Causes of Loan Defaults within Microfinance institutions: Learning from Micro and Small Business Owners in Rwanda: A case of MSEs in Kigali

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Abstract

The study analyse the factors that causes loan defaults within Microfinance institutions learning from the perception of entrepreneurs in Rwanda. Explanatory research design was used. Data was collected from primary and secondary sources using questionnaire and documentation. The study population included microfinance institutions within Kigali. The target population included MSEs that are classified within a portfolio of nonperforming loans. Structural Equation Modeling (SEM) was used to analyse the correlation between the study variables. The findings from the survey showed that loan delay, loan shortage, loan deviation, interest rate, improper management, business environment have a significant impact on nonperformance. The researcher recommended that entrepreneurs should be trained on financial discipline and how to manage the loan finance

1. Introduction

Micro and Small sized enterprises (MSEs) are considered as the engine that drives the growth of many countries (Wang, 2016). In Rwanda 80% of the establishment are classified as MSEs. They contribute more than 80% to the countries growth and they employ more than 90% of the population (National Institute of Statistics Rwanda, 2017). MSEs are considered as the life blood of most economies around the world and thus ignoring the importance of this sector in the economic growth and development of the country is a bird eye view.(Egu *et al*., 2016).Microcredit repayment is still a major challenge in many microfinance institutions

(Muthuni, 2016). This challenge does not only affect the financial health of the microfinance institutions, but it also affect the economic conditions of the country and family relationship as many entrepreneurs end up by losing their assets and income as a results of loan default

Access of credits by MSEs from the formal banking sector is mainly constrained by the high risks and high transaction costs, thus commercial banks are reluctant to lending to this segment (Muthuni, 2016). Due to the neglect of this sector by the commercial banks, microfinance institutions plays a very important role   to help SMEs to access financial capital particularly in their early years that can be critical for their success (Muthuni, 2016). In developing countries, limited financial capital remains one of the main challenges for SMEs than large firms, and access to finance undesirably affects growth of the MSEs segment as compared to the large companies Muriithi, (2017), in this regard international development community and many governments listed MSEs financial access as a crucial policy priority.

Microcredit is one of the strategies used by the government to enhance the development of micro and small businesses Microcredit is one of the strategies used by the government to enhance the development of micro and small businesses (Muthuni, 2016). Recognizing the importance of micro and small businesses, in enhancement of employment and incomes as well as being the drivers for innovation and growth, 2008 the government of Rwanda initiated the Umurenge SACCO (Microfinance at sector level) to provide microcredits to micro and small businesses. These loans are aimed at enabling the micro and small businesses to be self-independent

Microfinance institutions not only offers microcredit to MSEs, and households, they also offers additional services such as savings, insurance, investment advice and trainings programs to the entrepreneurs (Panchecho, 2015). More importantly, Microfinance institutions provide micro financial services to the low income households and thus promote self- employment of individuals (Brown et al., 2011). The aim of microfinance institutions in Rwanda is not only to provide capital to the disadvantageous group of the population, but also plays a very critical role in combating poverty among the individual household. Moise and Hongyi (2017) posit that microfinance institutions provide "financial services to the poor, low income unbankable customers" and those clients with no collaterals that finds it hard to have access to commercial banks.).According to the MINICOFIN (2015), Microfinance institutions were established with

the aim of helping to eliminate poverty and the growing income inequality especially among the youth and the women that finds it hard to access financial services from the formal banking sector. However, it is important to note that for the microfinance institutions to remain operating as going concern, they need to manage their loan portfolios more effectively and efficiently. Poor management of the loan portfolio will result into loan defaults and thus threatening the survival of the microfinance institutions.

The issue of non-performing loans and loans default in microfinance institutions (MFIs) are relatively higher compared to commercial banks. This becomes one of the major cause of misery of lenders in case microfinance institutions have loaned too many defaulters the balance sheet will be affected and the operations are affected in terms of cash, reduction of lending capacity, financial returns and capacity to raise more other capital.

In East African Community (EAC) region, the case of non-performing loans totals the average of 7.8% at the end of June 2018 where Burundi and Tanzania have recorded the higher NPL ratio of 12.7 and 8.2% respectively (AMIR, 2019) while in Rwanda the issue of non- performing loans in banking and non- banking sector including microfinance have recorded a rate of 6.6% of non-performing loans despite the efforts of the government. Although the Rwandan situation looks good compared to other East African countries, it is important to note that the level of non-performing loans still above 5% that is recommended by the National Bank of Rwanda. This therefore implies that non-performing loans are still major challenge of microfinance institutions in Rwanda.

Previous studies analyzing the phenomenon of causes of loan defaults have been biased on the supply side of loans ignoring the demand side. Muthuni (2016) assessed the borrowers and the business factors causing microcredit defaults in Kenya. The findings from the survey show that borrowers characteristic, business characteristic determines loan default within the microfinance institutions. Furthermore, business size, borrowers' experience, business location, market competition, and industry also determine loan default in the microfinance institutions. Duarte et al. (2017) investigated the defaults in banks loans to SMEs during the financial crisis. The study focused on the lending back, loan characteristics, macroeconomic conditions, sector and geographical location. Pacheco (2015) investigated the probability of defaults within SMEs in

the hospitality sector in Portugal. The results from the survey show that ascertaining the creditworthiness of the borrower debt and equity explains the failure.

Furthermore, Kinyera (2014) found out that loan defaults within the microfinance institutions is due to poor client appraisal, collateral appraisal and client's loan history. Similarly, in the study conducted by Adem et al.,(2012) loan defaults is due to poor credit risk identification, companies paying huge amount of taxes. On the other hand, Warue (2012) highlighted that commercial banks are not willing to provide credit to small and medium enterprises. Findings from previous studies show that there is limited evidence on the causes of loan default within microfinance institutions especially on the demand side of loans in Rwanda. Most of the evidences from the previous studies highlight the causes of loan defaults from the supply side of the loan.

This study contributed to the current literature by providing factors that leads to loan defaults after learning from the perspective of entrepreneurs. Addae-Korankye (2014) defines loan defaults as the situation where the borrower is unable to meet his or her obligations when is due. Similarly, Ntiamoah *et al*. (2014) defines loan defaults as the situations where the borrower fails to meet their obligations as the fall due. A loan becomes default when the chances of recovery become minimum or difficult.

Microfinance institutions measures loan defaults in order to know the risk of loss, warnings of operation and the portfolio that stands a risk of being lost in case of defaults. CGAP (1999) highlights three types of loan defaults and these include; default in collection which is measured by the amount that is actually collected against the amounts that have fallen due. Another type is the arrears rate which measures the overdue amount against the total loan amount. The last type of loan default as put forward by CGAP (1999) is the portfolio at risk which measures the outstanding balances of loans that are not being paid Studies by Ameyaw-Amankwah (2011) and Murray (2011) show that loan defaults occurs when the obligor of the loan fails to honour their obligations as specified in the contract

According to Barry and Tacneng (2014), the sustainability of microfinance institutions in the Sub-Saharan Africa is greatly threatened by the increased portfolio at risk. The study further

illustrates that globally the region recorded the highest portfolio at risk which was greater than 5%. Buss (2005, pg7) points out that the portfolio at risk in the Microfinance institution is mainly caused by "poor reporting, poor control system, poor information system and poor credit management". Similarly, CGAP (2013, Pg 10) highlighted that microfinance institutions face numerous challenges in the financial performance which are caused by "operating expenses, unpaid loans, and high management transactions".

Munene and Huka (2013) highlighted the factors that lead to loan defaults within microfinance institutions. The study found out that loan defaults in the SMES is mainly caused by cash flow problems, type of the business, age, location and the profitability of the business. The researchers further highlighted that, "the level of business income is very important in determining the creditworthiness of the client" pg 6. Businesses with little incomes find it hard to save and thus may be unable to meet their obligations as the fall due. Similarly, businesses with high income they can be able to save and raise money to buy collaterals.

Researchers like Gertler and Karadi (2011), Taman (2013) argued that financial shocks can be one of the causes of high defaults rates. They also pointed out that the loan default in microfinance institutions was the results of poor information dissemination among the customers and delusion of not paying the government money received to finance their projects. Abdoullah *et al.* (2011) conducted a study on the causes of loan defaults in Malaysia. The findings from the study indicated that group lending based model has better portfolio than individual lending model. The study further pointed out that "group lending model have been used to provide credit to the poor and make repayment on a weekly basis for income from generating activities, education and housing loans were effective and risk of defaulting was low".

The study further highlighted that "training and development programs should be emphasized to the poor households to improve proper use of loans and the emphasis on the need for households to invest in employment generating opportunities and create new income generating opportunities".

The study conducted by Adem *et al. (*2012) on the causes of loan default found of that credit risk identification as the major causes of loan default. The findings further revealed that huge taxes

and poor tax management as among the factors causing loan defaults. The study further found out that gender and age as among the important factors to consider when analyzing the causes loan default. This is because, the findings indicated that male client are likely to default as compared to their female counterparts. Also, the young clients are more likely to defaults as compared to mature people.

According to Gatimu and Frederick, (2014 pg8) the main causes loan default in microfinance institutions and financial institutions in Kenya include the "borrowers' history, borrower's willingness, diversion of funds, negligence and in some cases loan default is due to improper appraisal on the part of the loan officers".   In addition, Sangoro *et al.,*2012) Majeeb Pasha and Negese (2014) argued that the loan default is caused by many different factors such as the size of the family , domestic factors like family obligations that prevent the borrower honoring the contract ,social responsibilities like paying school fees, health insurance, sickness are among the causes of loan default in Microfinance institutions or financial institutions.

On the other hand, Ijaza *et al.* (2014) also explained the major causes of loan default such as high competition which compel the borrowers to sell identical commodities and lack of differentiation and diversification of the market and market risks. The type of activities can also influence the loan repayment especially in farming business.

A study conducted in Tanzania indicated that entrepreneurs engaged farming business increases the risk of portfolio defaults, due to rain shortage, volatility of production, droughts, deaths of animals because of diseases led to high defaults in loan repayment (Magali, 2013). Moreover, the business location can affect the loan repayment, favorable location of the business attracts many customers as a result more revenues to repay the loan on due time. Other causes of loan default as highlighted by Muthoni (2016) includes "scale of operation, family living expenses and sound management techniques could be some of the factors that can influence the repayment capacity of farmers".

Muthoni (2016) investigated the characteristics of microcredit default in Kenya. The study adopted a positivism approach was adopted. Primary data was collected from 294 microfinance institutions and 76 financial institutions using a questionnaire. Descriptive and inferential

statistics were used to analyse data. The findings indicated a strong correlation between the study variables. The findings further revealed that loan monitoring, prompt loan disbursement, default signals, verify of loan product, adherence to loan procedures, visit of the client to be statistically significant to the loan defaults whereas use of MIS is not statistically significant.

Pacheco (2015) investigated the probability of defaults within SMEs in the hospitality sector in Portugal. The study used secondary data which was collected from business enterprises. A logit regression model was used to analyse the relationship between the study variables. The results from the survey show that ascertaining the creditworthiness of the borrower debt and equity explains the failure. Zahyudi (2014) analysed the default risk in micro, Small and medium enterprises. Secondary data was collected using documentation from business enterprises. A logit regression model was used to analyse relationship between the study variables. Findings from the surved indicated that "cash flow, capacity and leverage are the major determinant of firm's default".

Duarte *et al.* (2017) investigated the defaults in banks loans to SMEs during the financial crisis. The study focused on the lending back, loan characteristics, macroeconomic conditions, sector and geographical location. Primary and secondary data was collected using questionnaire and documentation. A least square model was used to analyse the correlation between the study variables.

The results from the survey show that there is a positive correlation between collateral and defaults and a negative collation between loan influence and loan defaults. Muthuni (2016) assessed the borrowers and the business factors causing microcredit defaults in Kenya. The study population included 294 microfinance institutions and 76 finance companies. A mult-sampling technique was used to determine the sample. Data was collected from both the primary and secondary sources using questionnaire and documentation. A multiple regression analysis was used to analyse the relationship between the variables. The findings from the survey show that borrowers characteristic, business characteristic determines loan default within the microfinance institutions. Furthermore, business size, borrowers' experience, business location, market competition, and industry also determine loan default in the microfinance institutions

Causes of loan defaults have attracted various researchers across the globe. Their contribution in the literature of the causes of loan defaults cannot be ignored. However, it is important to note that although there have been a tremendous contribution by various scholars in this area of research, most of the empirical research that have analysed this problem have been biased on the supply side of the loan and thus ignoring the demand side of the loan.

Even the few limited studies that have analysed this challenge by looking at the demand side of the loan have been carried out in an economic environment that is different from that of Rwanda. Their contribution can neither be ignored nor can they uprooted and planted in the Rwandan environment. This study contributed to the existing in two ways: firstly the study established the causes of loan defaults within the microfinance institutions learning from the demand side of the loans and secondly the study contributed to the methodological approach by adopting the confirmatory approach.

2. Material and Methods

2.1 Study Design

This study was guided by pragmatism research philosophy with more inclination towards positivism as indicated by our thrust to understand entrepreneurs fails to honor their obligations. Therefore, in this study researchers used a quantitative research design. Use of quantitative approach in a study has been recommended by the various researchers (Kasomo, 2006, Twesige *et al*., 2020, Grafton, *et al.* (2011).

2.2 Study Population and Sampling

The study population consisted of microfinance 433 Microfinance institutions in Rwanda. However, due to the limited movement caused by Covid-19 pandemic, the study was conducted at the head office of the microfinance institutions in Kigali. According to the National Bank of Rwanda report (2019), there are 30 microfinance institutions in Kigali. The target population consisted of Micro and Small business (MSEs) that requested and received loans within the selected Micro finance institutions and have been classified under the portfolio of non-performing loans. The respondents within each Microfinance institution were purposively selected based on the fact that the researchers were interested only in those clients that have been

classified under the category of nonperforming loans. Due to the fact that, there was limited knowledge on the number of entrepreneurs that have been categorized under the nonperforming the sample size was calculated using Cochran formula of calculating unknown population as follows:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

- e is the desired level of precision (i.e. the margin of error),
- p is the (estimated) proportion of the population which has the attribute in question,
- q is $1 - p$.
- Z value is 1.96 with 95 % confidence level
- $n_0 = \frac{1.96^2 \ .0.5.0.5}{0.05^2} = 384$

A multi-stage sampling technique was used during the sample selection. A simple random sampling technique was used to select the Microfinance institutions whereas a purposive sampling was used to select SMEs that have been classified under a portfolio of non-performing loans.

2.3 Data collection

Data which was collected from both primary and secondary sources. Primary data was collected using different one set of questionnaires that was distributed to the entrepreneurs through their respective microfinance institutions. A closed and opene ende questionnaire was designed. The closed questions were designed using a likert scale and were distibuted to the entrepreneurs through the microfinance institutions. The researchers decided to use this type questionnaire in the study because of the advantages it has over other instruments as cited by (Kasomo (2006), Grafton, *et al.* (2011) and Twesige *et al*. 2020). Secondary data was collected using an on-desk research through review of the financial statements and reports of the microfinance institutions and other reports from the National Bank of Rwanda.

2.4 Data analysis

Data was collected from both primary and secondary was captured using SPSS template. The data was input into the SPSS Amos from where the analysis was carried out. Structural Equation Modeling (SEM) was used to analyse the factor loading through the use of a path diagram. A least squares structural equation modeling (SEM) was used to analyse the correlation between Factors that causes loan defaults and the nonperforming loan portfolio. A factor was considered statistically significant when the P-value is less than 5%.

This is in line with the study conducted by Mudiaga and Igbekoyi (2019) that used SEM in their research. The fitness of the model to predict correlation between the study variable was tested using Chi-square, comparative fit index (CFI), Normal Fit Index (NFI) and the Chi-square minimum degree of freedom (CMIN/df). The model was considered fit when the when the P-value of the Chi-square is less than 5% and when the CFI, and NFI are above 90% whereas when the CMIN/Df is below 5.

3. Results

This part provides the results collected from the survey and the discussions hereto

3.1 Standardized Factor Analysis of the Defaults Model.

The figure below shows the relationship between variables extracted using the Amos software. The dependent variables were the constructs extracted from the survey and were measured using the Likert scale. The dependent variable was measured using the log to base ten of the non-performing loans within the Microfinance institutions.
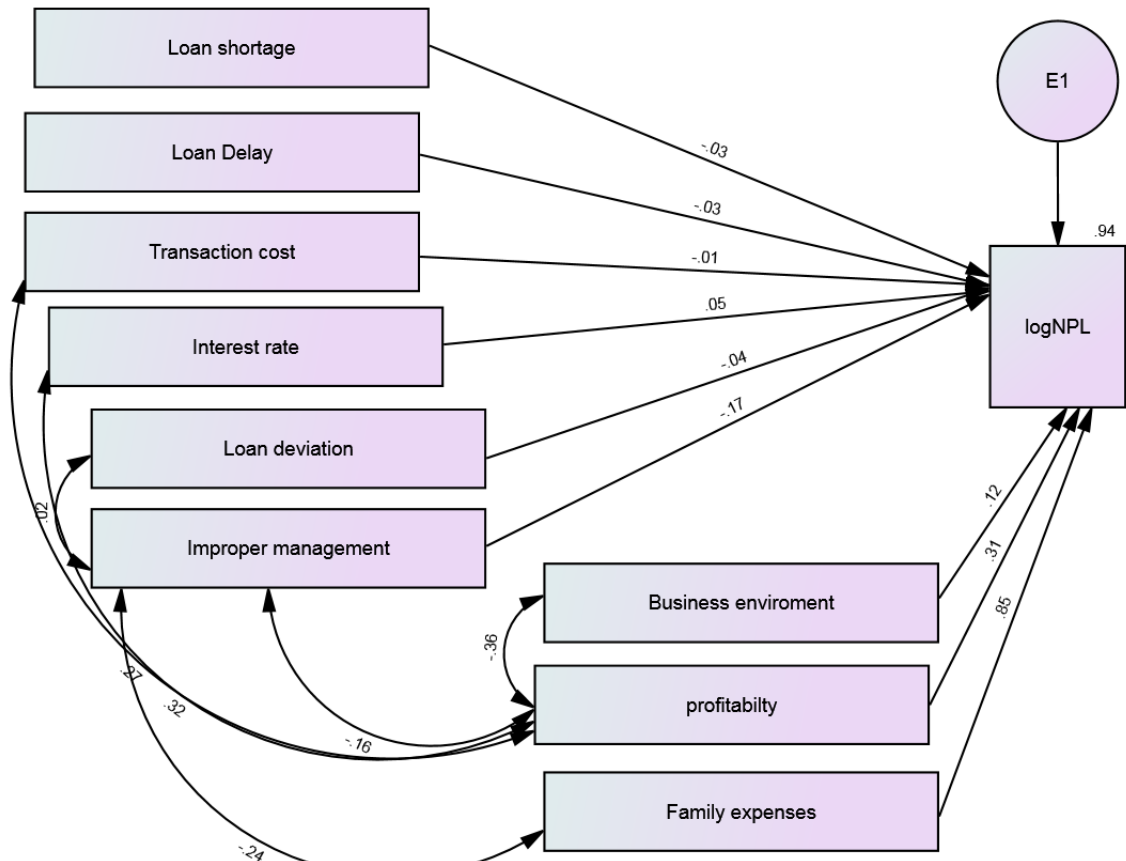
Source: Survey Data 2020

Figure 1: Graphical representation of the variables

Figure 1 tests the relationship between the dependent and the independent variable. The results from the survey show that, 94.0% of the variation in the log NPL is explained by the tested independent variables. In other words, the error variance of log NPL is approximately 6. This, therefore, implies that there is high correlation amid the independent variables and the dependent variables.

Table 1: Regression Weights of - Default model

		Estimate	S.E.	C.R.	P	Label
logNPL <---	Business environment	.044	.006	7.455	***	
logNPL <---	Profitability	.180	.010	17.540	***	
logNPL <---	Family expenses	.350	.006	58.057	***	
logNPL <---	Improper Management	-.102	.009	-11.392	***	
logNPL <---	Loan deviation	-.020	.007	-2.969	.003	
logNPL <---	Interest	.021	.006	3.220	.001	
logNPL <---	Transaction costs	-.003	.006	-.418	.676	
logNPL <---	Loan delay	-.015	.008	-1.776	.046	
logNPL <---	Loan shortages	-.013	.006	-2.187	.029	

Source: Survey Data 2020

Figure and table 1 show the multiples regression weights of the default model. The results collected from the survey show that there is a statistical significance between loan shortage, loan delay, interest rate, business environment, poor supervision, improper management, loan deviation business cash flows and family expenses as reflected by the P-value which is than 5%. This therefore implies that a reduction in the amount requested by the entrepreneur, high interest rate, a delay in the loan process, poor business environment, poor supervisions of the business, improper management, deviation of loan to other business and non-business activities poor cash flows and family expenses leads to the SMEs fail to honour their loan obligations. More to that, the findings from the survey indicated that loan transaction cost do not significantly leads to loan defaults among the SMEs as evidenced by the P-value which is greater than 5%.

Table 2: Standardized Regression Weights of Default model

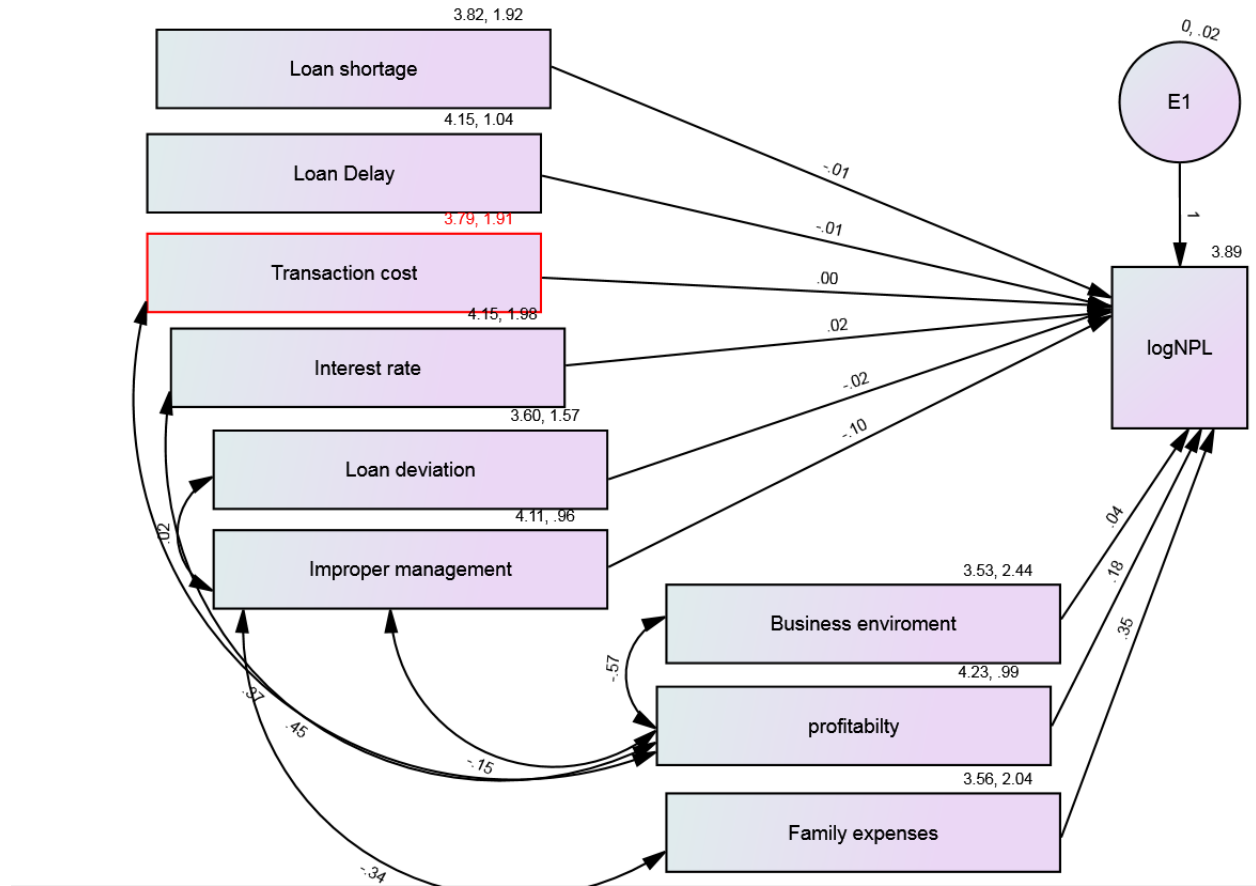|			Estimate
logNPL	<---	Business environment	.116
logNPL	<---	Profitability	-.305
logNPL	<---	Family expenses	.852
logNPL	<---	proper Management	-.170
logNPL	<---	Loan deviation	-.042
logNPL	<---	Interest	.049
logNPL	<---	Transaction costs	-.006
logNPL	<---	Loan delay	.025
logNPL	<---	Loan shortages	.031

Source: Survey Data 2020

Table 2 shows the regression estimates of the study variables. The results from the survey show that an increase in loan shortage by 1 standard deviation, the log NPL increases by 0.031 standard deviations. The results further show that when the loan delay increases by 1 standard deviation, log NPL increases by 0.025 standard deviations. When the transaction costs increase by 1 standard deviation, log NPL decreases 0.06 standard deviations. Furthermore, when the interest rate increases by 1 standard deviation, the log NPL will go up by 0.049

The results further show that when business environment increases by 1 standard deviation, log NPL decreases by 0.116 standard deviations. When improper management increases by 1 standard deviation, log NPL decreases by 0.170 standard deviations. An increase in the loan deviation up by 1 standard deviation, log NPL goes down 0.042 standard deviations. When the profitability of the business goes up by 1 standard deviation, log NPL goes down by 0.305 standard deviations. More to that, an increase in the family expenses by 1 standard deviation, log NPL goes up by 0.852 standard deviations

$$LogNPL = 3.89 + 0,031LS + 0.025LD - 0.006TC + 0.049IR - 0.116BE + 0.170IM + 0.42LV - 0.305 + 0.852FE$$

3.2 Unstandardized Factor Analysis

Source: Survey Data 2020

Figure 2: Unstandardized default Model

Table 3 Means of the Default model

	Estimate	S.E.	C.R.	P	Label
Loan shortage	3.820	.071	53.909	***	
Loan Delay	4.148	.052	79.692	***	
Transaction cost	3.786	.071	53.580	***	
Interest rate	4.148	.072	57.688	***	
Business environment	3.534	.080	44.260	***	
Improper management	4.109	.050	82.433	***	
Loan deviation	3.596	.064	56.192	***	
profitability	4.232	.051	83.733	***	
Family expenses	3.560	.073	48.738	***	

Source: Survey Data 2020

Figure two and Table 3 shows the significance of the mean of the study variables. The results from the survey shows that probability of getting critical ratios as large as 53.909, 79.692, 53.580, 57.688, 42.260, 41.137, 82.433, 56.192, 83.733, 78.965 and 48.738 in absolute value is less than 0.001. In other words, the mean of loan shortages, loan delays, transaction costs, interest rate, business environment, poor supervision, improper management, loan deviation, profitability business cash flows and family expenses respectively is significantly different from zero at the 0.001 level (two-tailed)

Table 4 Covariance of Default model

			Estimate	S.E.	C.R.	P	Label
Family expenses	<-->	Loan deviation	-.339	.072	4.679	***	
Profitability	<-->	Loan deviation	-.153	.041	3.714	***	
Business environment	<-->	Profitability	-.567	.077	7.372	***	
Improper management	<-->	Interest	.020	.060	.332	.740	
Profitability	<-->	Interest rate	.447	.067	6.680	***	
Profitability	<-->	Loan delay	.366	.063	5.773	***	

Source: Survey Data 2020

In table 4 the researchers tested the significance of the covariance of some of the study variables in to predict their impact in predicting the dependent variable. The results from the survey show that the probability of getting a critical ratio as small as4.679 in absolute value is .000. In other words, the covariance between loan deviation and family expenses is significantly different from zero at the 0.01 level (two-tailed).Furthermore, the results show that the probability of getting a critical ratio as large as 3.714 in absolute value is less than 0.001.

This means that the covariance between loan deviation and profitability is significantly different from zero at the 0.001 level (two-tailed).The results further indicated that the probability of getting a critical ratio as large as 7.372 in absolute value is less than 0.001. This implies that, the covariance between business environment and business profit is significantly different from zero at the 0.001 level (two-tailed).

The probability of getting a critical ratio as large as 6.680 in absolute value is less than 0.001. In other words, the covariance between interest rate and profitability is significantly different from zero at the 0.001 level (two-tailed). The results further show that the probability of getting a critical ratio as large 0.33 in absolute value is .740 In other words, the covariance between improper management and interest is not significantly different from zero at the 0.05 level (two-tailed).In addition, the probability of getting a critical ratio as large as larger as 5.773 in absolute value is less than .0.001. This means that the covariance between Loan delay and profitability is significantly different from zero at the 0.05 level (two-tailed).

3.3 Model Fit Summary

Table 5: CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	41	184.516	49	.000	3.765
Saturated model	90	.000	0		
Independence model	12	2315.999	78	.000	29.692

Table 6: Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.960	-.937	.964	-.948	.953
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table 7: RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.078	.066	.070	.000
Independence model	.074	.064	.083	.000

Source: Survey Data 2020

The researchers tested the fitness of the model to predict the relationship between the study variables. The test was made using the three measures of the model fit which are absolute model fit, incremental model fit and parsimonious fit. The result on the absolute fitness of the model was done using the probability of Chi-square and the root mean square error adjustment. The results show that the probability of Chi-square is 0.000 which is below 5% thus the model is fit to predict the relationship. The RMSEA test is equal to 0.078 which is below 0.08 and thus the model is fit. The researchers also tested the incremental model fit using the comparative fit index (CFI). The results showed a CFI of 0.953 which is above 0.9, hence indicating the fitness of the

model. The parsimonious test is equal to 3.765 and it is below 5.0 thus the model fit to predict the relationship between the study variables.

4. Discussion

The results indicated that loan shortages, loan delay, transaction costs, interest rate, loan deviation, improper management, business environment, profitability and family expenses greatly explains the failure of micro and small businesses inability to honour their loan obligations. The results relates to findings from the previous studies. The study conducted by Gatimu and Frederick (2014) show a strong correlation between loan shortage, loan delay, transaction cost, interest rate and non-performing loans. Similar findings are seen in the study conducted by Kamanza (2014) who identified strong correlation between loan shortage, loan deviation, loan delay and nonperforming loans.

The results further revealed that that loan shortages, loan delay, interest rate, loan deviation, improper management, business environment, profitability and family expenses significantly leads to loan defaults among micro small and medium enterprises. The results conform to the findings from the previous studies.

The study conducted by Abdulla, et al. (2011) show that loan deviation, poor cash flows, high interest rate, family expenses leads to loan defaults within SMEs. Similar findings are also seen in the study conducted by Munene (2013) who show that improper management, shortage of loan, long processing time and business cash flows among the factors that causes loan defaults. However, there was a contradiction between transaction cost and loan defaults. The results indicated that transaction costs do not significantly leads to loan defaults. This contradicts to the findings from the previous studies. The study conducted by Munene (2013) show that high loan transaction costs leads to loan defaults within the SMEs.

The results revealed a positive relationship between loan shortage, loan delay, transaction costs, interest rate, improper management, loan deviation, family expenses and the non- performing loans. The results further indicated that there is a negative relationship between business environment, poor supervision, profitability, business cash flows and the non performing loans. The results concur with results from the previous findings. The study conducted by Munene

(2013) show that there is a positive relatationship between loan shortage, loan delay, transaction costs and non performing loan within the SMEs. On the otherhand,Egu et al. (2016) show a negative ralationship between business enviroment, profitability, family expenses and the non-performing loans

5. Conclusion and Recommendations

The results revealed a significant relationship between loan shortage, loan delay, interest rate, business environment, management, supervision, Loan deviation, business cash flow, family expenses and the non-performing loan. The further revealed a positive relationship between loan shortage, loan delay, transaction cost, interest rate, family expenses and non-performing loans. Similarly a negative relationship was revealed between business environment, management, profitability and business cash flows. Furthermore, the results indicated a strong correlation between the dependent and the independent variable as evidenced by R-square of 97.1%.

The findings revealed that there is a significant relationship between loan deviation and non-performing loans. More to that, the results revealed a significant covariance between loan deviation and family expenses and business cash flows. This means part of the loan money is deviated to other business activities and family expenses. This affects the business cash flows hence leading to the SMEs to failure to meet their loan obligations. Therefore entrepreneurs should be trained on financial discipline and how to manage the loan finance.

Delay in the approval process of the loan is one the significant factor that fosters non-performing loans within the SMEs. This makes many entrepreneurs to lose business opportunities as they are waiting for the loan approval. A system should be put in place to ensure quick approval of loan.

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