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## **DETERMINANTS OF LOAN DEFAULTS IN TWO SELECTED FINANCIAL INSTITUTIONS IN SUMBAWANGA MUNICIPALITY, TANZANIA**

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### ABSTRACT

**Purpose:** The study intended to determine business and FIs characteristics influencing likelihood of loan borrower defaults in two selected financial institutions (FIs) in Sumbawanga Municipality.

**Methodology:** Purposive sampling technique was used to National Microfinance Bank (NMB) and Cooperative Rural Development Bank (CRDB). Simple random sampling was used to select a total of 158 respondents out of 158 groups of loan borrowers. The study used cross-sectional research design to gather information. The study used both primary data and secondary data. A structured and semi-structured interview was used to collect primary data. Secondary data were collected through a documentary review of published and unpublished materials related to loan default in Financial Institutions. Binary logistic regression model was used to estimate the factors influencing the likelihood of borrowers to default and descriptive statistic was used to analyse loan default rate.

**Findings:** Results revealed that rate of loan defaults has been decreasing from 9.5% to 2% for the period between 2013 and 2018 due to proper screening of borrowers as well as credit rationing. Age of respondents, business management education, business type, loan use and interest rate charges were statistically significant factors influencing borrower defaults in the study area.

**Recommendations:** Based on findings, the study recommends, any appropriate policy measures directed on provision of business management education, appropriate loan use, entrepreneurial skills and reduced interest charges will significantly reduce rate of loan borrower defaults. Capacity of loan borrower should be built through regular training and seminars workshops to enable them to management their businesses and therefore improve their economic status.

**Keywords:** *Loan defaults, Likelihood, Financial Institutions.*

## 1.0 INTRODUCTION

Worldwide, financial institutions (FIs) play crucial role in the economic growth of any country. No one can deny the economic importance of financial institutions in any developed or developing country. These FIs not only float the credit flow in the economy but also enhance the productivity by stimulating the investment (Awan et al., 2015). Economic growth in any country is not possible without a sound financial sector. Like in any country in the world, financial institutions in Tanzania are doing the same. Through long-term vision of FIs, banks are supposed to provide sustainable financial services to the economically-active people who are able to services their loans (Nyamsogoro, 2010). Remarkably, FIs provides loans and advances to customers in various sizes to assists active business people and the entrepreneurs in stabilizing existing sources of income and enables micro, small medium and large enterprises (MSMLEs) to grow.

In the development of market-based, FIs provides MSMLEs with loans and other financial services on a sustainable basis (URT, 2010). Although, provision of loans to active business people and the entrepreneurs is an effective way to improve entrepreneurial behaviour and builds business integrity, there is number of challenges facing these FIs. The FIs faces problems of inadequate funds to cover the entire borrowers, insufficient support from government, improper regulations, limited management capacity and loan defaults (Dahir, 2015). Among these challenges, loan default is the major problem that threatens the financial operations of many FIs (Johannsen *et al.*, 2007; Hermes and Lensink, 2011; Awan *et al.*, 2015). Loan default is a problem not only affects bank's profitability but also affects the economic condition of the country.

Recent, the loan default rate in developing countries tends varies between one and 11 percent which is significantly high compared to internationally accepted rate of loan default which range from one to three percent (FSDT, 2018). Since loan default weakens the financial operations of FIs, various efforts and strategies have been put in place to reduce this problem. These strategies include group lending, mandatory savings deposit to the amount borrowed, rewards for on - time repayments in form of future access to higher loan amounts, penalties for late payment such as fees and denial of higher loan amounts (Mulema, 2011). In addition, new loan applicants are scrutinized before the credit facility is granted to them. Despite all the mentioned strategies, loan defaults rate in FIs and Microfinance Institutions (MFIs) is alarming. The existing load defaulter's rate in Tanzania varies between two and 11 percent which is high compared to the international acceptable default rate of 3% (Addae-Korankye, 2014). The literature indicates that loan default is associated with social and economic factors (Agarwal, 2009; Marjo, 2010; Bichanga, 2013). Although various studies analyses social and economic factors affecting loan repayment, there is limited information on how current business and FIs characteristics influence loan default rate. This study therefore aimed at determining business and FIs characteristics influencing the likelihood of loan default in Sumbawanga Municipality as well as assess loan default rate in two the selected financial Institutions for the period between 2013 and 2018.

## 2.0 METHODOLOGY

### 2.1 Study Area

The study was conducted in Sumbawanga Municipality. Sumbawanga Municipality is one among two councils found in Sumbawanga District, in Rukwa Region. The Sumbawanga District is located in south-west highland of Tanzania. It is situated between latitude 7.8<sup>0</sup> and 9<sup>0</sup> south of the equator and longitude 31<sup>0</sup> and 32.3<sup>0</sup> east of Greenwich. Sumbawanga Municipality is the headquarters of Rukwa region and it's the economic hub (URT, 2013). The study area was chosen because it has many microfinance institutions compared to other councils.

### 2.2. Sampling Procedure and sample size

The study employed both purposive sampling and simple random sampling techniques to select MFIS and sampling frame. The sampling frame of the study was all loan groups borrowed from NMB and CRDB at Sumbawanga municipality. Purposive sampling technique was used to select NMB and CRDB out of 6 MFIs found at the study area. NMB and CRDB were selected because are the biggest financial institutions (FIs) offering microfinance services in the study area. These FIs offers services to both individual and group-based loans. Simple random sampling technique was used to select loan group borrowers from NMB and CRDB. A total of 79 loan groups were selected from each FIs to make a grand total of 158, out of 784 groups identified for both FIs. Finally, one respondent was selected from each group of loan borrower. Equal sample size was taken from each group because number of group borrowers did not differ between two financial institutions (table 1).

**Table 1: Number of registered group of borrowers from selected FIs in 2018**

| MFI          | Group lending Model | Number of Borrowers | Percent       |
|--------------|---------------------|---------------------|---------------|
| NMB          | 396                 | 3,206               | 50.5          |
| CRDB         | 388                 | 2,282               | 49.5          |
| <b>TOTAL</b> | <b>784</b>          | <b>5,558</b>        | <b>100.00</b> |

*Source: Field data, 2019<sup>1</sup>*

The sample size was obtained using formula as shown by Kothari (2004) as presented hereunder:

$$n = \frac{z^2 * p * q * N}{e^2(N - 1) + z^2 * p * q}$$

**Where**

N = Number of loan groups, i.e., 784

n = Size of loan groups (sample size)

e = Acceptable error (estimate should be within 2% of true value)

<sup>1</sup> Figures from this table were extracted from CRDB and NMB annual Report Published in 2013 and (2018)

$p$  = standard deviation of population; 0.02

$z$  = 2.005 (area of normal curve for the given confidence level)

$q$  = 1- 0.02

$$n = \frac{(2.005)^2(0.02)(1 - 0.02)(784)}{(0.02)^2(784 - 1) + (2.005)^2(0.02)(1 - 0.98)}$$

$$\frac{61.77}{0.39199}$$

$$n = 158$$

Hence, the sample size selected was 158 respondents. A structured and semi-structured interview was used to collect primary data from each 158 loan group borrowers. Secondary data were collected through documentary sources including; FIs annual reports and other documents such as journals (published and unpublished) and websites related to loan default problem. Structured interview method through questionnaire was chosen as important method of collecting data from the respondents. An in-depth interview conducted to key informants by using checklist.

### 2.3 Analytical Framework

Data collected were analysed using both descriptive statistics and empirical model. Descriptive analysis was used to determine rate of loan borrower defaults in selected FIs for the period between 2013 and 2018 as well as binary logistic regression model was applied to determine factors influencing the likelihood of loan default in the study area. Since this study has qualitative response variable, which can take only two values, that is 1 if the borrower defaults loan repayment for more than 30 days and 0 if the borrower did not delay loan repayment for more than 30 days. The common approaches used for probability model are either the linear probability (LPM), logit, probit and tobit models (Gujarat, 2009). Since the probability of loan default is nonlinear in  $x_i$  and  $\beta$ 's, it is not possible to determine factors influencing the likelihood of loan default using LPM. Hence, the study used the logit model. The structural model is presented in 1.

$$Y_i = x_i\beta + \varepsilon_i \dots \dots \dots (1)$$

Where

$Y_i$  = 1 if the borrower defaults loan repayment for more than 30 days;

$Y_i$  = 0 if the borrower did not delay loan repayment for more than 30 days;

$x_i$  – is a vector of values of the  $i^{th}$  observation;

$\beta$  – is vector of parameters; and

$\varepsilon_i$  is error term.

If we have a single independent variable, the model can be rewritten as



$$Y_i = \alpha + \beta x_i + \varepsilon_i \dots \dots \dots (2)$$

The conditional expectation of  $Y_i$  given  $X_i$  is expressed as

$$E[Y_i | X_i] = \alpha + \beta x_i \dots \dots \dots (3)$$

When  $Y_i$  is binary random variable, the conditional expectation  $Y_i$  is the probability that the event occurs. This can be expressed as

$$E[Y_i | X_i] = [1 * \Pr(Y_i = 1 | X_i)] + [0 * \Pr(Y_i = 0 | X_i)] = \Pr(Y_i = 1 | X_i) \dots \dots \dots (4)$$

Hence, the LPM equation 3 can be compared with equation 4, which produce equation 5

$$\Pr(Y_i = 1 | X_i) = \alpha + \beta x_i \dots \dots \dots (5)$$

This is linear probability model which can be estimated by Ordinary Least Squares method (OLS). Since the probability of loan defaults is nonlinear in parameters ( $\beta$ 's) and independent variable  $X_i$ , it is inappropriate to use OLS to estimate rate of loan defaults in two selected financial institution. Therefore, the study used logit regression model to estimate the results. However, in order to use logit regression model, three assumptions must be adhere to first, the threshold or cutpoint must be equal to zero ( $\tau = 0$ ); secondly, the conditional mean of the error term follows a standard logistic distribution ( $E(\varepsilon / x) = 0$ ) and lastly, the conditional variance of disturbance term is constant,  $\text{var}(\varepsilon / x) = \frac{\pi^2}{3}$ . Hence, the logit regression model can be presented as.

$$P_i = E[Y_i = 1 | X_i] = \frac{1}{1 + e^{-(\alpha + \beta_1 X_i)}} \dots \dots \dots (7)$$

This is the commulative logistic distribution function. for ease of exposition, equation 7 can be rewritten as

$$P_i = \frac{1}{1 + e^{-Z}} = \frac{e^Z}{1 + e^Z} \dots \dots \dots (8)$$

Where

$$Z = \alpha + \beta_1 x_i$$

If  $P_i$ , the probability of the borrower defaults, then  $1 - P_i$  is the probability of borrower did not defaults, the probability of did not defaults, is

$$1 - P_i = \frac{1}{1 + e^{Z_i}} \dots \dots \dots (9)$$

Thus, the ratio of probability that loan borrower will default to the probability of borrower will not defaults, can be presented as

$$\frac{P_i}{1 - P_i} = \frac{1 + e^Z}{1 + e^{-Z_i}} = e^{Z_i} \dots\dots\dots(10)$$

Where

$\frac{P_i}{1 - P_i}$  is odd ratio in favour of a borrower to default that is the ratio of the probability that loan default occurs.

Since we do not observe  $P_i$  but only observe the outcome  $Y = 1$ , if the borrower defaults and  $Y = 0$ , if the borrower defaults did not

$$\Pr(Y_i = 1) = P_i \dots\dots\dots(11)$$

and

$$\Pr(Y_i = 1) = P_i \dots\dots\dots(12)$$

$$\Pr(Y_i = 0) = 1 - P_i \dots\dots\dots(13)$$

The ODDs Ratio equation 10 can be rewritten as

$$Odds\ ratio = \frac{\Pr(Y = 1 / X)}{1 - \Pr(Y = 1 | X_i)} = e^{Z_i} \dots\dots\dots(14)$$

Taking a natural logarithm of equation 13, we get likelihood function

$$L_i = \ln \left[ \frac{\Pr(Y_i = 1 | X_i)}{1 - \Pr(Y_i = 1 | X_i)} \right] = Z_i = \alpha + \beta_i x_i \dots\dots\dots(15)$$

This likelihood function can be easily estimated by Maximum Likelihood Method and creates consistent estimators  $\beta$ 's. hence, this model can be estimated using SPSS or STATA. However this study used SPSS to generate results for loan defaults of the two selected financial institutions in Sumbawanga municipality.

### 2.4 Empirical model for estimation of loan borrower defaults

The literature suggest that loan borrower defaults is the function of social and economic factors such as Age of the borrower, business education, martial status of respondent, education level, business type, gender of the borrower, family problem, uses of loan, weak legal actions borrowers asset ownership, past experience and interest rate. Hence, log likelihood function equation 14, can be expressed as

$$L_i = \ln \left[ \frac{\Pr(Y_i = 1 | X_i)}{1 - \Pr(Y_i = 1 | X_i)} \right] = \alpha + \beta_1 AG + \beta_2 GND + \beta_3 MART + \beta_4 EDU + \beta_5 BUSTYP + \beta_6 .BUSEDU + \beta_7 MFILOCATAT + \beta_8 FAMPROB + \beta_9 LOANUSE + \beta_{10} WEAKLEG + \beta_{11} ASTOWN + \beta_{12} PASTEXP + \beta_{13} INTEREST \dots\dots\dots(16)$$

Where: *AG* = age of the borrower (years); *GND* = Gender (coded 1 if respondent is male; 0 otherwise); *MART* = marital status of respondent (coded 1 for married and 0 for other categories within a loan group); *EDU* = education level (1 if respondent attended primary education and “0” for other categories); *BUSTYP* = business type (1 if business generate frequent revenue weekly and “0” for otherwise); *BUSEDUC*= business education (1 if respondents acquired business education and “0” for otherwise); *FILOCAT* = FI Location (1 if distance to FI is within 1-3 km and 0 for more than 3 km); *FAMPROB* = family problem (1 if respondent had death within a loan group and 0 for otherwise); *LOANUSE* = uses of loan ( coded 1 if loan was used for business purpose and 0 for otherwise); *WEAKLEG* = weak legal actions (1 if FI has weak legal action toward loan defaulters and 0 for otherwise); *ASTOWN* = borrowers asset ownership (1 if respondent own assets accepted as collateral and 0 for otherwise); *PASTEXP* = past experience ( 1 if respondent has past experience of the business he/she owns and 0 he/she has not) and *INTEREST* = Interest rate charged by FIs. The results for this model are presented in section 3.2 of this study.

### 3.0 RESULTS AND DISCUSSION

#### 3.1 Demographic characteristic of Respondents

Table 1 presents demographic characteristic of the respondents. According to this study, majority of the respondents (43%) with age group between 36-54 were involved in borrowing loans from NMB and CRDB banks, followed by respondents whose age varies between 18 and 35 years old (32%). The smallest percentage (25%) was represented by age group between 54 and 65. According to the results, age group between 36 and 65 are very energetic and enthusiastically to work on their own business, hence they are looking loans from MFIs to get self- employment. Results also shows that majority of respondents (66.4%) had primary school, 15% of respondent had secondary school, 11.2% had first degree, 4.4 had master’s degree and 3.0% had vocation skills. The results indicate the pyramid structure of education level in Tanzania whereby lower level of education comprises majority of people than the high level education. This could be attributed by less educated people are believed to be good risk takers such that they seek more loans compared to more educated people.

**Table 1: Demographic Characteristics of Respondents**

| Variable                       | Categories       | Frequency  | Percentage (%) |
|--------------------------------|------------------|------------|----------------|
| Age groups of respondents      | 18 - 35          | 50         | 32             |
|                                | 36 - 53          | 68         | 43             |
|                                | 54 - 65          | 40         | 25             |
|                                | <b>Total</b>     | <b>158</b> | <b>100</b>     |
| Education level of respondents | Primary school   | 105        | 66.4           |
|                                | Secondary school | 24         | 15.0           |
|                                | First degree     | 18         | 11.2           |
|                                | Master’s degree  | 7          | 4.4            |
|                                | Vocational       | 4          | 3.0            |
|                                | <b>Total</b>     | <b>158</b> | <b>100</b>     |



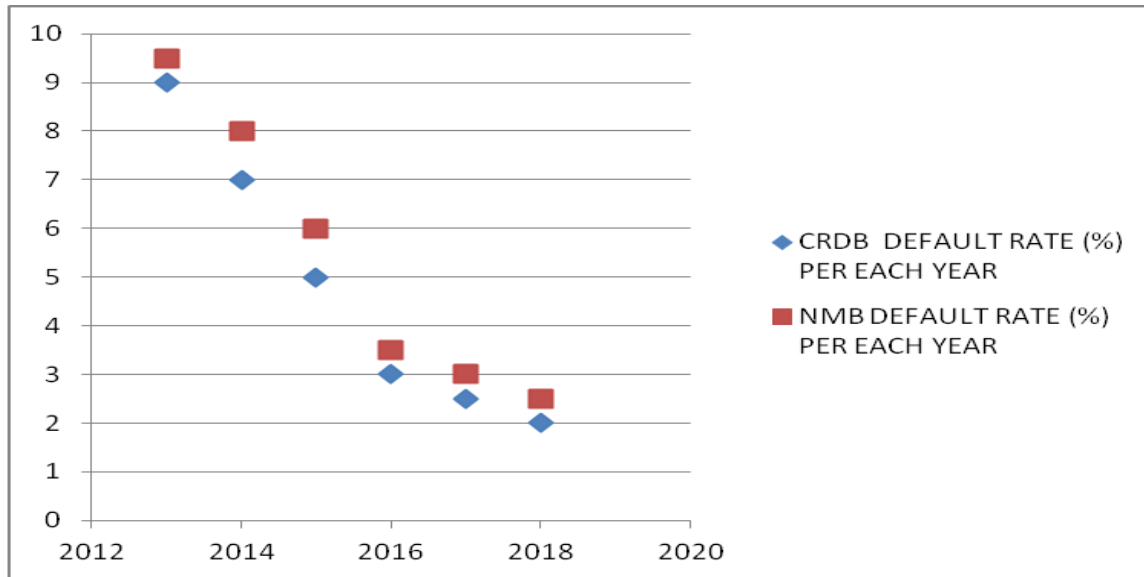
|                               |              |            |            |
|-------------------------------|--------------|------------|------------|
| Sex of respondents            | Male         | 85         | 54         |
|                               | Female       | 73         | 46         |
|                               | <b>Total</b> | <b>158</b> | <b>100</b> |
| Marital Status of respondents | Married      | 115        | 73.7       |
|                               | Single       | 18         | 11.4       |
|                               | Divorced     | 12         | 7.6        |
|                               | Widow        | 10         | 6.3        |
|                               | <b>Total</b> | <b>158</b> | <b>100</b> |

*Source: Survey Data, 2019*

Moreover, majority of loan borrowers (54%) were male respondents (Table 1). This means that majority of men have been engaging in seeking loans from MFIs compared to women. This might be explained by the nature of the society in the study area and Tanzania in general, whereby men own land, houses and other valuable assets, which are used as collateral compared to women. This results comply with Mensah (2012) who reported that majority of valuable assets used as collateral are owned by men as a result men have a great access to seek loans from MFIs. Results in table 1 also indicate marital status of respondents. The majority of loan borrowers (73.7%) were married and followed by single (11.4%). The findings explain that married people engage more in looking loans in MFIs than other marital status. Further analysis suggest that married couples have required assets such as houses, plots and other immovable assets which are required as assets to secure loans compared to single, divorced and widowed.

### **3.2 The extent of loan default rate in selected FIs for a period of 2013 to 2018**

The extent of loan defaults rate for a period of 2013 to 2018 was ascertained using records of borrowers from a loan group. This extent was determined by calculating the ratio of the total borrowers served to the number of borrowers who have defaulted within a group. This ratio is expressed in terms of percentage as presented in Figure 1. In both FIs the rate of loan defaulters have been decreasing from year 2013 to 2018. The study reveals that in both FIs the default rate decreased between 9.5 percent to 2 percent for the period of five years, (from 2013 to 2018), although it is decreasing but still the borrowers default is there.



**Figure 1:** Trends of loan default in selected FIs for a period of 2013 to 2018

Source: Survey data, 2019

The study shows a decrease in loan default rate for the period of five years, from 2013 to 2018 for both FIs. This could be explained by various reasons such as improvements of lending process, loan screening and the conditions/terms for issuing a group loan. This can also explained by advancement in ICT technology which enable FIs to track loan repayment records report timely before the due date.

### 3.3 Goodness of Model fit and coefficient of the determination

Prior to discuss factors influencing the likelihood of loan defaults, present study tested goodness of fit of the binary logistic regression model and coefficient of the determination. Table 2 presents results of Hosmer and Lemeshow test, which measures overall goodness of fit of the estimated model. The Chi-square results is 8.288 which is not statistically at 5% level ( $\chi^2 = 8.288; \alpha = 0.05$ ). This implies that collectively social and economic factors are the best fit for the data set

**Table 2: Hosmer and Lemeshow Test**

| Step | Chi-square | Df | ig.   |
|------|------------|----|-------|
| 1    | 8.288      | 8  | 0.614 |

Source: Survey data, 2019

Moreover, result in table 3 shows model summary. The finding indicates that coefficient of determination ( $R^2$ ) for estimated model was 0.452 (i.e., *Cox and Snell*  $R^2 = 0.452$ ), which is relatively higher compared to generally acceptable standard coefficient of determination (at least  $R^2 = 0.35$ ). This means, the explanatory variables included in the model explained only

45.2% of variation in borrower defaults; other percent is explained by factors which are not included in the models (Table 3).

**Table 3: Model Summary**

| Steps | -2log likelihood     | Cox & Smell R Square | Nagelkerke R Square |
|-------|----------------------|----------------------|---------------------|
| 1     | 200.812 <sup>a</sup> | 0.452                | 0.521               |

Source: Survey data, 2019

### 3.4 Determinants of loan defaults in selected MFIs

Results in Table 4 indicate estimates of logistic regression model (equation 15 specified in section 2.4 in this study). The results indicates that age of the respondents, Business management education, bussiness type, loan use and bank interest were negative and statistically significant at one and five percent level of significant. The odd ratios (column with heading Exp (B)) for these variables are less than one, implyaing that there is significant negative relationship between these independent variables and response variable (loan defaults).

**Table 4: Logistic Estimated Parameters**

| PREDICTOR | B        | S.E   | Wald   | Df | Sig   | Exp(B) |
|-----------|----------|-------|--------|----|-------|--------|
| Constant  | 4.117**  | 1.609 | 6.544  | 1  | 0.011 | 61.36  |
| AGE       | -0.761*  | 0.361 | 4.432  | 1  | 0.035 | 0.467  |
| GND       | 0.391    | 0.496 | 0.621  | 1  | 0.431 | 1.479  |
| MART      | 0.156    | 0.477 | 0.108  | 1  | 0.743 | 1.169  |
| EDU       | 0.514    | 0.378 | 1.847  | 1  | 0.174 | 1.672  |
| BUSNTYP   | -1.596** | 0.48  | 11.069 | 1  | 0.001 | 0.203  |
| BUSEDUC   | -1.409** | 0.507 | 7.734  | 1  | 0.005 | 0.244  |
| MFILOCAT  | 0.633    | 0.868 | 0.532  | 1  | 0.466 | 1.883  |
| FARMPROB  | 0.072    | 0.413 | 0.031  | 1  | 0.861 | 1.075  |
| LOANUSE   | -1.588** | 0.507 | 9.814  | 1  | 0.002 | 0.204  |
| WEAKLEG   | -0.344   | 0.652 | 0.279  | 1  | 0.597 | 0.709  |
| ASTOWN    | -0.423   | 0.668 | 0.401  | 1  | 0.527 | 0.655  |
| PASTEXP   | -0.631   | 0.856 | 0.543  | 1  | 0.461 | 0.532  |
| INTEREST  | -1.38*   | 0.637 | 4.7    | 1  | 0.03  | 0.252  |

Source: SPSS output; \*\* and \* indicate significance at 1% and 5% respectively

**Note:**

*A column with the heading “B” represents coefficient of variables; column with the heading S.E presents the standard error for the coefficient values; Df is the degree of freedom for the wald test values; column with the heading Sig. represents level of significant of individual variables and column “Exp (B)” gives the ODDS ratios of each variable.*

The results show that the odds ratio for age of the borrowers is less than one (0.467) and the coefficient was significant at 5%. This implies that one year increase in age of the borrowers was associated with 53.3% chance of reducing loan defaults, other factors remaining constant. The results further suggests that borrowers in group between 18 to 35 years old are more likely to default than older age groups in the selected FIs. This finding is consistent with Mokhtar (2012) who claim that the older borrowers would be more responsible and disciplined in repaying their loan than younger borrowers. Coleman (2012) confirm that older borrowers are more risk adverse, and therefore the less likely to default.

Morover, odds ratio of business management education among the borrowers was 0.244 and the coefficient was statistically significant at 1% level of significance. This implies that an acquisition of business management education was associated with 75.6% likelihood of reducing loan borrower defaults, other factors remaining constant. This results suggest that borrowers who have management skills acquired through trainings or seminars manage their businesses more prudently and are less likely to default compared to borrowers managing their business without business education. This result collaborates with the findings of Awan (2015) who ranked lack of business education as the 4<sup>th</sup> important cause of loan default in the study conducted in Pakistan. Oladeebo (2008) claim that borrowers who do not have formal education are likely to have inadequate knowledge of loan acquisition and management, thereby making them unable to repay the loans given to them. Whereas, borrowers with high level of education are more likely to repay their loan since they occupy higher positions and with high income levels.

Furthermore, coefficient of business type was significant at 1% and had the odds ratio of 0.203. This implies that businesses with frequent business transactions (Revenue can be obtained in daily basis) was associated with 79.7% chance of reducing loan defaults relative to businesses with less transactions. Futher analysis suggests that businesses which are able to generate enough revenue to meet the weekly repayment schedules such as food vending, retail shops, and motorcycle operators (bodaboda) are likely to reduces the likelihood of loan defaulting compared to borrowers involved in businesses such as saloon and cloths selling. This finding is supported by Mokhtar *et. al.*(2012) where it was observed that the lower revenue cycle in businesses creates loan repayment problems to borrowers.

In addition, loan use was significantly associated with the loan defaulting likelihood at 1% level. The odds ratio of loan use was 0.204, suggesting that the use of loan for non business purposes is likely to increase loan default by 79.6% relative to business uses, other factors remaining constant. The possible explanation for this could be poor economic status because poor borrowers are usually pre-occupied with addressing their social problems ranging from shortage of food, lack of seeds for planting and paying medical bills among others, as such they lack revenue to repay loan. This finding is in line with that of Onchangwa *et al.* (2013) who

ascertained that misallocation of loans in unproductive activities by borrowers reduced their investments and this posed a high loan defaults in Kenya.

The coefficient for interest charged had a negative and statistically significant ( $\alpha = 0.05$ ) relationship with a loan borrower defaults. This variable also had an odds ratio of 0.252. This implies that one percent increase in interest charged by FIs was associated with 74.8% chance of increasing loan defaults, other factors remaining constant. This means that high interest rates impose high cost to the borrowers, making loan repayment difficulty. This finding concur with Okpugie (2009) who found out that high interest rate charged by financial institutions is a major cause of default among the borrowers.

#### **4.0 CONCLUSION**

This study applied binary logistic model to analyse factors influencing likelihood of loan borrower defaults in two selected financial institutions in Sumbawanga Municipality. The results show that the loan default existed in both financial institutions and it has decreased trend (9.5 to 2%) for the period between 2013 and 2018. Age of respondents, business management education, business type, loan use and interest rate charges were statistically significant factors influencing borrower defaults in the study area.

#### **5.0 RECOMMENDATIONS**

Based on findings, the study recommends, any appropriate policy measures directed on provision of business management education, appropriate loan use, entrepreneurial skills and reduced interest charges will significantly reduce rate of loan borrower defaults. Capacity of loan borrower should be built through regular training and seminars workshops to enable them to manage their businesses to improve and sustain their economic status.

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