

# A Study of Credit Risk in Credit Unions in Belize

Augustine Dele Domingo, Somanadevi Thiagarajan

**Abstract** --Credit Unions play an important role in providing loans to the weaker sections of the society and hence contribute to the economic development of a nation. The purpose of this study was to examine the credit risk associated with the select credit unions in Belize. The study included a survey of members of credit unions and loan officers of major credit unions in Belize. Primary data were collected using Questionnaires, secondary were collected from the audited annual reports of credit unions and the Statistical Institute of Belize. The data were analyzed using SPSS software. The analysis showed that the credit unions exercise due care in approving loans to borrowers. The credit management system used by the credit unions includes investigation of the employment status of borrowers, identities of borrowers, legal contract to surrender salaries and other benefits against the loan, monitoring of the use of loans for the purposes being approved for and the use of shares as collateral for loans. These measures lead to the conclusion that the credit risk management policies of the selected credit unions are adequate for effective risk management. Based on these findings, recommendations were made to further tighten the credit policies of the credit unions and to increase their asset base so that they can continue to contribute to the economic development of Belize.

**Key words**-- Credit Risk, Credit Unions, Economic Development, Risk management.

## I. INTRODUCTION

Credit risk is the potential that a bank borrower or counterparty will fail to meet his/her obligations in accordance with agreed terms. The risk is primarily that of the lender and includes lost principal and interest which would lead to disruption of cash flows and increased collection costs. In recent decades, many countries have experienced banking sector problems including bank failures due to mismanagement of credit risk. Vodová (2003), in his paper entitled "Causes of the Banking Crisis" highlights that at least-two-thirds of IMF member countries have gone through banking crisis in the last twenty years. The financial sectors in Belize are not prone from the crisis as well.

Credit default is a great risk to financial institutions and nations are always finding ways to mitigate the incidences. According to Levisauskaite and Kaupelyte (2005), credit unions are acting in the same retail banking market as banks and they often remain "unnoticed" by supervising institutions due to the peculiarities of their activities. Market laws that set the value of capital (shares) do not influence credit unions as they have a limited number of members-owners and their shares are not traded in the market.

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As the clients of credit unions are also members of the credit union and hence are shareholders, conflict between owners and managers may not exist. For these reasons, management of credit unions avoids the pressure to develop risk management procedures to guard against the risks involved in credit unions' operations. This is a great concern as lapses may be created which eventually may lead to the collapse of the credit unions as was the situation in European and Asian countries where the entire system of credit unions went bankrupt (Nemcova, 2004).

It is very crucial for credit unions to investigate the creditworthiness of borrowers before approving loans so that recollection is possible. This will at least provide a reasonable assurance for the financial institutions on their going concern. For example, Washington Mutual which was the largest savings and loan association in the United States of America until its collapse in 2008 did not manage its credits to customers very well and went into receivership.

Belize is small commonwealth country with a population of 324,528 people (SIB 2010) located in the Central America, where credit unions play a critical role in providing loans to thousands of households who are mostly belong low income group. According to the Belize Credit Union League the total membership of all credit unions is estimated to be about 106,000 which is about 33%; of the population of Belize. The current study was carried out to find out the mechanisms used by the credit unions in Belize to mitigate or prevent credit risk.

## II. LITERATURE REVIEW

According to Rajan (1994) the herd behavior of bank managers might help to explain why they finance negative Net Present Value (NPV) projects during expansions." He stated that the fact that others are lending may be considered as invaluable information concerning the creditworthiness of a potential borrower. As such managers, in order to increase their margin tend to give out loans without following risk management policies.

Caprio and Klingebiel, (2003), in their study entitled "episodes of systemic and borderline financial crises" found out that the problems faced by Asia's banking systems were the legacy of years of bad lending practices fuelled by inadequate supervision and regulation that led to rapid lending growth and excessive risk taking. This clearly shows the role of credit risk affecting the functioning of the overall economy.

Kaupelyte and McCarthy (2006) claimed that "though credit unions are acting in the same retail banking market as conventional banks, they are often excluded from the State regulation of banking performance because of the differences in their structure and activities." They noted that the internal procedures for credit unions also differ from those of commercial banks. As a result of these, market laws that set the value of capital shares do not affect credit unions as they have limited number of member-owners. Due to

these, the managements of credit unions are not pressured to develop risk management procedures to control the risk of credit defaults.

Thiagarajan (2013) in her study entitled “Determinants of Credit Risks in the Commercial Banking Sector of Belize,” stated that banking in modern economies is all about risk management because the economic repercussions of a bank failure could be catastrophic on the entire financial system. The study reported that the non-performing loans not only affect the banking industries but the economy as a whole. When the default rate is very high, it holds up capital that would have been used for economic growth thus having some serious negative impacts of the entire system.

If the credit unions in Belize continue to give out loans without considering the credit risks inherent in these loan portfolios, then a time will come when the loans will be non-performing. The non-performance of the loans makes it very difficult, if not impossible for financial institutions to break-even in their operations. Another possible cause of bad lending is the strong competition among or between credit unions and other financial institutions which puts pressure on credit unions. To compensate for declining profits, credit unions might sacrifice objectivity in credit evaluation standards and increase loan growth at the expense of the quality of their loan portfolios to the extent that such loans turn out to be non-performing.

III. SOURCE OF DATA AND METHODOLOGY

This study used panel data from 2008 to 2012 for the four main credit unions namely; La Inmaculada credit union, St. John’s credit union, St. Martin’s credit union, and Holy redeemer credit union. The institutional parameters that are to be considered are the asset base and loan growth for the selected credit unions from 2008 to 2012. The instruments used were questionnaire and financial statements of the selected credit unions. Data were also obtained from the Statistical Institute of Belize and the Central Bank of Belize.

There were two sets of questionnaire; one for credit union members and the other for loan officers of the selected credit unions. The questionnaires were distributed to credit union members at the selected credit unions. This is a convenient sampling technique as it is the only way to capture credit union members. The study is limited to credit union members who have taken out loans within the year 2008 and 2012.

IV. RESULTS AND DISCUSSION

Figure 1 shows that 81.6% of the credit union members are employed at the moment whereas only 19.4% are not working. This shows a strong correlation to the national unemployment rate. The average national unemployment rate is 16.1% whereas the unemployed members of the selected credit unions is 19.4%. This shows that the economy also has a great impact on the employment status of credit union members.

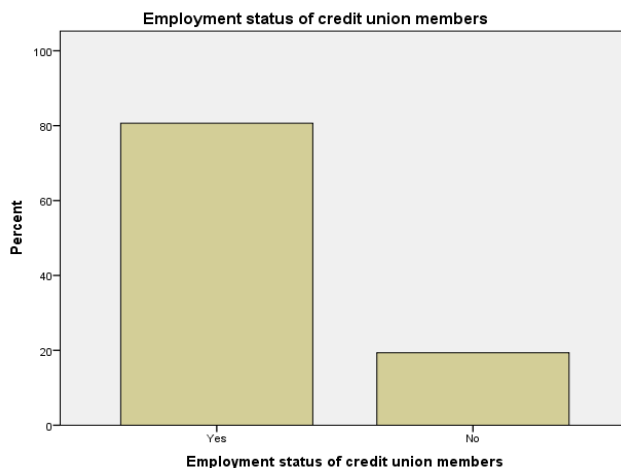


Figure 1: Employment Status of credit union members

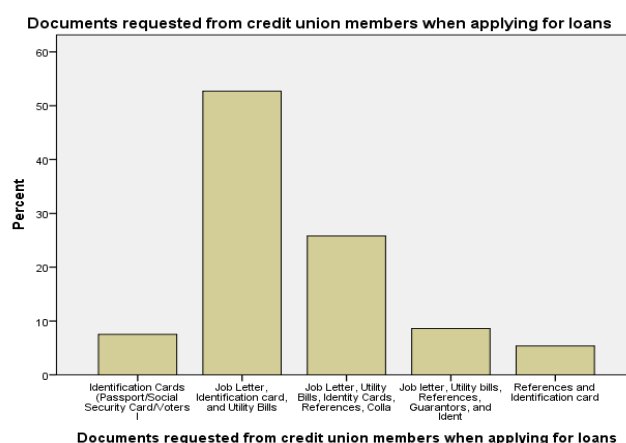
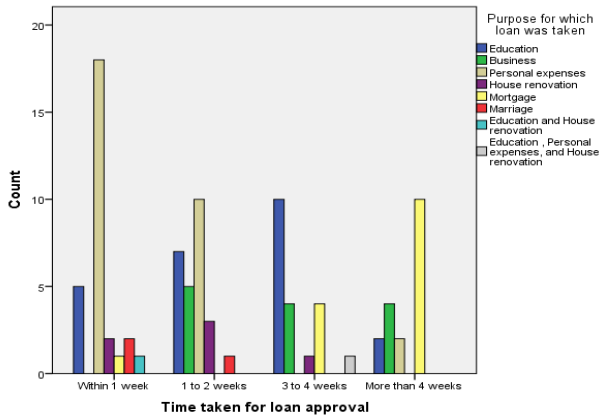


Figure 2: Documents requested from credit union members when applying for loans

Figure 2 shows the list of documents requested when members apply for loans. It shows that a lot of documents are requested to verify the credit worthiness of members when they apply for loans. This shows that the credit unions are very careful when it comes to approving loans even to their members

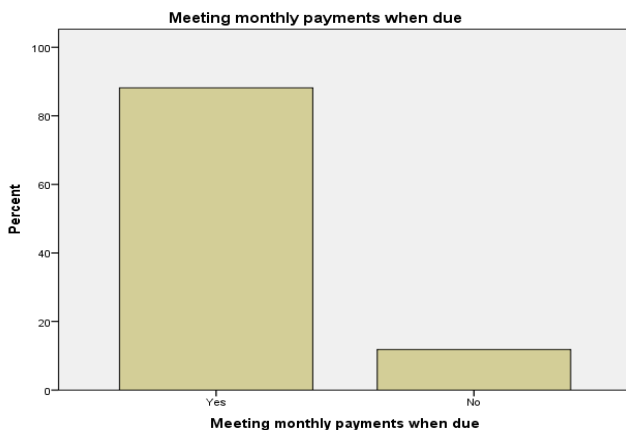
Figure 3 shows the number of weeks it takes for loans to be approved and the purposes that loans are taken for. It reveals that 20.83% of education related loans were approved within a week, 29.17% were approved between the first and second week of application, 41.67% were approved between the third and fourth week of application 8.33% were approved after four weeks of application. For business loans, none was approved within a week, 38.46% were approved between the first and second week of application, 30.77% were approved between the third and fourth week of application, and 30.77% were approved after four weeks. As it relates to personal expenses, 60% were approved within the week of application, 33.33% were approved between the first and second week of application. For house renovation, 33.33% of loans were approved within the week of application, 50% were approved between the first and second week, 16.67% were approved between the third and fourth week. For mortgage related loans; only 6.67% were approved within the first week of application, 26.67% were approved between the third and fourth week, and 66.67% were approved after four weeks of application. For marriage purposes, 66.67% were approved in the first

week of application whilst 33.33% were approved between the first and second week of application. It took more time to approve mortgage and educational loans and less time that was taken to approve personal loans that are generally smaller amounts. This shows that the credit unions take great care in approving large sums of monies. More investigation about borrowers and their ability to pay back are done especially when the loans are large and long term as in the cases of mortgage and business loans.



**Figure 3: Time taken for loan approval and purpose of loan**

Figure 4 shows that about 88% of the credit unions members were able to pay their monthly payments when due as opposed to about 12% who were unable to meet the monthly payments. This indicates that the credit unions are able to collect most of their loans however the delinquency rate is significant as this can contribute to the default on loan payment in the longer run.



**Figure 4: Meeting monthly payments when due**

Table 1 shows the existence of very strong correlation (correlation coefficient is 0.916) between the assets and the loans given by the selected credit unions from the 2008 to 2012. It indicates that as the assets of the credit unions increase the loans given also increase. The “R Square” which is the coefficient of determination is about 0.838 indicates that about 83.8% of the variation in the loans approved by the credit unions is caused by increase in the assets of the credit unions. The ANOVA table shows the F value is well below 0.05 which implies that the confidence level is more than 95% for the impact of asset on the loans

given out. This implies that the more the assets of the credit unions increase, the more loans they give out. This justifies why customers join credit unions in order to get loans to facilitate their projects in the future.

**Table 1: Analysis of the relationship between Assets and loans given by credit unions**

Regression Statistics	
Multiple R	0.915683454
R Square	0.838476188
Adjusted R Square	0.784634917
Standard Error	28190973.64
Observations	5

ANOVA					
	df	SS	MS	F	F-Sign
Regression	1	1.23E+19	1.23E+19	15.6	0.029
Residual	3	2.38E+18	7.94E+17		
Total	4	1.47E+19			

The study showed that 89.2% of the respondents are in the working age group (from 20 years to 49 years). This is a good sign that credit unions will be able to collect unpaid loan balances as members are still working and earning income as opposed to 10.8% who are from ages 50 above; preparing for retirement or have actually retired and depending on retirement benefits. It should be noted the government retirement age is 55 in Belize.

It was also discovered that 75% of the respondents have been with their respective credit unions for more than 2 years. This implies that they are satisfied with the level of services and operations of the credit unions. The members over the period of time have taken out loans for several projects and have always paid back so that they can qualify to bigger loans. The study shows that 28% of the borrowers feel a moral obligation to pay up their loan balances, about 11% of the borrowers feel obliged because the credit unions will take a court order to collect on unpaid balances, about 28% are afraid that they will not be able to get a loan in the future if they do not pay up their current loan. This explains why the default risk is very low as members are concerned about their ability to obtain loans in the future.

The salaries of 42% of borrowers were tied to their loans. As such the credit unions deduct their monthly payments directly from their salaries. This reduces the incidences of default. 54% of the members have to go personally to the credit unions to make payments on their loans because their salaries were not assigned to the credit unions. Such persons’ loans, however, are below their shares which during their loan period cannot be withdrawn. It was discovered that 98% of the borrowers used the loans for the purposes that the loans were approved for, as opposed to about 2% who did not use the loans for the purposes that they were approved for because they claimed that the credit unions did not monitor them.

The survey of the loan officers indicated that about 40% of the loan officers have attended professional workshop outside of Belize. Since the credit unions in Belize are members of the Caribbean league of credit unions

who organize workshops to adequately equip the loan officers in loan assessment. Additionally, all the loan officers have attended specific credit risk management training. This is to ensure that the loan officers are adequately trained to identify when particular loan applications are risky for their credit unions. All the loan officers interviewed indicated that all their loans are constantly monitored.

### V. CONCLUSION

The results of this study showed that the default rate of the credit unions is very minimal as it cannot affect their operations. The credit unions critically analyze the credit worthiness of the borrowers before approval of the loan. It was also observed that the assets of the credit unions continue to grow during the years 2008 to 2012. Additionally most of the members of the credit unions believed it is their moral obligation to repay the loan. It is evident that the current risk management policies of the selected credit unions are adequate for effective risk management and it is expected that the default rate of the credit unions in Belize is not alarming as to affect the financial viability of the credit unions.

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