The Myanmar JOURNAL

Letter from the Editor-in-Chief

Myanmar and Korea have many similarities and are complementary relationship. Therefore, we believe that research exchange will expand mutual understanding between Myanmar and Korea, and will be the cornerstone for mutual development.

KOMYRA and YUE have co-published The Myanmar Journal since August 2014. So far, many scholars have published numerous papers through the journal, and We are sure that this journal has helped many people understand Myanmar and Korea more clearly and closely.

The Myanmar Journal covers various issues in Myanmar and Korea. It covers various topics that can promote bilateral development and mutual understanding, not limited to specific topics such as economy, industry, society, education, welfare, culture, energy, engineering, healthcare, and agriculture.

We hope that this journal will continue to promote understanding of the current status and potential capabilities of Myanmar and South Korea and promote in-depth international exchange and cooperation.

We would like to express our deepest gratitude to the editorial board and YUE and KOMYRA for their valuable support in The Myanmar Journal publication.

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This journal aims to promote the mutual cooperation and development of Myanmar and Korea through intensive researches in the entire filed of society, economy, culture, and industry.

It will cover all general academic and industrial issues, and share ideas, problems and solution for development of Myanmar.

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Factors Affecting Gross Domestic Product (GDP) Growth in Myanmar

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ABSTRACT : Credit risk has long been a source of concern for bankers, as well as the rest of the business world, because the danger of a borrower failing to meet his obligations in full by the due date can significantly imperil a financial institution's performance. The goal of this study was to see how credit risk management affected Mandalay's microfinance institutions' performance. The research style used in this study is descriptive research design because it includes an in-depth analysis of credit risk management and its relationship to loan performance in microfinance institutions. Questionnaires was used to obtain primary data. The fourteen micro finance organizations licensed by the Financial Regulatory Department are the study populations; however, data was collected from seven microfinance institutions. Multiple regression analysis was used to examine the data. This research revealed that there was a link between loan performance and credit risk management. The effects of credit risk identification, credit risk quality, and credit risk control on MFI loan performance were statistically significant. As a result, they have an impact on MFI loan performance since MFIs have a business strategy in place to detect risk and monitor loan applicants' credit trustworthiness. Furthermore, MFIs provide a variety of loan packages, allowing borrowers to take out a variety of loans. Furthermore, MFIs impose fines on loan defaulters, as well as the signing of a binge contract. MFIs are reducing the length of time that borrowers have to repay their loans and lowering interest rates. Credit risk assessment is not statistically significant on loan performance of MFIs because MFIs are weak periodically assessments for fund products and monthly review of loan performance and to recovery loan mechanism. The research indicates that all microfinance institutions should implement an accredit risk rating system after establishing a link between credit risk management and business performance.

Key words : *Credit Risk, Credit Risk Management, Firm Performance, Loan Performance, Microfinance Institutions (MFIs).*

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I. Introduction

Many microfinance organizations are already operating in Myanmar, mostly to assist rural communities and alleviate poverty. Microfinance institutions play a critical part in every country's economic development. Microfinance institutions serve as middlemen, collecting surplus funds and lending to investors to fund initiatives. Microfinance institutions contribute towards growth of the economy by making sure credit is availed to the public (Kallberg & Udell, 2015). The majority of revenue for microfinance organizations comes from client loans. In reality, loans are the most important asset of commercial banks, accounting for 50-75 percent of total assets. Loans provide a major contribution to any country's economic prosperity. Thus, proper management of loans not only affects the lending institution but also the borrowers and the country in totality (Mac Donal & Kock, 2016). Inability to effectively manage loans would lead to accumulation of non-performing loans that adversely affect performance of commercial banks (Jimenez & J, Credit Cycle, Credit Risk, and Financial Regulation.International Journal of Central Banking „ 2016).

Credit risk is one of the most serious concerns for lending institutions all over the world. Nonperforming loans have caused a number of crises in developed countries like as Japan, the United States, and Sweden, as well as emerging countries in Southeast Asia and Latin America. Credit management that is efficient and intelligent needs lending institutions to manage their clients' credit limits effectively and intelligently. Most lending institutions have collaborated with credit reference agencies, which exchange information about clients' credit histories, among other things, to make the process of approving loans easier. This helps lending institutions to reduce exposure to bad debts in the event that customers fail to repay the advanced amount.

When it comes to the success of microfinance organizations, credit risks are crucial. In microfinance institutions, credit risk is an integral element of the loan assessment process. Microfinance institutions are now using credit risk management models to protect themselves from the negative effects of credit risk. Microfinance institutions should manage their credit risk across the board, not only in individual transactions or credits.

II. Rationale of the Study

Myanmar is an agricultural country among Sought East ASIAN Countries. So many people live in rural areas are working agriculture. They have poor living standard and

education. Microfinance institutions can help farmers to rise standard of livings. But microfinance institutions face risks such as default of loans and bad debts, etc. Credit risk is one of the most critical across the world among lending institutions. Risk control through effective portfolio management. Small, medium and even large MFIs in Myanmar find it difficult to minimize business risk, manage risk and to predict the outcome of credit transactions. Although credit facilities are main sources of revenue among microfinance institutions, loans are however very risky in the industry. This also explains why management of credit risk is one of the crucial activities that microfinance institutions carry out. Of all risks that microfinance institutions face, credit risk is one of the most critical since it leads to bad debts that strongly impacts on profitability of microfinance institutions. The higher the risk, the greater the return and hence there is the need for the financial institutions to strike for an equitable balance between the two. Hence, this aim to address this hiatus within the literature by investigating the credit risk management of microfinance institutions in Mandalay.

1. Objective of the Study

The study's major goal is to examine the risk management practices and firm performance of microfinance institutions in Mandalay Region.

2. Scope and Method of the Study

This is a quantitative research. It is presented according to the descriptive and inferential research method. In this study, data were collected with structured questionnaire. This questionnaire was based on three sections such as profile of respondents, credit risk management practices and loan performance of microfinance institutions. There were totally 14 microfinances institutions in Mandalay. The target population of microfinances institutions which was founded from 2016 to 2019 in Mandalay. The sample size was 7 institutions among microfinances institutions in Mandalay. To collected the data, (140) respondents were selected from seven institutions among microfinance institutions in Mandalay. To collect the data, seven institutions were selected in accordance with two state cluster sampling method. Moreover, Statistical Package for Social Science (SPSS) were used to make the correlation analysis and multiple regression analysis for dependent and independent variables.

III. Literature Review

1. The Concept of Credit Risk Management

The increased demand for microfinance services and products in Myanmar, particularly Mandalay, raises concerns about the industry's long-term viability. Risk management, in particular, has emerged as one of the most significant issues confronting any microfinance institution, whether it is an NGO, credit union, financing company, or specialized bank. According to (Bruets, 2004), these hazards vary and require different management techniques. (Ledgerwood, 1998) recommends an effective legal and policy framework, as well as the integration of critical components of institutional capacity building, such as product design, performance measurement and monitoring, and microfinance institution management, in order to minimize possible risks. Risk management is a regular aspect of business for microfinance institutions (MFIs). Risk levels should be precisely proportionate to projected profits, according to the basic principle of risk management. Successful MFIs will be those that can handle these risks (Oberdorf, 1999).

Microfinance institutions (MFIs), like other financial organizations, face risks that must be managed efficiently and effectively in order to be successful. MFIs will most likely fail to fulfill their social and financial goals if risk is not properly managed. Donors, investors, lenders, borrowers, and savers lose faith in organizations when poorly handled risks result in financial losses, and existing and future sources of financing are lost. MFIs will be unable to achieve their principal goal of providing financial services to the poor if investment funds dry up, losing their core business and becoming unsustainable.

Risk management is a difficult responsibility for any financial company, but it is becoming increasingly vital in a world where economic events and financial systems are intertwined. Global financial institutions and banking authorities have highlighted risk management as a vital component for financial long-term performance. Market risk and particular risk are the two types of hazards (or non-market risk). By definition, market risk is the risk that is shared by an entire class of assets or liabilities. The danger that an investment asset or group of securities may lose value is referred to as market risk.

This potential for decline in value may come from underlying economic and financial market factors, such as changes in law, changes in interest rates, extreme weather or political environment (Parker,1999).

The bulk of MFIs in emerging economies invest in medium and long-term financial products. For investors, these sorts of investments come with a particular set

of dangers. On the one hand, investors must deal with risks inherent in the microfinance business, while on the other side, many risks originate from nation hazards, which are frequent in emerging nations. When it comes to national risks, investors should be aware that the legal, institutional, and macroeconomic situations in developing countries differ substantially from those in developed ones. As a result of weaker financial reporting standards, greater political instability, and other factors, investors may be exposed to a range of risks.

2. Types of Risks Faced by Microfinance Institutions

All financial organizations face a number of dangers. Credit risk, operational risk, cash movement risk, interest rate volatility, liquidity risk, and foreign currency risk are all risks that banks and unregulated MFIs face.

1) Credit Risk

Credit risk refers to the potential that a borrower or counterparty may fail to meet their contractual obligations in accordance with the terms and circumstances of the contract. Due to the fact that the bulk of MFI loans are unsecured, they are subject to a significant degree of credit risk. In the literature, credit risk has been recognized as a key risk faced by microfinance institutions. According to Santomero (1997), having an effective credit risk management (CRM) system in place is important for financial institutions to minimize loan losses and therefore credit risk. Given the asymmetry of information between lenders and borrowers, financial institutions must have a system in place to guarantee that they not just analyze default risk, but also the risk of other financial institutions defaulting on their payment commitments to MFIs. This is especially true of MFIs that continue to operate as NGOs. MFIs may incur payment obligations as a result of their use of institutions such as depository institutions, investment outlets, or money transfer services. Such risks might also develop as a result of agency costs incurred by MFIs as a result of services supplied to other financial institutions. When these institutions are unable or unable to satisfy their payment commitments, MFIs suffer losses. MFIs, on the other hand, sometimes disregard this aspect of credit risk, as seen in certain examples. For MFIs that have built a substantial amount of reserves, credit risks are more relevant today than they were in the beginning.

2) Operational Risk

Microfinance is an operations-intensive paradigm, and ineffective procedures wreak

havoc on internal controls, resulting in fraud and other operational problems. MFIs can detect vulnerabilities and weak connections that represent a higher risk of fraud by keeping detailed records of the procedures and sub-processes. MFIs should establish a risk-scoring methodology and assign a score to each branch to discover fraud early and take action. The model should be based on a variety of criteria when viewed holistically (Bruet, 2004). The risk scoring model should punish branches with a history of fraud, and the frequency of audits should be related to the risk score.

3) Cash Movement Risk

Because all MFI disbursements and collections are cash-based, they are exposed to a high level of risk owing to cash management. This problem is compounded in institutions that operate in distant areas. Fraud can occur if cash movement is not recorded and checked against demand and collections. MFIs can reduce fraud by imposing cash retention restrictions on branches and requiring any deviations to be approved and documented.

4) Interest Rate Volatility

One of the most significant risks that MFIs face today is interest rate volatility. Changes in interest rates, including lending and borrowing rates, have an influence on earnings, particularly in the short term. Increases in the cost of capital have a negative impact on margins, reducing profitability and operational self-sufficiency. With growing competition and pressure to lower interest rates, as well as MFIs' inability to pass on interest rate rises to their clients and new rules on margin limits, interest rate risk will remain a major danger to MFIs (Bruet, 2004).

5) Liquidity Risk

The term "liquidity risk" refers to the difference between the maturities of assets and obligations. Liquidity risk is the prospect of negative consequences for a financial institution's owners, clients, and other stakeholders if it is unable to satisfy current cash commitments in a timely and cost-effective manner. Management's inability to effectively foresee and plan for changes in financing sources and cash demands is the most common source of liquidity risk.

6) Foreign Exchange Risk

Foreign exchange risk refers to the danger of losing money or assets due to

variations in currency prices. When microfinance organizations borrow or mobilize savings in one currency and lend in another, they are most likely to face foreign exchange risk (Bruet, 2004). Many MFIs in Ghana that were reliant on dollar-denominated loans began mobilizing local savings in 1999 to decrease the currency mismatch between assets and liabilities as a result of the dollar's rise (Asiama & Osei, 2007). To insulate themselves from uncertainty, some MFIs employ interest rate swaps or futures contracts to "lock-in" a desired exchange rate.

3. Conceptual Framework of Credit Risk Management on Loan Performance

The figure showing the conceptual framework is indicating the theoretical relationship between dependent variable and independent variables. The credit risk management practices are the independent variables and they are employed by microfinance institutions to explain the variation or changes in the performance of MFIs (Dependent variable). The application or use of these practices will determine the level of performance of the microfinance institutions

Figure 1. Credit Risk Management
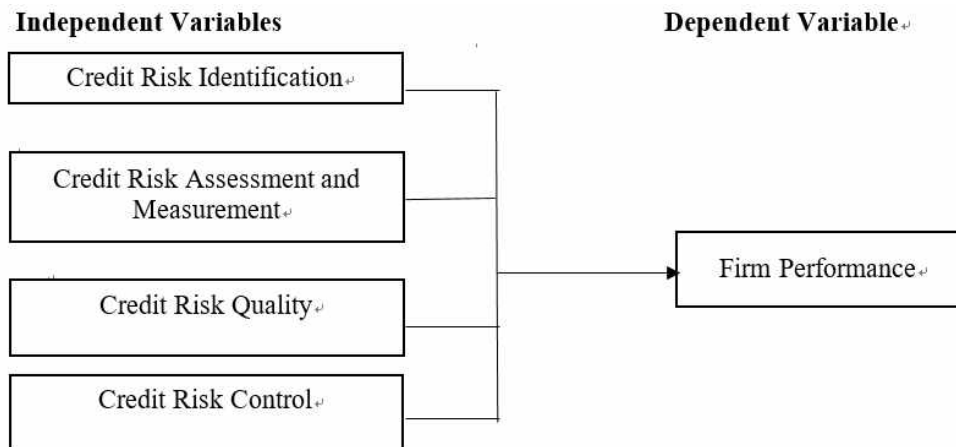
Source: Adopted from Basel (2004)
Figure (1) Conceptual Framework of the Study V. Analysis and Findings

IV. Analysis and Findings

All 7 approved deposit-taking microfinance institutions in Mandalay that are registered with the Financial Regulatory Department will be included in the study's population. (140) people were chosen from seven microfinance organizations in

Mandalay to help gather the data. The demographic profile of the respondents was shown in this part, which includes their age, gender, occupation, and income level. The gender of the respondents was split into two categories: male and female.

Table 1. Demographic Profile of Respondents

Gender	Number of Respondents	Percent
Male	70	50
Female	70	50
Age(Years)	Number of Respondents	Percent
Between 20 and 25 years	65	46.4
Between 26 and 30 years	43	30.7
Between 31 and 35 years	22	15.7
Between 36 and 40 years	7	5.0
Above 40 years	3	2.1
Occupation	Number of Respondents	Percent
Credit Manager	19	13.6
Credit Officer	98	70.0
Other	23	16.4
Education	Number of Respondents	Percent
Graduated	136	97.1
Post Graduated	4	2.9
Experiences	Number of Respondents	Percent
Under 1 year	50	35.7
Between 1 and 2 years	33	23.6
Between 2 and 3 years	23	16.4
Above 3 years	34	24.3

Source: Survey Data, 2020

A sample involve 70 respondents of the sample size are male, and 70 respondents are female, representing 50% and 50% respectively. Ageof respondents is classified five groups such as age group between 20 and 25 years old represent 46.4% which are the largest age-group of all respondents. And then, the groups of age between 26 and 30 years old and between 31 and 35 years old represent 30.7% and 15.7% respectively. The age group of between 36 and 40 years old represents 5.0% and the smallest group is the age group above 40 years old which represents 2.1%. Position of respondents is divided into three groups: credit manager, credit officers and others. Credit officer position represents 70.0% which is the largest group among all positions. After that, the group of credit manager and other represent 13.6% and 16.4% respectively. Education of respondents is divided into two groups: graduated and post graduated. Most of the respondents 97.1% are graduated and the rest of respondents 2.9% are post graduated. Respondents who have experiences under 1 years represents 35.7% which is the largest experiences group of all

respondents. And then, the group who have experiences for between 1 and 2 years, and between 2 and 3 years, and above 3 years represent 23.6%, 16.4% and 24.3% respectively.

1. Pearson Correlation Analysis between Credit Risk Management and Loan Performance

Table (2) demonstrates the correlation coefficient for dependent variable such as directive style and independent variables such as the four dimensions of situations. Pearson correlation coefficients illustrate that there are positive relationships between independent variables and directive style.

Table 2. Pearson Correlation Analysis

Variables	Loan Performance
Credit Risk Identification	0.316**
Credit Risk Assessment	0.333**
Credit Risk Quality	0.340**
Credit Risk Control	0.324**

**Correlation is significant at the 0.01 level (2-tail)
Source: Survey Data, 2020

Pearson correlation analysis is a measure of linear relationship between independent variables and dependent variable. According to correlation coefficient, when the relationship between the variables is not linear, the relationship between the variables does not sufficiently represent. As a result of Table (2), correlation of each independent variables (credit risk identification, credit risk assessment, and credit risk quality and credit risk control) is significant at 0.01 level (2-tail) to the dependent variable (loan performance). According to the Pearson correlation value, credit risk quality is 0.340, credit risk assessment is 0.333, credit risk control is 0.324 and credit risk identification is 0.316. Therefore, credit risk quality, credit risk assessment and credit risk control and credit risk identification have significant positive relationship with loan performance. As a result, there is a correlation between credit risk quality and credit risk assessment, credit risk control, credit risk identification and loan performance.

2. Multiple Regressions Analysis between Credit Risk Management and Loan Performance

This analysis is adopted to examine the relationship of four independent variables

that researcher's intent to analyze, which includes credit risk identification, credit risk assessment, credit risk quality and credit risk control toward a dependent variable which is loans performance. Multiple regression analysis can be successfully conducted as the all constructs are measured by the Likert scale.

Table 3. Coefficients of Multiple Regression Analysis

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig	VIF
		B	Std. Error	Beta			
1	(Constant)	0.960	0.521		1.842	0.068	-
	CRI	0.235	0.115	0.188**	2.043	0.043	1.421
	CRA	-0.010	0.148	-0.008	-0.070	0.945	2.457
	CRQ	0.243	0.110	0.225**	2.204	0.029	1.752
	CRC	0.221	0.102	0.192**	2.155	0.033	1.327
	Adjusted R2	0.172					
	F	8.197***					

Dependent Variable: Loan Performance
Predictor: (Constant), CRC, CRQ, CRI, CRA
**Correlation is significant at the 0.05 level (2-tail)
***Correlation is significant at the 0.01 level (2-tail)
Source: Survey Data, 2020

Based on the results of the Table 3, the following equation is formed:

LP = 0.960+ 0.235 (CRI) + 0.243 (CRQ) + 0.221 (CRC) - 0.010 (CRA) + ei

$y = f(x_1, x_2, x_3, x_4)$

y= Dependent Variable

$f(x_1, x_2, x_3, x_4)$ =Independent Variables

The equation shows that the coefficient for credit risk identification, credit risk assessment, credit risk quality and credit risk control are 0.188, -0.031, 0.239 and 0.191. It could be explained that if credit risk identification, credit risk quality and credit risk control increase by one unit, loan performance will increase by 0.235, 0.243, and 0.221 units.

The regression output shows that credit risk quality, credit risk identification and credit risk control are statistically significant at 5 % level because their p-value 0.029, 0.0043 and 0.033 are lower than the significant level of 0.05. Thus, it is considered as the major factors which effect on loan performance. On the other hand, credit risk assessment is not statistically significant at 5% level because its p-value 0.945 is greater than the significant level 0.05. Therefore, credit risk assessment is not considered which can affect on loan performance. It is a standard

practice to use the coefficient p-value to decide whether variables should be included in the final model. For the result above, microfinance institutions should consider effectiveness of credit risk assessment. Keeping variables that are not statistically significant can reduce the model's precision.

Adjust R^2=0.170 shows that 17% of the loan performance can be explained by credit risk control, credit risk quality, credit risk identification and credit risk assessment. F value 6.684 can prove to be significant at 1% level. Similarly, p=0.000 (p< 0.001) can prove to be significant at 1% level. Therefore, the four independent variables are significant contributing to the loan performance.

It can be found that microfinance institutions are practicing credit risk management practices (credit risk identification, credit risk assessment, credit risk quality and credit risk control). The firms' performance depends on good credit risk management practices.

V. Conclusion

The major goal of this research is to see how credit risk management affects loan performance in MFIs. According to the findings, numerous MFI-specific characteristics (credit risk identification, credit risk assessment, credit risk quality, and credit risk control) appear to be key drivers of loan performance. Due to a lack of data, this study only analyzes four MFI-specific factors.

The study finds that credit risk identification, credit risk quality, and credit risk control have substantial, positive, and good multiple connections with loan performance and MFIs. According to the study's findings, microfinance institutions' loan performance has a significant link with credit risk management. Furthermore, the study finds that changes in credit risk identification, credit risk quality, and credit risk control have a higher impact on microfinance loan performance. Following that, the study indicates that MFI loan performance and credit risk assessment have a negative association. It can be found that MFIs are practicing credit risk management practice of credit risk identification , credit risk assessment and measurement , credit risk quality and credit risk control.

It is suggested that MFIs invest in debt collection, which would include engaging skilled and experienced debt collectors, attorneys, and auctioneers to boost defaulter lawsuits. It is recommended that Myanmar's Central Bank, which regulates MFIs, impose strict regulations on interest rates charged by MFIs in order to control their interest rate spread, as well as strict policies on loan advances in order to avoid moral hazards such as insider lending and information asymmetry. Management

should hold frequent training sessions in topics such as credit management, risk management, and financial analysis.

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