MICROFINANCE BANK'S CLIENT-ENTERPRISE PROFITABILITY AND LOAN FAILURE IN OGUN STATE, NIGERIA

Adu, Cecilia Adurayemi[1], Prof. Owualah, Ikechukwu Sunday[2] and Dr. Babajide, Ayopo Abiola[3]

[1]Covenant University, Department of Banking And Finance Ota, Ogun State, Nigeria, cecilia.adu@stu.cu.edu.ng, prepet99@yahoo.com
[2]University of Lagos, Deparment of Finance, Akoka, Nigeria, owualah-ekeobasi@yahoo.com, sowualah@unilag.edu.ng
[3]Covenant University, Department of Banking and Finance, Ota, Ogun State, Nigeria, abiolababajide@gmail.com, abiola.babajide@covenantuniversity.edu.ng

Abstract

The study investigated the client-enterprise profitability and loan failure of microfinance banks' (MFBs) borrowers in Ogun State with a population of forty seven MFBs where twenty MFBs were selected as sample size for this study. The survey design was used through the administration of questionnaire. The linear regression method was used in analysing data and it was found out that effective monitoring and constant record checking were ensured by the microfinance banks' staff that made the borrowers keep records of their business transactions through the positive correlation with loan size structuring, (X^2 =171.859; p-value<0.01 and correlation coefficient =0.416; p-value <0.01); enterprise profitability further confirmed the highest hazard on period of default with further evidence from the Omnibus tests of model coefficients (X^2 = 38.645, degree of freedom=5, P-value<0.001) as indicated in the statistical relevance of the model. It was recommended that there should be an interactive session (interview) between the loan manager and borrower for the establishment of facts stated in the loan request form; quality cash-flow analysis of the enterprises should be properly done before loan is granted to small and medium scale enterprises (SMEs) likewise there should be an effective monitoring of loan usage by monitoring team of the microfinance banks to avoid diversion.

Keywords: enterprise profitability, loan failure, record –keeping**,** loan failure, loan size

1. INTRODUCTION

The introduction of microfinance banks in Nigeria is to grow small businesses, provide credit facilities to micro-businesses, cooperative societies, and individuals. Due to some stringent collateral requirements, some enterprises cannot ordinarily obtain loans from the Deposit Money Banks (DMBs). While microfinance banks were established to grow the economy from the lower rung of the ladder, their performance in recent times is indicative of a failure to support the unbanked sector and the downtrodden (Dailyposts,2018)

As established by Nourse (2001), there is a need for provision of savings and insurance services by microfinance banks for the underprivileged and not just credit products though they offer products like acceptance of deposits, loans for consumption or emergency, micro-insurance, credits for business and education; it was further evaluated that the prospective upsurge of microfinance products needs to be delivered and tailored towards credits for the deprived and not unyielding loan products which were incorporated in a model by Eyiah in (2001) for microfinance banks in emerging nations that made provision for microenterprise contractors' lending structure and small construction management contractors.

A notification to revoke the operating licences of 154 microfinance banks in the country was given on the 26th September 2018 by the Central Bank of Nigeria (CBN) as a result of loan failure (inability of microfinance banks to recover a higher percentage of the loans given to their customers. It was reported by the Central Bank of Nigeria that 62 of the microfinance banks had already closed shop; 74 became insolvent; 12 were terminally distressed; while six voluntarily liquidated (Dailyposts,2018)

Most operators deviated from the rules laid down for the sector by the Central Bank of Nigeria. The sector will thrive if the real microfinance practice as laid down in the Bangdalesh banking model is followed. Microfinance loans should be given to people on the streets who need little funds to do business, that is the active poor to engage in small businesses of petty trades (Bhuiya, 2015).

Loans to an individual should not go beyond five hundred thousand (N500,000) and must be monitored for prompt repayment, strictly used for its purpose to avoid diversion. Huge loans to individuals must be avoided to reduce the effect on shareholders' funds which could lead to bad debt. Over 860 out of 890 microfinance banks in Nigeria were struggling to survive because a majority of them operate on a high scale (Bhuiya,2015)

Research Question- What effect does client- enterprise profitability have on loan failure?

The rest of the paper is divided into four sections- literature review, methodology, findings and discussion of the result, and concluding remarks and recommendations

2. LITERATURE REVIEW

Credit risk theory is the most appropriate theory for this study as it relates to loan failure by the owners of the enterprises considered.

Christen (2001) confirmed that demand for savings extensively surpasses enterprise loan demand which is a rational market estimate for savings among the deprived as confirmed by Christen (2001); it was further reported that retail banks in Latin America opened millions of small deposit accounts in nations in which microfinance banks added fewer than 200,000 loan customers within the same period over a space of two to three years (Churchill, 2002).

The reasons for the incapability of microfinance banks' clients to repay their loans according to the study includes; incompatible technology, poor selling prices of farm produce, inappropriate loan disbursement procedures, inflexible repayment arrangement, insufficient loan supervision and supervisory staff quality, natural disasters (e.g. erosion, pest and disease), fund diversion, and agricultural loan misconception as national cake. In the same vein, Oshuntogun (2007) noted that there are some repayment challenges faced by most credit institutions in Nigeria given the borrower's weak analysis in farming operations and repayment potentials. Further evidence from Ajah, Eyo and Abang (2013) confirmed that credit administration when placed against repayment performance in many parts of Nigeria has not been encouraging. Consequently, Ahmad (1999), in his study enumerated other causes of loan failure to include borrower's lack of willingness to repay loans coupled with borrower's fund diversion, wilful negligence and credit officer's improper appraisal

The enterprises owned by the microfinance banks' clients and others when well-funded through enterprise micro-loans are sources of economic development to any nation. Increase in the establishment of enterprises would lead to increase in real output, employment generation, utilization of local raw materials, development of intermediate goods, rural technology transfer, and so on (Adu,2013).

Despite the positive contributions of small-scale enterprises to the economic growth and development, there are some challenges confronting them which are highly risky to the enterprises and microfinance banks if cautions are not taken: lack of adequate collateral by small and medium scale enterprises; non-availability of records or defective financial records that create difficulty for financial review, and performance of some small-scale enterprises; low returns on small-scale enterprises investments due to high operating cost; competition from cheap imported goods which erodes the market for homemade goods by small-scale enterprises**;** entrepreneurs' low education, poor management, and entrepreneurial skills**;** unfavourable bank

lending strategies/ formalities which small-scale enterprises cannot meet**;** inadequate keeping of financial and business records to meet the standard listing requirements of capital market; inconsistent government policies; lack of social amenities like good roads, constant electricity, tap water, and so on; unstable macroeconomic environment due to inflation, high import dependency, and so on which lead to very poor/low client enterprise profits and loan failure (Adu,2013)

3. METHOD OF DATA ANALYSIS

For this research, the survey research design was used. The sample size was selected from the target population using a stratified random sampling technique which is one of the most popular methods of sampling. There were forty-seven microfinance banks in Ogun State but twenty were selected for this study. In total, two hundred copies of the questionnaire were administered to microfinance banks' clients in the Ogun State, Nigeria as respondents while one hundred and eighty-two were returned. Data were collected within two weeks due to closeness.

A well-structured multi-item questionnaire was designed to obtain information from the respondents. In the questionnaire, clients who were on loan repayment period were the ones given the questionnaire to fill. The section A of the questionnaire comprised of the biodata of each respondent while section B comprised of six constructs on payment status, defaulted period, instalment size, enterprise profitability before loan, total default period and defaulted amount. A five-point Likert scale measurement was used which were Agreed, Strongly Agreed, Indifferent, Disagreed and Strongly Disagreed.

3.1 Model Specification for Loan Failure

The model below was adapted from the work of Onyeagoacha, Chidebelu, and Okorji in 2012 and slightly modified to suit this study to capture all the measurable variables as indicated below:

LFR= f (PAS, DEFP, INST, ENTPBL, TDP, DEFA)…… (1)

This explicitly expressed as:

$LFR= \beta_0 + \beta_1 PAS+ \beta_2 DEFP+ \beta_3 INST+ \beta_4 ENTPBL+ \beta_5 TDP+ \beta_6 DEFA +\mu_t$ …… (2)

Where;

LFR is Loan Failure

PAS is Payment Status

DEFP defaults Period

INST is Instalment Size

ENTPBL is Enterprise Profitability before Loan

TDP is Total Default Period

DEFA is Defaulted Amount

β_0 is the intercept

$\beta_{1...}$ β_6 are the parameter estimates

μ_t is the stochastic error term

3.2 Measurement of Variables

As mentioned earlier, data for the study were collected using a survey research design. Variables were drawn from the literature, and data were collected to represent each variable. For each of the variables, a set of questions were formulated, transcribed, weighted and averaged to form composite indices for each construct.

4. RESULT PRESENTATION AND DISCUSSION

This chapter presents a detailed description of the results of the data analyses from the primary. The results were obtained from the frequency distribution and percentages. The descriptive statistics are presented in the tables and graphs while empirical results were estimated based on equation in 3

Table 4.1: Descriptive Analysis (Primary data)

Descriptive Analysis		
Gender	Frequency	Per cent
Male	58	31.9
Female	124	68.1
Total	182	100.0
Age	Frequency	Per cent
20-30 years	48	26.4
31-40 years	109	60.0
41-50 years	23	12.6
51 years and above	2	1.0
Total	182	100.0
Educational Qualification	Frequency	Per cent
Primary School Certificate	53	29.1
WACE/GCE/NECO	76	43.0
HSC/NCE/OND	23	12.6
HND/B.Sc.	26	14.3
M.Sc./PhD.	4	1.0
Total	182	100.0
Occupation	Frequency	Per cent
Trader	41	22.5
Farmer	37	20.3
Artisan	55	30.2
SME owner	23	12.6
Teacher	14	7.6
Civil servant	11	6.0
Others	1	0.5
Total	182	100.0

Source: Researcher's Survey, 2018

The demographic information of the respondents in the table above indicates the sample size of the survey study consisting of 58(31.9%) male and 124(68.1%) female suggesting that the female clients constituted a greater proportion of the study. The age distribution of the participants showed 48(26.4%) of the sample within the age bracket of 20-30 years, 109(60.0%) which constituted the largest portion of the respondents who were within the age limit of 31-40 years, 23(12.6%) fell within the age bracket of 41-50 years while 2(1.0) were the last category of the respondents within 51 years and above. This implied that the more economically active population were prone to borrowing from microfinance banks in a bid to acquire more economic power and financial independence. From the descriptive table above, 53(29.1%) had their primary school certificate, most of the participants 76(43.0%) were WAEC/GCE/NECO holders, followed by those 23(12.6%) who were HSC/NCE/OND holders, 26(14.3%) were either HND or B.Sc. graduates while 4(1.0%) fell within the MSc and PhD categories. This indicated that the majority of the borrowers consisted of entrepreneurs with low-level education. The occupational demographic distribution of the respondents showed that most beneficiaries of the microfinance banks' loan were traders 41(22.5%), teachers 14(7.6%), civil servants 11(6.0%), artisans 55(30.2%), farmers 37(20.3%), small and medium enterprise (SME) owners 23(12.6%) and others 1(0.5%). This could be explained by the reason that generally in most cases, loans

obtainable from microfinance banks run between 6 months and 1 year which are usually working capital. Highest loan in a microfinance bank is 24 months except in some extraordinary cases like housing loan. Though in some cases farmers that plant cash crops and perennial crops with long gestation periods of 2 to 3 years may be given longer periods pending the period of harvest and sales before repayment of loans can start.

Table 2 Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	172.540[a]	.136	.192

Researcher's computation with SPSS, 2018

In the linear regression model, the coefficient of determination, R^2, summarised the proportion of variance in the dependent variable associated with the predictor (independent) variables, with larger R^2 values indicating that more of the variation was explained by the variables in the model, to a maximum of 1. For regression models with a categorical dependent variable, it was not possible to compute a single R^2 statistic that has all the characteristics of R^2 in the linear regression model, so these approximations were computed. The following methods were used to estimate the coefficient of determination.

• Cox and Snell's R^2 were based on the log likelihood for the model compared to the log likelihood for a baseline model. However, it has a theoretical maximum value of less than 1, even for a "perfect" model. Given the survey data, the Cox and Snell's R^2 showed that the independent variables explained 13.6 per cent of the variance in loan default in the model

• Nagelkerke's R^2 was an adjusted version of the Cox & Snell R-square that adjusted the scale of the statistic to cover the full range from 0 to 1. The result of the Nagelkerke's R^2 further explained 19.2 per cent of the variance in loan default as a result of the variations in the independent variables (payment status, period of first default, instalment size, enterprise profitability before loan, total default period and defaulted amount).

Table 3 Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	4.165	7	.761

Researcher's computation with SPSS, 2018

Goodness-of-fit statistics helped to determine whether the model adequately described the data. The Hosmer-Lemeshow statistic indicated a poor fit if the significance value is less than 0.05. Here, the model adequately fitted the data given the Chi-squared result 4.165 with the degree of freedom (7) and a p-value of 0.761>0.05. This meant that the model correctly fitted the data which further showed that the estimated result was reliable and free from bias.

Table 4 Contingency Table for Hosmer and Leme show Test

		Loan failure = Non default		Loan failure = Defaulted		Total
		Observed	Expected	Observed	Expected	
	1	11	11.192	5	4.808	16
	2	7	7.770	9	8.230	16
	3	8	7.593	11	11.407	19
	4	7	5.190	10	11.810	17
	5	3	2.877	8	8.123	11
	6	6	8.686	32	29.314	38
	7	3	2.344	10	10.656	13
	8	4	2.578	13	14.422	17
	9	0	.769	11	10.231	11

Researcher's computation with SPSS, 2018

This statistics was the most reliable test of model fit for binary logistic regression because it aggregated the

observations into groups of "similar" cases using a cut value of 0.5000 for defaulters and non-defaulters. The statistic was then computed based upon these groups. The result of the contingency Table 4 above showed the model estimation of nine groups with a sample size of 158 for defaulted and non-defaulted cases. The first group estimate consisted of 5 defaulters from a sample of 16 observations, the second group were made up of 9 defaulters from a sample of 16 observations, the third group consisted of 11 defaulters within a sample observation of 19, in the fourth group were 10 defaulters from 17 observations, the fifth group were made up of 8 defaulters from a sample of 11 observations, the sixth group were 32 defaulters from a sample size of 38 observations, the seventh group consisted of 10 defaulters from a sample of 13 observations, the eighth group was made up of 13 defaulters given a sample of 17 cases while the ninth group was 11 defaulters all through

Table 5 Classification Table

	Observed		Predicted		
			Loan failure		Percentage Correct
			Non-default	Defaulted	
Step 1	Loan failure	Non default	11	38	22.4
		Defaulted	9	100	91.7
	Overall Percentage				70.3

a. The cut value is .500

Researcher's computation with SPSS, 2018

Cross-tabulation observed response categories with predicted categories that help to determine how well the model identified the defaulters. Of the cases used to create the model based on the cut value of 0.500, 11 of the 49 people who had previously not defaulted were classified correctly with 22.4 per cent while 100 from the 109 of those who had defaulted were classified correctly with 91.7 per cent. Overall, 70.3 per cent of the cases were classified correctly. This implies that model predictor power was 70.3 per cent; hence the included variables accounted for 70.3 per cent of the total variations in loan failure

Table 6 - Variables in the Equation

		S.E.	Wald	Df	Sig.	Exp(B)
	PAS	.432	6.639	1	.010	3.046
	DEFP	.338	9.722	1	.002	.349
	INST	.336	3.060	1	.080	.555
	ENTPBL	.365	4.036	1	.045	2.080
	TDFP	.254	5.882	1	.015	.540
	DEFA	.245	3.357	1	.067	.638
	Constant	.811	19.465	1	.000	35.882

Researcher's computation with SPSS, 2018

The parameter estimates in Table 6 summarized the effect of each predictor. Exp(B) represented the ratio-change in the odds of the event of interest for a one-unit change in the predictor.

The analysis of the regression coefficient for payment status is equal to 3.046 at 1 per cent significance level, which meant that the occurrence of defaulters is 3.046 times than non-defaulters. A unit change in a period of default from days to weeks, weeks to months or months to years indicated the occurrence ratio of 0.349 significant at 1 per cent. This meant that the odds of default for a person whose default period was in weeks was 0.349 times the odds of a person who defaulted in days. The amount of instalment indicated that a unit increase in instalment amount would significantly increase the occurrence of a default by 0.555 times though at 10 per cent level of significance.

The estimated coefficient for enterprise profitability before loan at 5 per cent level of significance revealed that the occurrence of default for a client with less than N50,000 was 2.080 times the occurrence of default of a client with enterprise profitability of N50,000-N100,000 all things being equal, this suggested that increase

in enterprise profitability before loan could account for increase in loan default. This could be traceable to the tendency of the microfinance bank's client to divert the gains made from the business to the satisfaction of other needs at the detriment of the loan repayment. The evidence from the estimated result of the total default periods at 5 per cent level of significance showed that the odds of default for a client who has defaulted twice was 0.540 times the odds of a client who defaulted once. Hence, the higher the frequency of default by a bank's client the more the incidence of loan failure, and the lower the survival of the microfinance banks.

Further evidence from the regression coefficient of defaulted amount indicated a 0.638 change in the odds ratio for loan default due to a unit change in defaulted amount. This meant that the odds of default for a client who defaulted by 10,000 NGN is 0.638 times the odds of default for the client with a defaulted amount of 5,000 NGN all things being equal. This showed that clients with a lower amount of loan would most likely default more than clients with a higher amount of loans. This was further explained by the reason that bank's clients could attract more strict supervision and monitoring with a larger amount of loans and advances compared to bank's clients with smaller loans and advances.

Given the above scenario, the rate of default could most likely be reduced for clients with higher categories of the loan amount that was yet to be paid by the bank's clients. Thus, this study rejected the alternative hypothesis that client enterprise profitability has no significant effect on loan failure. Hence, enterprise profitability has a significant effect on loan failure, and could significantly influence the period of first default of the microfinance bank's clients.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

The extent of the relationship among payment status, defaulted period, instalment size, enterprise profitability, total defaulted period, defaulted amount and loan failure was investigated with binary logistic regression. The result from the analysis revealed that payment status of the client accounted for the largest variation in the loan failure, followed by the enterprise profitability of the borrower after loan. A critical observation was noted in the regression result which showed that all the variables included significantly influenced the loan failure captured from a period of first default. This also suggested that increase in the number of defaulters, higher defaulted periods, increase in instalment size, increase in enterprise profitability, total default period and defaulted amount are significant factors that explain the variations in the period of first defaults among the microfinance bank's clients.

The analysis of the responses from the bank's staff through cross-tabulation provided evidence of a significant correlation between banks' lending criteria and loan size structure of the banks. Detailed analysis of the result from the study revealed a statistically significant relationship between lending criteria and loan size structure. These factors which included quality cash flow analysis with an estimated chi-square (X^2 =175.931; p-value <0.01) and Spearman rank correlation coefficient (0.454; p-value <0.01), quality collateral and collateral substitutes (X^2 =138.643; p-value <0.01) and Spearman rank correlation coefficient (0.398; p-value <0.01), effective monitoring and constant checks of client's records (X^2 =171.859; p-value <0.01) and Spearman rank correlation coefficient (0.416; p-value <0.01) and stock hypothecation and borrower's insurance policy (X^2 =177.496; p-value <0.01) and Spearman rank correlation coefficient (0.330; p-value <0.01) were all significant at 1 per cent level of significance with a relatively moderate and positive correlation coefficient.

There appeared to be a significant difference between enterprise profitability before and after loan which suggested that microfinance bank's loan improved the enterprise profit. However, the challenge remained that some of these banks' clients in some instances could be forced to divert both the profits and loan size borrowed to other expenditure in order to satisfy some pressing needs at the detriment of servicing the loans with its accrued interest which would further result to loan default, non-performing loans and in extreme cases bad debt. This was confirmed in earlier study's result by Njoku and Obasi, (2001) who stressed the fact that loan default is still a serious problem to all the financial institutions (including microfinance banks) in Nigeria.

RECOMMENDATIONS

-Quality cash-flow analyses of enterprises should be properly done before loan facility is granted to SMEs

-Effective monitoring of loan utilisation should be done by MFBs follow-up team to avoid diversion of the loan by the borrowers

-There should constantly be checking of borrowers' records of business transactions to avoid cases of deliberate default

-There should be continuous training of MFBs staff on Microfinance banking which differs from the commercial banking training

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