



# A Study on Impact of Interest Rates on Credit and Loan Repayment in Ethiopia With Reference To Credit Cooperative Unions

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**Abstract:** Interest rate is an impact on demand for credit because the higher the cost of loan is leads to inability to repay the loaned amount by customers. Again the lower the interest rate by itself also have impact on the development of investment in the country, again saving is not takes place. So it is clear that must manage properly for economic development. From the lenders perspective, the interest rate is considered as the premium paid to savers for making surplus funds available to financial intermediaries. From the borrower's point of view, the interest rate is the user cost of capital incurred by using funds for investment. This paper focuses on to identify on impact of interest rates on credit and loan repayment in Ethiopia with reference to credit cooperative unions. To achieve this objective the study was employed by using both descriptive and explanatory research design with quantitative and qualitative methods, the type of sampling techniques applied is simple random sampling, which is used to select sample co-operatives and members. Since the members of the cooperatives are homogenous in nature, then 100 samples are selected for the study. To these end the main findings of the study, the result shows that the percentages of defaulter respondents decrease from youngsters group to elders group. Proportion of defaulting group was higher in respondents who were illiterate and obtained elementary school level, whereas, the percentages of non-defaulters increases as their level of education increases. The highest proportion of defaulters respondents were found in the service providing. Whereas, better repayment performance had shown, who engaged in the businesses of provision shop, and small restaurant? However, respondents were due to other reasons they were not willing to pay. The descriptive statistics findings shows that there were significant association between dependent variable with respect to education level, loan diversion, loan size, training, time laps between loan application and disbursement, repayment period and all business types. Researcher found the significance difference between defaulters with respect to age, family size, and number of dependent's, business experience, repeatedly borrowing, and supervision.

**Keywords:** Interest rates in Ethiopia, impact of interest rates in Ethiopia, Interest rates impact on credit and loan repayment, credit and loan repayment in credit cooperative unions. Credit cooperative unions in Ethiopia.

## I. INTRODUCTION:

### **Introduction about topic.**

The existence of clear and accommodating governmental policy and all-inclusive structures and the government's commitment to transform the subsistence economy have created conducive environment for the development of voluntary based cooperatives in the country. Microfinance has been addressed by many to be one of the most effective tools in fighting global poverty in the developing world. It has been especially effective and beneficial in bringing products such as savings deposits, insurance and credit to the customers. (Fobozzie frank. J Foundations of financial markets and instaurations page 202) there is no one interest rate in any economy. Rather, there is a structure of interest rates. The interest rates that a borrower will have to pay depend on a many of factors.

Experts agree that high interest rates intuitively make it more difficult for poor people to repay micro loans; High interest rates in the sector are generally seen as related to the high operational (and transaction) costs involved in providing high numbers of what are often considered to be relatively small loans. Another commonly cited driver of interest rates is the need for MFIs to achieve financial sustainability. Some have suggested that high interest rates might only justifiably be criticized where they produce excessive profits for MFIs, or where they result from operating inefficiencies that could be avoided (Rosenberg, Gonzalez and Narain, 2009).

With respect to the impact of interest rates on demand and indebtedness, the evidence is inconclusive and the literature raises a number of qualifications to the notion of a straightforward relationship between high interest rates and negative effects on borrower wellbeing, Where high interest rates ensure the profitability and sustainability of the sector, and therefore the capacity of lenders to reach out to poor and remote users, some have argued that the impact of high rates, therefore, needs to be judged against the

relative harm of poor people not having access to microcredit at all (Roodman, 2011). (Mankiw) p.327, Interest rate the higher interest rate in turn has two effects those were: The higher IRT reduce investment, the long run implication is reduced capital accumulation and lower economic growth. And also the higher IRT reduce demand for money, and this allows a higher level of income for any given money supply.

Helms and Reille (2004) argue that interest rate have an impact on demand of credit and repayment.

## II. OBJECTIVES

This paper focuses on to identify on impact of interest rates on credit and loan repayment in Ethiopia with reference to credit cooperative unions.

### **Scope.**

The scope of the study covers the conceptual, geographical and the time scope.

**Conceptual Scope** - the study was focus on examining issues related to identify on impact of interest rates on credit and loan repayment in Ethiopia with reference to credit cooperative unions.

**Geographical Scope** -the research was carried out geographically Ethiopia.

**Time Scope** - The study used the most recent year data from the fiscally year of 2004 up to 2010 e.c

### **Research Gap**

The review of literature has shown some theoretical and empirical gaps that necessitate this study. The direct link between effects of interest rates charged by MFIs to borrowers and the demand for credit did not come out clearly under the studies reviewed. Therefore this study aims at focus on examining issues related to identify on impact of interest rates on credit and loan repayment in Ethiopia with reference to credit cooperative unions. Recent theoretical and empirical work in economics has established that credit markets in developing countries work inefficiently due to a number of market imperfections. The literature cites a number of market imperfections which lead to loan default.

### **These imperfections include:**

- 1) Interest rate ceilings usually imposed by the government
- 2) Monopoly power in credit markets often exercised by informal lenders (Bell et al., 1997)
- 3) Large transaction costs incurred by borrowers in applying for loans
- 4) Moral hazard problems are some of them Koopahi and Bakhshi (2002)

## III. METHODOLOGY

This paper focuses on to identify on impact of interest rates on credit and loan repayment in Ethiopia with reference to credit cooperative unions.

### **3.1 Research Design**

The study was employed by using both descriptive and explanatory research design with quantitative and qualitative methods. The quantitative aspect of the data focused on description of socio- economic variables, loan and related variables, and business related variables and analysis of relationship among the dependent and explanatory variables of the union.

#### **3.1.1 Population and Sampling Technique:**

Currently the number of cooperatives registered by Ledet saving and credit union has reached 137. 10 of them are selected randomly for the study. The type of sampling techniques applied is simple random sampling, which is used to select sample co-operatives and members. Since the members of the cooperatives are homogenous in nature, 100 members from the 10 cooperatives are selected to fill the questionnaires.

#### **3.1.3 Methods of Data Collection**

Data were collected using primary data gathering tools of questionnaire, personal interview, and the researcher's onsite observation. Questionnaires that contain both open and closed ended questions are prepared and distributed to staff members and to members of the cooperatives selected randomly. Interview is also prepared and administered again to both employees and members of the cooperatives.

##### **3.1.3.1 Primary data**

This is system of data collection tool that was got directly from the field. It was collected using questionnaires and interview guides.

##### **3.1.3.2 Secondary data**

The researcher was read related literature relevant to the subject before and during the study (interest rates and loan repayment) in banks, other saving and credit institutions, obtained from previous studies, text books, internet, journals and reports from the union itself.

### 3.2. Methods of data collection and instruments

Administered interviews were given to a selected sample of the union staff and questionnaires to the credit clients to obtain attitudes and information about the influence of interest rates on loan repayment. Questionnaires ensured increased response rate due to their clarity and simplicity. The study collected data from a cross-section of respondents using a combination of study instruments.

#### 3.4 Data Analysis Method:

Data from the field was carefully collected, classified, edited, and basing on clarity, completeness, accuracy and consistence to ensure reliability. Data analysis was based on the objectives of the study and done by use of Statistical Package for Social Sciences on collected data to draw meaningful interpretation and conclusion to give findings and suggestions Findings, which reflect a high magnitude of the problem, were selected from interview, observation and questionnaires. And, the raw data are analyzed, presented, and interpreted to give solutions for the research problem. Some of the data were summarized and presented in tables and graphs. Percentages for these data are calculated in order to facilitate the analysis and to make it presentable for the readers. Since the data collected is more of qualitative in its nature; it is presented by using descriptive analysis.

The model's description was fashioned to capture the relationship between the dependent and independent variables as stated below.

$$DC = f(IR, PRO, OE) \dots\dots\dots (1)$$

Where:-

- DC- is the demand for credit which is defined as the amount of loan applied for by the SME and households.
- IR- is the Effective Interest Rates charged by MFIs,
- PRO- is the annual profit and
- OE- is the Owner's equity.

Multiple Regression analysis was used to analyze the relationship between interest rate and demand for credit or loans as stated above. The independent variables were interest rate, profit and owner's equity. The annual profit was meant to show the viability of the enterprise and likelihood of being considered for loans by the lending institution. The following Multiple Regression Model description will be used to capture the relationship between the variables.

$$Y_t = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \dots\dots\dots (2)$$

Table 3: Operational definition of variables

Symbol	Variable
Y	A Constant term
X1	Credit Demand( loans extended to the SMEs)
EIR	The Effective Interest Rate which is the actual price of the loan that the borrower pays
X2	Annual profit before interest payment (EBIT)
X3	Owner's equity
E	Error term normally distributed about a mean of 0
β1	Interest rate elasticity of demand for credit
β2	Profit elasticity of demand for credit
β3	Owner's equity elasticity of demand for credit
T	Period between 2005 to 2007

Priori restrictions were that  $\beta_1 < 0$ ,  $\beta_2 > 0$ ,  $\beta_3 > 0$ . The relationship acknowledges that interest rate influences the demand for loans (Nehman, 1973). This was expected on both empirical and theoretical grounds.

#### 3.1.2 Types of Data Collected

This study was mainly based on primary data and supported by secondary data when available. The sources of primary data are the employees as well as members of the cooperatives; Secondary data are collected from the cooperatives personal files, websites and reports from the union.

##### 3.1.2.1 Body of the paper: analysis, findings

This research sought to evaluate the effect of interest rates on demand for credit and loan repayment in the country. Further, 58% of the respondents were male and 42% of them were female. Majority (55%) of them were business owners hence could give the relevant information sought. All the respondents had attained grade 10 and diploma level of education hence could articulate the issues under study easily. A significant 65% of them had been in business for between 4-10 years to qualify for credit from lending institutions. 88% of them indicated that they were small scale enterprises. 77% of them were in the trading industry, 22% of them were service industry, and the remaining 1% of them from the

manufacturing industry.

Another 65% of them indicated that their primary source of financing was through savings. 23% of them indicated that they had obtained loans and the remaining 12% of them indicated otherwise. Studies carried out by International Labor Organization (ILO) following financial crises in East Asia (Mark 2003), on financial support for micro and small enterprises in Thailand, revealed that 36% of these enterprises had difficulties in arranging start-up funds, 55% had funded their enterprises with their own funds, 17% obtained funds from government subsidized programmers and 20% of the survey group had borrowed from a bank. 50% of them indicated that they had obtained loans twice after startup phase. 43% of them had applied for amount between cash 1-50,000; 26% of them cash amount between 200,000-500,000, 20% were 100,000-200,000, 10% between 50,000-100,000 another 1% of them had applied for amounts between 500,000-1,000,000. However, majority of them categorically indicated that they amounts they had applied for were not the amount they received. These study findings complement the findings of (Swain, 2002) who established that loan quantity rationing arises when the potential borrower is denied credit while loan size rationing occurs when the loan amount received by the borrower is smaller than the one they demanded.

78% of the respondents categorically indicated that they were charged interest rates of 12%. They were followed by those charged 13% represented at 12% and the rest 10% were the interest rate is 14%. Possession of collateral (2.9745) was the most important aspect for one to access credit from lending institutions. This was followed by availability of guarantors (2.6854) and financial statements (2.8642) respectively. 52% of them indicated that they were not satisfied while the remaining 48% of them indicated otherwise. Reasons for not being satisfied ranged from: High interest rates, short repayment period and longtime taken to process the credit facility.

Further, 79% of them indicated that they did receive the loan on time while the remaining 21% of them indicated otherwise. Loans delayed for periods of between 1-2 weeks. 67% of them indicated that they had failed as required and 33% of them indicated otherwise. Majority of the respondents were motivated to repay their loans on time in expectation to get another loan (4.5623). This was followed by the fact that majority of them did not want to lose their collateral at means of 4.1521. Knowing that paying union loan was their obligation (3.4434) and to keep social status (3.4524) followed respectively.

All the respondents categorically indicated that they considered the interest rate charged as an important factor before they applied for any loan. 84% of them indicated that interest rates should be charged according to the size of loan applied for where small loan amounts should attract small interest rates and vice versa. Majority of the respondents indicated that interest charged by the lending institution (4.1010) was significant in determining demand for credit by SMEs. This was followed by business annual profits (3.9912) and owner's contribution to business (3.8556) respectively.

### 3.1.2.2 Regression Analysis

The research findings indicated that there was a very strong positive relationship ( $R = 0.942$ ) between the variables. The study also revealed that 88.5% of demand for credit by SMEs could be explained by the variables under study. From this study it is evident that at 95% confidence level, the variables produce statistically significant values and can be relied on to explain demand for credit. The findings are as shown in the following Tables

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.942	.887364	.399	.94425

Fig 4.2.19 regression analysis

#### ANOVA

Model	Sum of Squares	Degree of f.dom	Mean Square	F	Sig.
Regression	1.518	95	.138	.746	.004
Residual	.185	5	.185		
<b>Total</b>	<b>1.702</b>	<b>100</b>			

Fig 4.2.20 ANOVA

Source: Research Data 2013

Coefficients	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant) beta	2.131	.138	.156	.947	.350`
Effective interest rate	.880	.198	.069	.403	.031

Annual profit (EBIT)	.799	.232	.258	1.289	.016
Owners' Equity	.648	.131	.192	1.123	.029

**Source: Research 2007**

From this study it was evident that at 95% confidence level, the variables produce statistically significant values for this study (high t-values,  $p < 0.05$ ). A positive effect is reported for all the variables under study hence influence the demand for credit by the saving and credit cooperatives union positively. The results of the regression equation below shows that for a 1- point increase in the independent variables, demand for credit by individuals is predicted to increase by 2.131, given that all the other factors are held constant.

**The equation for the regression model is expressed as:**

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

$$Y = 2.131 + 0.880X_1 + 0.799X_2 + 0.648X_3$$

**Where:-**

- $\beta_1, \beta_2$  and  $\beta_3$  are correlation coefficients
- Y= Credit demand
- X1= Effective interest rate
- X2= Annual profit (EBIT)
- X3= Owner's equity

#### IV. CONCLUSION AND RECOMMENDATION

The finding of this study revealed the age of respondents, and education level, negatively and significantly determines the loan repayment performance of borrowers. This indicates that the elder respondents and educated individuals have better repayment performance than youngsters. And the elders were more responsible to repay loan than youngsters also the educated respondents were more responsible to repay loan than illiterates. The researcher not recommends excluding youngsters. However, the care must be taken when starting from applicants' screening to through repayment periods, the special attention for follow up and supervision is necessary.

The reason behind the demand for credit and loan repayment problems were lack of creation of awareness is the main point for achieving the planned goal; therefore, the institution must give awareness creation before and also after the borrowers take money. Not only this but also proper and planned supervision also a very important tool like the Amhara credit and saving institution (ACSI) house to house supervision where the borrowed amount they invests weather based on their business plan or not must be assured.

The institution first and for most made reengineering or assigned properly especially the loan department officers because some of them are not familiar with their job and also they did not well commitment, professional quality and also well trained and experience then this makes the loan repayment problem and the process also in question. The education level determines loan repayment positively and significantly. The borrowers who attained higher education level able to pay better than the borrowers who were in lower level schooling. Therefore, institution should motivate educated people and also easy to provide training. Time lag between loan application and disbursement should be reduced to increase repayment rate. The complicated loan processing procedures, which might lead to delay in disbursement, further, it will increase default rate.

The supervision made by the loan officers and borrowers ratio should be reduced and it leads to increase follow-up services. However, it is recommended that institution should compute thoroughly the borrowers' business proposal loan size before approving and sanctioning. Borrowers who have small number of or no dependents' in the household perform better in loan repayment. The borrowers who support large number of dependent's also perform well with proper supervision.

Loan diversion was also found as essential and significant determinant of loan repayment rate negatively. This means, diverting loan into non-income generating activities increases default rate. Therefore, it is recommended that the institution should give attention to continuous follow-up on proper loan utilization. Repayment period is also found to be a significant determinant of loan repayment performance of borrowers. Suitability of loan repayment period for borrowers was found to significantly increase the probability of repaying loan. Therefore, the institution has to give enough time to clients. The union must and better to use the credit insurance, not to reduce the default but also eliminate totally the default rate or the loan repayment problem.

Finally, this study has focused on certain variables related to determinants of loan repayment performance of borrowers. However, loan repayment performance on behalf of institution was not investigated. Thus, further researches can conduct on this issue to breach the gap in this area.



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