency of a bank to discharge its responsibilities against depositors (Gathecha, 2016). It is defined as the increase in bank's assets and decrease in its liabilities or any operating losses (Baimwera, & Muriuki, 2014). This study defines liquidity as a bank's ability to retire expected and unpredictable cash requirements.

2.1.6.1 Liquidity and Corporate Failure

The studies of Edewusi, Adeleke and Adekanmbi (2020); Yunusa, Oyindamola and Orshi (2019); Obeten and Ocheni (2014) had the following respective study periods 2013 to 2017; 2007 to 2017; 1980 to 2007. They relied on secondary sources of data and OLS, GLS as techniques of data analysis to show that illiquidity relates significantly to low working capital, poor liquidity risk management and operational performance poor and going concern which leads to bank failure. These studies either used the quantitative or the qualitative approach to establish their findings,

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this study differently used a mixed approach to establish adequate findings. This study hypothesizes in the null and alternative form that:

H_{05}: illiquidity **ILL** is not significantly a determinant of corporate failure of microfinance banks in Nigerian

H_{A5}: illiquidity **ILL** is significantly a determinant of corporate failure of microfinance banks in Nigerian

2.2 Theoretical Framework and Model Build up

This section presents the 5 theories (inertia, buffer, loan pricing, situational and credit risk theories) used to underpin the variables of the study and building the mathematical model in section 3. These theories are selected because they show that avoiding corporate failure of microfinance banks depends on buffer, loan pricing, credit risk and situational management approaches. The structural inertia theory propounded by Hannan and Freeman (1984) is used to underpin corporate failure. Structural inertia refers to the predisposition of organizations to maintain the status quo or to repel deviating from existing structural schemes by reliably producing cooperative action to replicate structure with high fidelity, which prevents or averts failure. The model buildup is premised on the structural inertia theory that generally links corporate failure to CAMEL. Corporate failure is theorise to be a function of capital adequacy mathematically as $CF = f(CA)$ ----------*(i)* The buffer theory is used to underpin them, buffer means having surplus or reserve capital above the minimum requirement set by regulator Berger, Herring and Szegö (1995).

The loan pricing theory is used to underpin corporate failure with asset quality and earnings ability, this is mathematically presented as $CF = f(AQ) + (EA)$ ----------*(ii).* Stiglitz and Wiess (1981) propounded that loan pricing by banks should ensure setting loan interest in tandem with the risk of default in loan repayment. Setting low interest will attract loan payment that increases interest income as good asset quality and earning ability of a bank.

The situational theory argues that the most effective management is one that is not always complacent and is sensitive to some set of circumstances at any particular point in time (Carlisle, 1973). The situational theory is used to theorise corporate failure as a function of management efficiency, mathematically as $CF = f(ME)$ ---------- *(iii).* The credit risk theory proposed by Merton (1974) explains that the inability of a firm to adequately manage their credit risk exposes

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such firm to the likelihood of failing. The credit risk theory is used to theorise corporate failure as a function of liquidity, mathematically as *CF= f (LQ)* ---------- *(iv).*

3. METHODOLOGY

3.1 Research Design:

This study is aligned with the pragmatic paradigm or mixed approach philosophy. In this regard the research combines the constructivism (primary data research) and post positivism (secondary data research) philosophies. This is because the research questions raised have both qualitative and quantitative undertone that requires an appropriate and adequate paradigm like the pragmatic philosophy to address the questions. The study relied on an exploratory sequential mixed design, because it initially collected primary data, made analysis and then extracted secondary data and made analysis.

3.2 Research method:

The study used an interpretive and post action cross sectional case study as its research method. This is because the study directed questions at experienced respondents and written sources in order to understand why some microfinance banks experienced failure, also the research examined past actions of the operators of different microfinance banks from their annual reports and accounts.

3.3 Research Sample:

For a mixed paradigm research 2 samples are envisaged, one for the qualitative collection of data and the second for the quantitative extraction of data. The qualitative sample is a sampled population of 10 experienced respondents that accepted semi structured phone interview. They were identified from failed banks (Lagos 2, Bauchi 1, Kano 2, Abuja 1, Kogi 2, Kebbi 1, Adamawa 1). The interviewees agreed to the disclosure of their responses except personal names and that of their banks. The CBN lists of closed microfinance banks on NDIC website aided the identification of the locations of the interviewees by the help of research assistants.

3.3.1 Sampling Techniques: The population of key staff of failed microfinance banks is unknown. This influenced the choice of using a nonprobability sampling technique as not all the staff will be interviewed. This is why the researchers specifically selected the purposive nonprobability sampling (Jankowicz, 2005)

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because respondents with the relevant information are key to explaining the issues examined. The research selected the key informant technique (Tremblay, 1982) which is one of the techniques of purposive sampling because staffs with the knowledge about microfinance banking operations and practices were interviewed. The sample of 10 was used to collect the primary data, because Boyd, (2001) and Creswell, (1998) recommends 2 to 10 participants as satisfactory for a qualitative study that examines issues and for the attainment of saturation.

Secondly, for the quantitative sample, the population of microfinance bank is known, and involves 876 (1 listed and 875 unlisted) microfinance banks (CBN, 2021). Because the population is countable and known, this influenced the selection of the Smith (1983) formula to determine the sample size, $n = 1 + N (b)^2$ where n is sample, N is the population, b is error of margin. This study settled for a 0.232% margin of error due to the fact that quite a number of microfinance banks have been closed down hence, the sample is $1+ 876 (0.232)^2 = 876 \times 0.053824 = 47.149824 = 1 + 47.149824 = 48.149824$. The sample size for extracting secondary data is 48 banks for the study period of 10 years 2011-2020, the choice of the period is influenced by the reforms, withdrawal of licenses and closure experienced by microfinance banks.

3.4 Data sources and Techniques of Collection:

The study uses both primary and secondary sources of data. Semi structured interview is the technique of data collection used to collect the primary data from interviewees in 2021 while ratio was the technique used to extract data from the financial statements of 48 microfinance banks that made the sample for the period 2011 to 2020. The choice of using primary and secondary sources is because as mentioned earlier the research questions addressed carried both qualitative and quantitative undertone.

3.5 Techniques of Data Analysis:

For the primary data, explicitation was used as the technique of analysis using 5 stages; (i) critical review of the whole answers to the research questions. The researchers captured every response including information not relevant in the first transcription (ii) Delineate the review (Moustakas, 1994, Creswell, 1998) to capture the most relevant answers to the question. The first transcription was reduced to the second transcription that includes only relevant information (iii) Group answers into separate themes (Hycner, 1999; King, 1994). A third transcription was created from the second by recognizing the main issues as individual themes (iv)Summarise each

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theme into a full context with a heading. The fourth transcription was made into a summary of the third by the researchers (v) Use tables to present findings showing distinct and common themes of informants Groenewald, and Schurink, (2003). Tables 2-4 are created from the fourth transcription to show the findings.

For the secondary data, the parametric panel logit and corrected standard error multiple regressions were employed as the techniques of analysis using STATA. The choice of these techniques is based on the fact that, the first model has a dependent variable that is dichotomous that is why panel logit regression was used to analyse it and the second model has 5 independent variables that were serially correlated that is the panel corrected standard error regression was used to analyse it. Secondly, PCSE is used as a technique because the data is a cross sectional time series and the technique can allow for a better inference of the mathematical model we built, it is robust to unit heteroskedasticity and considers possible correlations that are contemporaneous and can account for deviations in spherical errors.

3.6 Model Specification and Variable Measurement:

It is important to note here that the constructivism paradigm examine issues not variables. In this regard, it is only the post positivism paradigm that models are specified and variables measured. The study is a 2 step regression because it has 2 models used to analyse the secondary data extracted. To analyse the first model, this study adopts Gujarati and Porter (2009); Gujarati (1995); Ohslan (1980) and Martin (1977) multiple regression logit model which encompasses the Altman's model (liquidity, profitability, leverage and solvency ratios) of predicting failed and non-failed firms as the first model.

Specifically, Gujarati & Porter, (2009) criteria that holds that since the logit model provides a score between 0 and 1, if the predicted probability > 0.5, classify the observation as failed, but if the probabilistic score < 0.5, the observation is classified as non-failed is adopted. The absolute residual of the model are used to measure corporate failure CF which is the dependent variable of this study and the model is presented below:

$$P_i\, E(y = 1/X1_{i,}\, X2_i, X3_i, X4_i) = \frac{1}{1 + e^{-zi}}$$

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Where:

P_i= Probability of failure for firm $_I$ Y = 1 failed company

E(Y) = cumulative probability function that take value between 0 and 1

e = exponent and

$Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu_i$ ……(i)

Where:

β_0 = Constant

β_1-β_4 = Coefficients of parameters

X1 = working capital/total assets;

X2 = retained earnings/total assets;

X3 = earnings before interest and taxes/total assets;

X4 = equity value/ total debt

μ = error term = discriminant residuals = corporate failure CF = DV for second model

The second model is the combinations of earlier identified models build up in section two which is underpinned by the structural inertia, buffer, loan pricing, situational and credit theories. Below is the multiple regression model (see section 2.2 theoretical framework and model built up):

$CF_{it}= \beta_0 + \beta_1 ICA_{it} + \beta_2 AQ_{it} + \beta_3 MIE_{it} + \beta_4 EA_{it} + \beta_5 ILL_{it} + \beta_6 FS_{it} + \mu_{it}$
……..…….. (ii)

Where:

CF = Corporate Failure
β_0 = Constant
$\beta_1 - \beta_6$ = Coefficient of the parameters
ICA = Inadequate capital Adequacy
AQ = asset Quality
MIE = management Inefficiency
EA = earnings Ability

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ILL = liquidity
FS = firm Size (Control variable)
μ = error term
i = firm
t = time

Table 1 *Variable Measurement and Sources*

Acronym	Variables	Measurement and Sources
CF	Dependent	Absolute values of Discriminant Residuals (Altman, 2006)
ICA	Independent	Capital/**Total** Assets Kamaruddin, & Mohd, 2013)
AQ	Independent	**Total** Loan/ **Total** Assets (Kamaruddin, & Mohd, 2013)
MIE	Independent	Operating Expenses/ **Total** Assets (Kamaruddin, & Mohd, 2013)
EA	Independent	Net Income/ **Total** Assets (Kamaruddin, & Mohd, 2013)
ILL	Independent	Liquidity **a**ssets/ **Total** Assets **(Kamaruddin, & Mohd, 2013)**
FS	Control	Natural Logarithm of Total Assets (Bala & Ibrahim, 2014)

4. RESULTS AND DISCUSSION

This section presents the results and discussion. Firstly, the primary source of data results are presented in Tables 2 – 4 and then the secondary sources of data results in Table 5 followed by an integration discussion of both the qualitative and quantitative findings leading to addressing the research questions and hypotheses testing.

Table 2 shows the interviewees number, working experience and qualification of the key informants. This table contains only the information the respondents wish to be disclosed (see section 3.3).

Table 2: *Key informants work experience and qualification*

Interviewees	Position	Experience	Qualification
One	Loan recovery officer	7 years	BSc
Two	Finance officer	8 years	BSc
Three	Marketing officer	9 years	BSc

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Four	Board Member	11 years	BSc
Five	Credit officer	10 years	HND
Six	Manager	12 years	BSc
Seven	Operations officer	13 years	BSc
Eight	Internal Auditor	5 years	HND
Nine	Bank Analyst	16 years	PhD
Ten	Cashier	6 years	HND

Source: Field work, 2021

Tables 3 and 4 show the theme and findings from the interview. Columns 1 and 2 of the tables show the emerged themes and also findings. Columns 3 to 12 shows the key informant interviewee numbers indicated in table 2. The columns are used to reveal which key informant the theme originates from and is indicated with small letter **x**.

Table 3 *Theme: Banking Operations*

Theme	**Findings**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Inefficient Management	Strategies and business models that can promote financial sustainability are lacking in some MFB. High cost of operations, diversion of funds as advances to directors. In adequate expertise to manage finances and generate reports for performance evaluation. Poor screening and vetting procedures of customers		**X**		**x**	**x**	**x**	**x**	**x**	**x**	**x**
	Absence of policy to address any eventuality like death which allows for replacement or filling the vacant position with a relative or family member that have no experience in banking operations.	**x**	**X**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
	Some banking products are not created to achieve the mandate of extending	**x**	**X**	**x**					**x**	**x**	**x**

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	credit facilities to the poor and low income earners and some loans are granted to finance non-generating income activities										
	Absence of innovative products and initiatives to encourage or finance the training of staff on technology driven banking services	**x**	**x**	**x**	**x**	**x**		**x**	**x**	**x**	
Inadequate Capital	Lack of capacity to achieve sustainability created the vulnerability of some banks to be channel for money laundering. Insufficient funds to cover overhead cost incurred on renting premises, recruiting and paying qualified staff and instituting ICT infrastructure for financial management and reporting	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

Source: Field work, 2021

In explaining management inefficiency and capital adequacy in banking operations, an interviewee explained that 'high cost of operations and the poor verification of customers and lack of strategies makes some banks inefficient in managing their operations towards generating more revenue with less cost' More so, another interviewee reiterated that 'the absence of a policy to address the demise of any member promotes inefficiency of operations, the passing away of the chairman board of directors allowed his son a primary school teacher with no banking experience to run the affairs of the bank' an interviewee also narrated that 'insufficiency of funds as a result of high cost of operations incapacitated some of the banks not achieve sustainability.'

Table 4 *Theme: In-Solvency*

Themes	**Findings**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Illiquidity	High interest rate that decreases loan rate payment. Impaired loan that does not increase interest income. Low working capital. Granting credit to individuals that are not account holders of the bank	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

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Poor asset quality	Increased growth in loan and repayment default. Nonperforming loans as a result of restricted mandate.	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Poor earnings ability	Insensitivity to CBN guideline on micro-credit and retail transactions. Over dependent on benefiting from NDIC safety net. Inability to embrace technology based products to capture the unbanked and poor savings mobilization		**x**		**x**		**x**		**x**	**x**

Source: Field work, 2021

In elucidating in-solvency of the banks an interviewee said *'that granting loans to family members of board members that are not account holders affected the liquidity positions and working capital management of some banks'* Additionally, another interviewee *revealed that 'Not only did high interest rate influenced default in loan repayment and loss of interest income it also affected the quality of bank assets. Also, restriction of microfinance banks mandates not to extend credit facilities to low-income civil servants or workers in financial institutions and other related organisations affects earnings ability.' Also, an* interviewee expressed that *'Microfinance banks overdependence on NDIC safety net affected their earning ability in some instance and inability to mobilise savings.'*

Table 5 *Descriptive and Inferential Statistics*

Variables	**Min**	**Max**	**Mean**	**Std. Dev.**	**Correlation**	**Coefficient**	**P-values**	**N-Obs.**	**Z - Score**
CF	0.001	4.25	0.79	0.93	1	-	-	**270**	
ICA	0.100	0.65	0.31	0.14	-0.36*			**270**	
					0.00	-2.96	0.00		-6.5
AQ	0.006	0.59	0.12	0.11	0.17*			**270**	
					0.01	0.73	0.20		1.1
MIE	0.001	0.91	0.49	0.32	0.24*			**270**	
					0.00	0.59	0.00		3.5
EA	0.002	0.27	0.42	0.05	-0.10			**270**	0.2

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					0.11	0.143	0.90		
ILL	0.004	0.85	0.24	0.24	-0.10			**270**	-2.7
					0.00	-0.76	0.00		
FS	14.123	24.95	21.68	1.80	-0.11			**270**	-2.9
					0.10	-0.12	0.00		
R^2	0.45								
F. Stats	14.66								
F. Sig	0.00								

Source: STATA output listing, 2022

The Shapiro wilk test conducted indicated a 1% p values which shows the data is not normally distributed; this does not affect inferential statistics (Gauss, 1829). The independent variables are within the threshold. The VIF and TV are less than 10 and 1, indicating that Multicollinearity was avoided. However, the Wooldidge test for auto correlation in panel data was significant at 5% revealing the presence of serial correlation, this called for the panel corrected standard error (PCSE) regression to be conducted. On the whole the panel observations were not balance. 480 observations were not achieved because not all the sampled banks had completed financial statements for the study period, hence 270 observations were used.

On the average corporate failure CF is at 0.79 with minimum of 0.001 and a maximum of 4.25 values. The result indicates that during the study period failure rate is 79% which is approximately 80% and it ranged between 1% to 100% failures. Capital is averagely on 0.31 and ranging from 0.10 to 0.65 as the maximum. This implies that on the average, the proportion of the capital base on the total assets of the banks stood at ₦30m, during the study period and across the banks it was between ₦10m to ₦65m this is grossly inadequate capital **ICA**.

Asset quality **AQ** has a mean of 0.12 with a minimum of 0.006 and maximum of 0.59 in values. This shows that averagely the quality of asset is at 12% which is very poor and it ranges between 1% to 59%. Management inefficiency **MIE** has a mean value of 0.49, minimum and maximum values of 0.001 and 0.91 respectively. The result indicates that there is 49% inefficiency of management of these banks and it ranges between 1% to 91% across the banks. Earnings ability **EA** is averagely at

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42% ranges from 1% to 27% which is poor earnings. A mean of 24% indicates illiquidity **ILL** of microfinance banks and ranges from 4% to 85%.

The cumulative R^2 (0.45) which is the multiple coefficient of determination gives the proportion or percentage of the total variation in the dependent variable as explained by the independent variables jointly. Hence, it signifies **45%** of total variation in corporate failure of microfinance banks in Nigerian is caused by the collective efforts of inadequate capital, poor earnings ability and asset quality, management inefficiency and illiquidity. This result further indicates that the model is fit. The Fisher's statistics (F-statistics) of 14.66 which is significant at 1% indicates that the model is fit. In addition, it also implies that for any change in independent variables used in this study, corporate failure of these banks will be directly affected. The probability value of (0.00) of the F-statistics which is significant at 1% implies that there is 99.9 percent likelihood that the association among variables is not due to mere chance.

Addressing Questions and Hypotheses Testing

On the research question **one**, does inadequate capital cause corporate failure? Yes, the study findings in table 3 showed that inadequate capital was a cause of failure for some banks. This was confirmed by the regression result. The panel corrected standard error PCSE regression result reveals that capital employed has a coefficient of -2.96 which is statistically significant at 5% level. This implies that for every 1% increase in capital, **CF** is reduced by ₦2m and inadequate capital has a significant effect on CF of microfinance banks in Nigeria, this is further revealed by a negative z-score value of -6.5 which shows failure.

This finding meets our priory expectations that increased capital will not cause failure but inadequate capital. This finding gives evidence of rejecting the first null hypothesis of the study and accepts the alternative which says inadequate capital is significantly a determinant of corporate failure of microfinance banks in Nigerian. This is in line with Lotto, (2018); Aliero and Ache (2017) Umoru, and Osemwegie (2016); Obeten and Ocheni (2014). This study validates the buffer theory by revealing that microfinance banks had inadequate capital that is why some of them failed those that had capital reserve did not fail.

On the research question **two**, does poor asset quality cause corporate failure? Yes, the study findings in table 4 showed that poor asset quality was a cause of failure for some banks. This was confirmed by the regression result. The PSCE regression result reveals that asset quality has a coefficient beta value of 0.73 with a non-

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significant p-value of 0.20. This indicates that for every 1% increase in poor asset quality this will increase **CF** by 73%, this is further revealed by a z-score value of 1.1 <1.8 indicating corporate failure.

The finding provides evidence to fail to reject the **null** hypothesis two of this study which states that asset quality is not significantly a determinant of corporate failure of microfinance banks in Nigerian **but poor asset quality is a determinant of failure**. This meets our priory expectations because banks with asset quality within the study period did not fail. This support Munangi and Sibindi (2020); Folajimi and Dare (2020); Sporta (2018); Alhassan, Kyereboah-Coleman and Andoh (2014) who evidence that it is poor asset quality that causes failure of microfinance banks. This study validates the loan pricing theory by revealing that microfinance banks had high interest loan which increased default in loan repayment that led to their having poor asset quality.

On the research question **three**, can management inefficiency result to corporate failure? Yes it can, the study findings in table 3 showed that management inefficiency was a cause of failure for some banks. This was confirmed by the regression result. The PCSE regression result reveals that management inefficiency has a coefficient beta value of 0.59 with a significant p-value of 5%. This indicates that for every 1% increase in management inefficiency **CF** will increase by 59%, this is further revealed by a z-score value of 3.5 which is > 1.8 which shows efficiency is not a cause of failure but inefficiency is.

The finding provides evidence to reject the **null** hypothesis three of this study and accept the alternative which states that management inefficiency is significantly a determinant of corporate failure of microfinance banks in Nigerian. This is in line with the findings of Oloruntoba, Olabamiji and Kunle (2018) and Odetayo (2016); Ayunku and Uzochukwu (2020); Shetima and Dzolkarnaini (2017); Uchenna, Adedayo, Ahmed and Isibor (2016); Paul, Ebelechukwu and Yakubu (2015). This study validates the situational theory by revealing that microfinance banks that experience failures were complacent, not sensitive to the fact that efficiency is contingent upon reduction in high cost of operational cost and adequate capital.

On the research question **four**, does poor earning ability result to corporate failure? Yes, the research findings in table 4 indicate that poor earning ability was a cause of failure for some banks. This was confirmed by the regression result. The PCSE regression result reveals that earnings ability has a coefficient beta value of 0.14 with a non-significant p-value of 0.90. This indicates that for every 1% increase in

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earnings ability **CF** will increase by 14% which is very poor, this is further revealed by a z-score value of 0.2 < 1.8 which indicate failure. The finding provides evidence to fail to reject the **null** hypothesis four of this study which states that earnings ability is not significantly a determinant of corporate failure of microfinance banks in Nigerian.

This meets our priory expectations that only poor earnings ability can cause failure. This is in line with the findings of Garba (2019); Sanni, Salami and Uthman (2020); Ado, Rashid, Mustapha and Ademola (2020); Ogundipe, Akintola and Olaoye (2020); Obeten and Ocheni (2014). This study validates the loan pricing theory by revealing that microfinance banks had high interest loan which increased default in loan repayment that led to loss of interest income which affected their earning ability in that regard.

On the research question **five**, can illiquidity cause corporate failure? Yes it can, the research findings in table 4 indicate that illiquidity was a cause of failure for some banks. This was confirmed by the regression result. The PCSE regression result reveals that illiquidity has a coefficient beta value of -0.76 with a significant p-value of 1%. This indicates that for every 1% increase in liquidity, **CF** will be reduced by 76% this is further revealed by a negative z-score value of -2.7 this indicates failure. The finding provides evidence to reject the null hypothesis five and accept the alternative **hypothesis** of this study which states that illiquidity is significantly a determinant of corporate failure of microfinance banks in Nigerian.

This findings support Edewusi, Adeleke and Adekanmbi (2020); Yunusa, Oyindamola and Orshi (2019); Obeten and Ocheni (2014). This study validates the credit risk theory by revealing that microfinance banks had very high out flows and low or no inflows in some cases that caused illiquidity. On the whole, structural inertia theory was validated to show that in banking operations avoiding inadequacy, inefficiency reliably produce cooperative action that replicate structure with high fidelity, which prevents or averts corporate failure.

Implication of Findings on Policy

The findings of this study on capital inadequacy implies that the CBN policy on mandating microfinance banks to shore up their capital base by meeting their peculiar capital requirement by April 2021 and April 2022 is adequate and in the right direction. Secondly, the provision in the microfinance bank 2018 code of governance section 2.1.9 directing the board of directors to ensure a succession plan is in the right direction. However, it is not adequate because it did not include

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chairman of board only MD/CEO as our finding showed that the demise of a chairman board of director promoted inefficiency in banking operations when his inexperienced son was made the chairman.

5. CONCLUSION AND RECOMMENDATIONS

The study relied on a pragmatic approach or mixed philosophy to examine whether corporate failures experienced by microfinance banks in Nigeria are caused by CAMEL. Findings revealed that capital inadequacy; poor asset quality, management inefficiency, poor earnings ability and illiquidity are causes of failure but entertaining adequacy, efficiency, quality of bank assets and ability to earn in CAMEL application in practice leads to banks not failing.

Based on these findings, the study concludes that inadequate capital, poor earning ability and asset quality, management inefficiency and illiquidity are significant determinants of corporate failure in Nigeria. The study strongly recommends that the CBN should sanction banks that could not meet the dead line of April 2021 and April 2022 on minimum capital requirement. Secondly, CBN should make it mandatory for banks to have a business model and this research recommends a model with identified strategies that promote financial sustainability, resilience, non interest loan and growth peculiar to the geographic location of the microfinance bank.

The CBN should widen the mandate of microfinance banks to include low income earners in civil service, financial institutions and other related organisations. This will increase their earnings ability and reduce default in loan repayment and decrease in non-performing as the banks will go into agreement with the employers to make deductions at source from their salaries to pay for the loan accessed. Thirdly, the CBN should make it mandatory as a second option for microfinance banks to outsource experts in finance, accounting and auditing in banking operations. This study recommends these banks to make financial experts their customers so that cost of providing accounting and internal audit services are low. This will address inefficiencies of management in fund management and irregular financial reporting.

Also, code issued on succession plan should include the demise of a chairman board of director. This will address inefficiencies promoted by inexperience or non-expert persons that are made to fill the vacancy. Fourthly, the NDIC should as a matter of necessity device rules by collaborating with CBN to restrict its safe net to include

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mostly performing microfinance banks. This will address poor earning ability of some banks and make them improve on their ability to earn.

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