

Credit Risk Management in Cordillera Community Microfinance (CCMI), Inc.

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Abstract— This study aimed to assess credit risk management in Cordillera Community Microfinance Inc. (CCMI). The study was conducted in total enumeration at the branches of CCMI in the Cordillera region with 66 respondents. Respondents were chosen through purposive sampling, a combination of current Board of Trustees (BOTs) at the time of the survey, the unit heads, account officers, and finance and administrative staff per branch. The study used a descriptive research design and descriptive survey method, which included collecting and analyzing respondents' responses using a survey questionnaire as the main tool. Results of the study suggest that employees have much awareness of the credit risks associated with the loan products and portfolios since all employees undergo new employee trainings and most are engaged in operations of the company. The credit risk management objectives were also much attained with objectives related to the periodical review and update of policies and procedures, regular implementation of independent and objective loan review process, and actions regarding early identification and timely interventions to ensure loan quality having the lower results among the objectives. Fortuitous events such as natural calamities, outbreaks and the health of clients, and economic factors were considered to have very high contribution to credit risk in the company. The company has strategies to manage this risk, but the company can still enhance them not only to ensure that processes are streamlined, and objectives will be attained effectively and efficiently. The conclusions of the study are as follows: Determining the extent of risk awareness inside the organization through employee feedback is a critical step in developing and putting into practice prompt and efficient credit risk management strategies; The organization's credit risk management objectives serve as a roadmap that should be frequently visited and given equal weight to guarantee that credit processes, procedures, and policies are evaluated and updated on a timely basis for an efficient and effective implementation of strategies; and The nature of microfinance exposes them to a variety of risks, but with the correct strategies in place and efficient execution, the organization could reduce the effects of credit risk.

Keywords— Credit and Background Investigation, Financial Institution, Policies, Procedures, Processes, Risk Evaluation.

I. INTRODUCTION

Credit risk management in microfinance has evolved into a crucial idea that governs sustainability, expansion, and profitability—and not just because of the current financial crisis facing the sector. The practice of assessing and reducing the risk of loss brought on by borrowers' failure to pay their obligations is known as credit risk management (Bhatt et al., 2023). The stability and profitability of financial institutions are directly impacted by this risk, making it a crucial aspect of their operations (Telg et al., 2023). For credit risk management to be effective, credit risk needs to be quantified, tracked, identified, and controlled.

Due to the continuous economic unpredictability and heightened competitiveness in the financial services sector, credit risk management has become more and more significant in recent years. Financial institutions must employ effective credit risk management procedures to safeguard themselves against potential losses and preserve the confidence of their stakeholders (Agbana et al., 2023). Microfinance institutions (MFIs) offer financial aid to people who don't have access to traditional banking services. These individuals might be less financially literate and possess fewer assets, which raises the possibility that they will default on their loans. As a result, effective credit risk management is essential to ensure both MFIs' existence and their clients' financial stability (Bouteille & Coogan- Pushner, 2021).

Microfinance has already attracted growing attention and has proven worldwide to be a promising tool to alleviate poverty ever since the United Nations Organization (UNO) announced in 2000 the Millennium Development Goals aimed to reduce poverty by half by the year 2015. Committed to enhancing the lives of the poor in developing nations, MFIs around the world offer their target customers small-amount credit loans without the need for collateral to support their consumption, entrepreneurship endeavors, medical expenses, or children's education.

Microfinance clients are inherently risky, largely due to their extreme susceptibility to declining economic conditions and lack of information on their creditworthiness. MFIs gained attention due to their exceptionally high repayment rates, which are a result of the various procedures they generally employ to address issues with screening and enforcement. These mechanisms lower the default risk and increase repayment rates. The credit risk management strategies that microfinance commonly uses include these mechanisms. These include the use of joint liability or group lending, dynamic incentives or non-refinancing threats, regular repayment schedules, collateral substitutes, and the provision of nonfinancial services which are primarily part of their social objectives. Joint liability or group lending has followed the concept of solidary obligation wherein the loan of one group member is also the responsibility of all other members and the other way around. Dynamic incentives may include offering of higher loan amount for the next loan cycle if the client maintains good repayment behavior.

One unique feature of MFI is that, unlike regular commercial banks, they don't ask for real property collateral from their clients. However, collateral substitutes are a crucial tool that MFI might employ in order to keep a high repayment rate. Collateral substitutes serve as a means to secure repayment such as savings from clients. Furthermore, a guarantor may be required to agree to guarantee the borrower's debt if an MFI offers individual microcredit as opposed to group lending. Nevertheless, it is important to remember that a guarantor's primary responsibility is to be the deciding factor in approving the credit, not a secondary source of repayment.

Another MFI practice is the regular payment concept. Even though economic theory suggests that a more flexible repayment schedule would benefit clients and potentially increase their repayment capacity, microfinance practitioners believe that the discipline imposed by regular repayment maintains high repayment rates in the absence of collateral. In the MFI, the repayment starts almost immediately after disbursement and then occurs on a weekly or monthly basis. A regular payment schedule mechanism provides clients with a credible commitment device, which enables them to form the habit of saving regularly. However, these early regular repayment schedules may exclude potential borrowers who have a single source of income from the market and are mostly

present in areas focused sharply on highly seasonal occupations like agricultural cultivation. The income generation of agriculture areas is unstable and regular repayment schedules are difficult to respect.

Apart from their social mission success, MFIs have appeared to be a potentially viable and profitable business and have registered a well-known success of some third-world programs in generating impressive repayment rates. To face the dilemma of having dual objectives to in serving poor clients with relatively small loans and achieving self-sustainability, it is vital to find the best practice, improve the efficiency of their portfolio risk management as well as apply an accurate pricing policy, which allow for finding a better equilibrium between sustainability and outreach. The effective management of credit risk is critically important for MFIs because they depend excessively on interest income from loans and finance charges, and loans are their main asset.

Effective credit risk management allows MFIs to reduce default rates while still preserving the health of their loan portfolios. MFIs can enhance financial performance by lowering the amount of money they must set aside for loan loss provision. It may also enhance the institution's reputation, making it easier for it to draw in new investors and clients. The ability of an MFI to turn a profit, however, could be harmed by insufficient credit risk management (Bhatt et al., 2023). Large losses could be incurred by the MFI as a result of high default rates, which may impede its ability to take on new responsibilities and grow its business. To improve both social outreach and financial sustainability in an increasingly constrained environment, developing powerful credit risk management tools in MFI has become more than ever crucial.

According to an article published by Stephens and Khemar (2019) in the Microfinance Barometer, in ten years, microfinance institutions (MFIs) globally have lent hundreds of billions of dollars, with an average annual growth rate of 11.5% over the past five years. At the same time, the number of borrowers worldwide continued to increase - albeit at a slower pace than in the 2000 to 2010 period - recording an average annual growth rate of 7% since 2012, compared to a rate of nearly 20% in the previous decade. Nevertheless, there was a slight deterioration in the quality of the portfolio over the entire period, with the portfolio at risk (PAR) over 30 days having risen from 6.4% in 2009 to 7% in 2018. After a decline in the PAR > 30 days between 2010 and 2012, it rose again and stabilized between 2016 and 2018 at around 7%. South Asia continues to dominate global microfinance: it is the region with the largest number of borrowers (85.6 million in 2018), with this number growing faster than in other regions (+13.8% between 2017 and 2018). It also has the top three markets in terms of borrowers, India, Bangladesh, and Vietnam.

The Philippines' microfinance sector is credited as one of the oldest and most active in the world. It has served as a natural experiment for microfinance. Microfinance loans in the Philippines do not exceed 150,000 but MFIs in the country are growing at a fast pace. Since 2002, microfinance in the Philippines has grown dramatically. In its 2014 financial inclusion initiatives report, the Bangko Sentral ng Pilipinas (BSP) said that there are 183 banks with microfinance operations serving more than 1 million clients in 2015. According also to BSP, microfinance institutions (MFIs) have more on-ground presence in rural areas, making it a "last mile" financial service provider. These institutions reach 84% of local government units compared with the 69% covered by banks. Microfinance institutions are also present in 57% of unbanked local government units. According to the Microfinance Council of



the Philippines, Inc. (MCPI) in 2018, microfinance loans issued by banks, cooperatives, and non-government organizations added up to over US\$3.5 billion among 5.7 million borrowers. Ninety percent of borrowers are women, two-thirds of whom are based in rural areas.

As MFIs in the country increase their outreach with a greater number of active poor people, uncontrolled growth increases portfolio risk and, thus, deteriorates the portfolio quality. Expanding the number of active borrowers who are low-income earners proves to be not viable and unsustainable. As microfinance operations mature, it requires new investment in infrastructure and operating systems which can also affect the portfolio and increase the credit risk. Republic Act 9510 or the Credit Information System Act established a credit information system under a microfinance credit information bureau Credit Information Corporation whose primary purpose shall be to receive and consolidate basic credit data, to act as a central registry or central repository of credit information, and to provide access to reliable, standardized information on credit history and financial condition of borrowers. MFIs can use this system for credit investigation to prevent over-indebtedness or multiple borrowing through information sharing at the industry level. Through this, MFIs in the Philippines can look to multiple borrowing as an early warning sign of the need to improve products and services to better meet and serve the needs of the low-income market.

The Microfinance Council of the Philippines, Inc. (MCPI) is the national network of microfinance institutions working towards sustainable, innovative, and client-responsive solutions to poverty in the country. The key programs of MCPI include advocacy, social performance management, and consumer protection in microfinance, capacity building for microfinance institutions, performance monitoring and benchmarking, and the establishment of a knowledge and research center for microfinance. On a local level, a similar association of legitimate lending companies in Baguio City and the whole of Benguet was established namely the Association of Financial Intermediaries Baguio Benguet Inc. (AFIBBI). AFIBBI aims to create a platform for sharing experiences about the financial industry, enabling them to become the best when it comes to acquiring knowledge, seeking advice, and implementing solutions to meet their clients' needs. Members can conduct credit and background investigations to the members by calling their respective offices to inquire about the client which can reduce the risk of over-indebtedness.

Cordillera Community Microfinance, Inc. (CCMI) started as a microfinance project of Cordillera Parent's Federation Inc. (CPFI), a partner organization of Child Fund International in Cordillera. The project was designed to increase the income of poor families by providing them access to quality financial services with the long-term goal of improving the well-being of children. With the technical and financial support of Child Fund Philippines, CCMI was successfully registered as an NGO Microfinance in 2012 which envisions supporting the development of improved quality of life for low-income entrepreneurial families and children in the Cordilleras and nearby provinces through responsive microfinance services. CCMI's mission is to create meaningful socio-economic development impact in partnership with communities and agencies with an aspiration to help low-income families and to promote the welfare of children through Social Development Programs.



Like any other microfinance that aimed to expand its operations, the company faced the risks brought by increasing competition, inflation, calamities, and other internal and external factors. To differentiate itself from other MFIs, CCMI offered a loan product to agricultural areas with a lump sum mode of payment which is rare in other MFIs in the region. Also, CCMI is a member of the Association of Financial Intermediaries Baguio Benguet Inc. (AFIBBI) and Microfinance Information Data Sharing Inc. (MIDAS) which allows them to conduct a credit investigation on the members to monitor their borrowings and loan history. CCMI offers a wide range of modes of payment from weekly, bi-monthly, monthly, quarterly, and lump sum depending on the type of loan product availed by the client. The addition of educational loans and house improvement loans also widened the variety of products offered by the company.

However, the financial crisis has repeatedly tested the company's portfolio which affects its portfolio at risk and sustainability. The most common challenge that influences the credit risk is the fluctuating prices of produce such as vegetables, palay, and corn since most of the company's members are farmers availing agricultural loans, and income from such is usually generated after harvest and not on a daily or weekly basis. Also, there has been increasing competition in the microfinance industry due to the high repayment rates. Many banks and other financial institutions also started offering loan products that have appealing features like lower finance charges, add-on interests, and lump sum mode of payment which was not previously offered. In addition, these banks have most likely the available funds from investors as compared to non-government organizations who are dependent on income from normal operations and donations, if any. Another significant factor that can affect the company's Portfolio at Risk (PAR) rate is calamities which include typhoons, and outbreaks such as the African Swine Flu and the COVID-19 pandemic. The aforementioned factors are highly risky since their actual occurrence and the value of damages can only be projected. Moreover, it does not only affect the clients availing the loans but can also threaten the company itself which was experienced during the COVID-19 pandemic.

The underlying objective of this study stems from a recognized need to assess CCMI's credit risk exposures to navigate the inherent issues arising from the industry and their target market. First, the microfinance industry is inherently risky since its target market is low-income earning and is vulnerable to crisis. Aside from possible limited sources of income, some clients may have low financial literacy which can affect their repayment behaviors if not properly addressed. Moreover, as a service provider in the financial industry, CCMI must ensure to maintain a high repayment rate while fulfilling its social obligation to alleviate poverty. Second, there has been increasing competition not only among microfinance institutions but also with other financial institutions that offer loans and similar services. Commercial banks are also engaging in microfinancing and there is the continuous emergence of cooperatives, online lending, and similar services that offer loans to individuals. A saturated market can either help the company establish a competitive advantage or threaten its current position in the market. Lastly, with issues arising due to climate change, risk management strategies related to calamities and outbreaks became a significant factor not only for the company's sustainability but also for their clients who are vulnerable to such crises.

As a small and medium-sized business that began with modest beginnings and limited resources, CCMI must exert extra effort in managing its credit risk exposures to earn income to maintain its operations while fulfilling its social



obligations as microfinance. With this, the management and staff of the company must be continuously aware of their risk exposures, are able to identify, understand, measure, monitor, and control the credit risk assumed. Having awareness and understanding of the credit risk the company is exposed to can help CCMI in developing and adopting risk management practices whose sophistication and effectiveness are commensurate with the risk being taken. Consequently, establishing credit risk management objectives can help CCMI establish an appropriate credit risk environment, operate under a sound credit granting process, and maintain appropriate credit administration, measurement, monitoring, and control processes over credit risk.

Therefore, the study was conducted to understand and assess the credit risk exposure of CCMI to have broader insights to help in attaining credit risk management objectives which is highly relevant due to its potential impact on financial stability, regulatory compliance, and overall business success. In addition, the study can help the management assess their products and services to determine if it is still aligned with their vision, mission, goals, and objectives. Results from the study can provide the company with insights into improving its existing credit and background investigation process, refining loan assessments and approval procedures, and optimizing the loan disbursement and collection process to enhance the company's overall performance. Terms and conditions of loan products can be subsequently enhanced not only to adapt to changes and opportunities arising in the industry but also to establish an advantage to cater to the low-income market without compromising the company's sustainability.

Statement of the Problem

The research aims to assess the credit risk management in Cordillera Community Microfinance, Inc. (CCMI).

Specifically, this research seeks to answer the following questions:

1. What is the level of awareness of the risk associated with the loan products and portfolio?
2. What is the level of attainment of the credit risk management objectives?
3. What is the level of contributions of the factors affecting the credit risk as reflected in the portfolio at risk?

II. METHODOLOGY

A. Research Design

Quantitative research design was primarily used in this study and is characterized by data in the form of numbers which are usually but not always presented through statistical analysis (Newhart et al., 2023). Data for this study are not initially collected in numerical form but translated into numbers.

Descriptive survey method which was adopted in this study is characterized by the researchers having no control over the variables and can only report what has happened or what is happening. The descriptive survey method is concerned with the present and attempts to determine the status of the phenomenon under investigation. It is often carried out as a preliminary step to be followed by the researcher employing more vigorous control and more objective methods (Newhart et al., 2023).

This research utilized a questionnaire survey to collect data from the staff of CCMI in its branches located in the Cordillera region. The descriptive survey method was used since the type of information needed for the study can



be collected through this method from a wide coverage at a minimum expense of both money and effort. The research focused on awareness of the risk associated with the loan products and portfolio, attainment of the credit risk management objectives, and factors affecting the credit risk as reflected in the portfolio at risk.

B. Locale and Population of the Study

The research was conducted in total enumeration in all branches of Cordillera Community Microfinance, Inc. in the Cordillera region through purposive sampling. The chosen respondents are the current Board of Trustees (BOTs) at the time of the survey, the unit heads, account officers, and finance and administrative staff per branch.

The BOTs have an important role in the approval and regular review of credit risk strategy and credit policy, as well as the oversight of the implementation of a comprehensive and effective credit risk management system, thus, should also be evaluated to establish an appropriate credit risk environment. The unit heads, account officers, and finance and administrative staff were also chosen since they are the front lines in the microfinance operations and are the ones who are responsible for marketing, recruitment, and orientation of clients up to the processing, approval, disbursement, and collection of their loans. Staff at the branches are the ones on the field so they must be able to identify, understand, measure, monitor, and help in controlling risks encountered from the operations.

The survey questionnaire was given to all 69 chosen respondents and 66 respondents (95.65%) were able to return the questionnaire with answers.

C. Data Gathering Instrument

The researchers used a combination of a standard and a self-made survey questionnaire to collect data from the current Board of Trustees (BOTs) at the time of the survey, the unit heads, account officers, and finance and administrative staff employed in all branches in the Cordillera region. The questionnaire was developed to collect information on the status of the company with its credit risk management. The survey was administered through Google Forms where the link was sent to the unit heads and was forwarded to other respondents to facilitate a more organized survey and to maximize the successfully submitted responses. Names of the respondents and the branch where they were assigned were included in the first part of the questionnaire.

The questions were grouped into three categories adapting the Likert scale to capture the levels to answer the questions stated in the problem. The first part of the questionnaire has indicators that were based on the Five C's of Credit and parts of the PESO Rating: Performance Standard for Microfinance NGOs (MF-NGOs) in the Philippines that asks the respondents to assess their level of awareness of these indicators that are related to the risk associated with the loan products and portfolio.

The second part asks the respondents to assess if the following objectives are attained in CCMI. Objectives were copied from Section 143 Credit Risk Management of the Bangko Sentral ng Pilipinas Manual of Regulations for Banks. Lastly, the respondents were asked to rate the level of contributions of several factors to the credit risk of their loan portfolios. In addition, the researcher secured a copy of the standardized operations manual for review and assessment.



D. Reliability and Validity of the Research Instrument

A research instrument is considered valid when it measures what it is designed to measure and accurately performs the functions it is purported to perform as well as reliable if it yields consistent results (Newhart et al., 2023). Validity is the degree to which scores on an appropriately administered test support inferences about variation in the construct that the instrument was developed to measure (Cizek, 2020). Content validity refers to the extent to which the selected measures in research are measuring what they are intended to (Bell et al., 2019).

The content validity of the questionnaire was evaluated by the researcher's adviser and the proposal defense panel committee in addition to the evaluation made by the executive director and the human resource manager. This study made use of Cronbach's alpha to measure internal consistency and test the reliability of the third part of the questionnaire by pre-testing with 10 employees from Kayapa and Pozorrubio branches who were not included in the sample which yielded an alpha of 0.80 which is highly reliable. The first and second parts were not subjected to reliability tests as it was copied from reliable sources, the first part from the PESO Rating: Performance Standard for Microfinance NGOs (MF-NGOs) in the Philippines and Section 143 Credit Risk Management of the Bangko Sentral ng Pilipinas Manual of Regulations for Banks. After which, questionnaires are floated to all branches in the Cordilleras.

E. Data Gathering Procedure

The researchers initially secured the approval of the company's Executive Director and explicit consent from the respondents before sending the link for the questionnaires. The contact details of the unit heads were requested from the Human Resource Manager and the link was forwarded to the unit heads who helped in facilitating the survey for their staff. In addition, before attaching the link to the Google Form for the questionnaire, a foreword stating the purpose of the questionnaire including its scope and limitations was included which was also the opening statement of the survey in Google Form. It states that once the respondents open and answer the questionnaire, he/she is likewise giving his/her consent. Once the respondents submitted their responses, a copy of the responses was sent to the registered email of the researchers for consolidation. The researchers also scheduled a branch visit to the nearer branches, Tadian and Sabangan after receiving their responses and conducted a structured interview with the respondents. In addition, the researchers secured a copy of the company's operations manual and pertinent documents for analysis and evaluation.

F. Treatment of Data

The data gathered in the study was tallied, classified, tabulated, and subjected to frequency, weighted mean, and ranking as illustrated in the book of Venables and Ripley (2002).

G. Ethical Considerations

In compliance with the Data Privacy Act of 2012, the researchers sent a request letter including the specific data needed for the study and to secure the consent of the management that such data will be presented in the research. The research only needs reports of the branch and overall company performance and excludes personal information about the company's borrowers and employees.



In addition, the approval of the management was also obtained to perform structured interviews and participant observation. Explicit consent of the respondents for voluntary participation was secured before the interview and observation. It was clearly stated that all data acquired will be treated with confidentiality and solely for research purposes.

III. RESULTS AND DISCUSSION

A. Level of Awareness of the Risk Associated with the Loan Products and Portfolio

Table 1 aims to assess the awareness of staff of certain indicators that are related to the risk associated with the loan products and portfolio. Results show that employees are very much aware of the loan terms applied by the client and the purpose for availing of the loan which has the highest weighted mean of 4.26. According to the company's operations manual, clients undergo orientation before they are officially evaluated and accepted as members. Most of the employees conduct orientations themselves which cover the processes and procedures of loan application, approval, disbursement and collections, the loan products, and loan terms that include the amount of the loan, interest rate, and amortization schedule. Moreover, employees especially those who are engaged in operations undergo new employee training where they are educated on the company policies and procedures including computations of interest and penalties.

The last three indicators also showed a much awareness result except the seventh indicator which asks about their awareness of the loan loss provision which showed moderate awareness. Respondents say that they are aware since they usually see it in the monthly status report, but they lack understanding of the purpose of loan loss provision and its impact on the company's performance and risk exposure.

Most of the respondents are highly engaged in the operations of the company which is why results are on a higher scale. This supports the standard credit risk management structure stated in Section 143 Credit Risk Management of the Bangko Sentral ng Pilipinas Manual of Regulations for Banks where personnel or staff involved in all phases of the credit risk management process shall be qualified, competent and have the necessary training and experience to exercise prudent judgment in assessing, managing and/or controlling credit risk, and a solid understanding of the financial institution's strategic direction, policies, procedures, risk tolerance and limits.

The third indicator "Client's other loans, their amortizations, and their cash flow" had a lower weighted mean and when asked through the interview, respondents answered that clients may not declare all their loans or there can be difficulties in gathering such information such as when other financial institutions are not willing to share their client information. Moreover, there are no certain documents or records to ascertain the actual cash flows of clients since they don't keep a record of their income and expenses, thus, they tend to give estimates that can sometimes be over or understated.

As mentioned in Section 143 Credit Risk Management of the Bangko Sentral ng Pilipinas Manual of Regulations for Banks, consistent with safe and sound banking practice, a financial institution shall grant credits only in amounts and for the periods of time essential for the effective completion of the activity to be financed and after ascertaining that the client is capable of fulfilling his commitments to the institution. Towards this end, the company shall establish well-defined credit-granting criteria and underwriting standards, which shall include a clear indication



on its target market and a thorough understanding of the obligor or counterparty, as well as the purpose and structure of the credit and its source of repayment.

It was also stated in the manual that depending on the type of credit exposure and the nature of the credit relationship, the factors to be considered and documented in approving credits shall include, but are not limited to, the following: The purpose of the credit which shall be clearly stated in the credit application and in the contract; The current risk profile (including the nature and aggregate amounts of risks, risk rating or credit score, pricing information) of the borrower, collateral, other credit enhancements and its sensitivity to economic and market developments; The sources of repayment, repayment history and current capacity to repay based on financial analysis from historical financial trends and indicators such as equity, profitability, turnover, leverage, and debt servicing ability via cash flow projections, under various scenarios; The proposed terms and conditions of the credit (i.e., type of financing, tenor, repayment structure, acceptable collateral) including covenants designed to limit changes in the future risk profile of the borrower; And where applicable, the adequacy, valuation and enforceability of collateral or guarantees.

Upon reviewing their CIBI form which they use in evaluating clients, it is an unstructured and open-ended questionnaire type that includes a narrative that describes the borrower, their livelihood, and credit backgrounds including improvements and changes related. It was able to provide some of the factors to be considered and documented in approving credits except the current credit risk profiling.

The overall result from the first question shows that the level of awareness of the respondents of the indicators with an Average Weighted Mean of 3.84 falls under Much Aware. Having much awareness of their clients means that they are aware of the risks associated with them. With appropriate client information, it can help the company avoid high-risk clients which is a good strategy for managing their credit risk. Indeed, the client's creditworthiness will significantly depend on the extensiveness of the account officer's effort in the investigation, but establishing a particular pre-assessment measure they can use in evaluating client credit risk can help reduce the extensive process which can be allocated to other tasks. Credit risk evaluation is the process through which a lender assesses the creditworthiness of a prospective loan that exposes financial institutions to credit risk. The credit analysis ultimately results in an estimation of the likelihood of customer default (De Leon, et. al, 2019). Also, the information produced from these evaluations can be organized or translated into data that can be used for easier assessment of creditworthiness and social impact or client improvement in the future.

The assumption which states that the level of awareness of the risk associated with the loan products and portfolio is moderately aware is therefore negated because the result is much aware.

Table 1: Level of Awareness of the Risk Associated with the Loan Products and Portfolio N= 66

Indicators	Level of Awareness					TWP	WM	DE	Rank
	VMA	MA	MoA	SA	LA				
	5	4	3	2	1				



1	The character of the client which results from background inquiry and credit checking	26	16	22	2	0	264	4.00	MA	3
2	The client's source of income and the repayment history from other lenders	24	18	10	12	2	248	3.76	MA	6
3	Client's other loans, their amortizations, and their cash flow	14	21	16	11	4	228	3.45	MA	7
4	The loan terms applied by the client and the purpose for availing the loan	22	39	5	0	0	281	4.26	VMA	1
5	The collateral substitutes the client can offer and its equivalent value	10	43	13	0	0	261	3.95	MA	4
6	Your actual vs. target loan portfolio, number of active borrowers & portfolio at risk	38	13	6	7	2	276	4.18	MA	2
7	Loan loss provision (amount and ratio)	8	25	13	15	5	214	3.24	MoA	8
8	Interest and penalty rates and how to compute	22	26	8	10	0	258	3.91	MA	5
Average Weighted Mean								3.84	MA	

Legend:

Scale	Statistical Limits	Descriptive Equivalent	Symbol
5	4.21-5.00	Very Much Aware	VMA
4	3.41-4.20	Much Aware	MA
3	2.61-3.40	Moderately Aware	MoA
2	1.81-2.60	Slightly Aware	SA
1	1.00-1.80	Least Aware	LA

B. Level of Attainment of the Credit Risk Management Objectives

The level of attainment of the credit risk management objectives in CCMI is Much Attained as shown by the total weighted mean of 3.9 in Table 2. Credit policies, processes, and procedures are sound, comprehensive, and clearly defined, and are approved and supported at the Board of Director/ Trustee or Executive Level is very much attained in CCMI as evidenced by the highest weighted mean of 4.23. According to De Leon (2019), one of the key players in microfinance is the Board of Trustees who sets the policy and appoints good and competent management. The Board oversees MFI operations and bears ultimate responsibility to stakeholders and members for its solvency and sustainability. Thus, the risk management process through internal governance is a joint responsibility of executive management together with the board and its audit committee and internal auditors.

It is to be noted also that the periodical review and update of policies and procedures, regular implementation of independent and objective loan review process, and actions regarding early identification and timely interventions



to ensure loan quality had lower results among all indicators. The company's operations manual has not been updated since 2015 however, the branches compile the official memos of updates on policies and procedures in folders. The company was able to update its standardized accounting process last 2019 but the transition from the old Management Information System (MIS) to a cloud-based last 2021 has significantly changed the process not only in the financial or accounting process but also in operations. The company was able to establish an audit committee but as of now, they only have one internal auditor, and given the number of branches now, there can be difficulty in performing regular internal audits and loan portfolio audits.

It was stated in Section 143 Credit Risk Management of the Bangko Sentral ng Pilipinas Manual of Regulations for Banks that depending on the size, complexity, and scope of credit activities, and in addition to the roles and responsibilities of the board and senior management, a financial institution's credit risk management organization may be broadly classified into three functional lines of activities: the front, back and middle offices, to properly segregate accountabilities, ensure that no individual is assigned conflicting responsibilities, and effectively monitor and control the risks being taken.

The front office function performs credit originating; recommends internal credit ratings, classifications and allowances for losses including changes thereon, when necessary; and the on-going monitoring of credit exposures of borrowers on a day-to-day basis. The back office provides support in the overall credit administration, including, among others: ensuring complete documentation, credit disbursement and recording of payments received; maintenance of credit and collateral files; and compilation of management information reports.

The middle office performs risk management and control functions that are independent from the credit originating and administration functions. The risk management function provides meaningful inputs in policy formulation and limits setting; designs and implements the internal credit risk rating system; and performs periodic exposure and exception monitoring. The risk management function shall report directly to the Risk Management Committee (RMC) or appropriate board-level committee or the board. An independent credit review is a function within the middle office that performs an unbiased assessment of the quality of individual credits and the aggregate credit portfolio, including appropriateness of credit risk rating, classification and adequacy of allowance for loan losses which can be performed by qualified personnel fulfilling other independent control oversight functions such as the internal auditor. The workout or problem loan management is another function within the middle office that is independent from the credit originating function to ensure that problem loans are managed effectively to minimize potential losses. The independent audit function conducts independent credit and compliance audits of the credit risk management system of the company. The scope of internal audit shall include the evaluation of the independence and overall effectiveness of the credit review function.

Ozili (2019) notes that the study of non-performing loans (NPLs) is important because they reflect the quality of the loan portfolio of a financial institution. According also to Akromovich (2020), internal audit plays an important role in preventing the emergence of non-performing loans and reducing credit risk. By conducting an audit of problem loans, the internal audit assesses the internal control system and analyzes the risks associated with the



activities being audited, as well as the recommendations made in the reports prepared to achieve the company's objectives.

Regardless of the organizational structure that the company adopts, the board shall ensure that the aforementioned key functions which already exist in the company are considered, and independence and control oversight functions are effective to avoid or address any potential conflict of interest. The credit policy shall likewise provide for the maintenance of an audit trail documenting that the credit risk management process was properly observed and identifying the unit, individual(s), and/or committee(s) providing input into the process.

The assumption made that the level of attainment of credit risk management objectives is moderately attained is therefore negated because the result is much attained.

Table 2. Level of Attainment of the Credit Risk Management Objectives N= 66

Objectives	Level of Attainment					TWP	WM	DE	Rank	
	VMA	MA	MoA	SA	LA					
	5	4	3	2	1					
1	Credit policies, processes and procedures are sound, comprehensive and clearly defined, and are approved and supported at Board of Director/ Trustee or Executive Level.	29	25	10	2	0	279	4.23	VMA	1
2	Credit processes, procedures, and policies are documented in sufficient detail, effectively communicated throughout the organization to provide guidance to staff.	24	21	21	0	0	267	4.05	MA	4
3	Credit processes, procedures, and policies are periodically reviewed and updated to take into account new activities and products, as well as new lending approaches.	15	24	13	14	0	238	3.61	MA	8
4	The institution operates under a sound credit granting process which includes the different levels of appropriate approving authority.	19	33	14	0	0	269	4.08	MA	3
5	There are corresponding approving authority limits and are commensurate with the risks of the credit exposures.	25	28	9	4	0	272	4.12	MA	2
6	An independent and objective loan review process is regularly implemented to determine that loans are granted following the policies; assess the overall loan quality;	11	30	14	11	0	239	3.62	MA	7



	determine trends; and identify problems/ frauds.									
7	A disciplined and vigorous process is developed and maintained for the early identification and intervention of potential or existing problem loans.	17	30	11	8	0	254	3.85	MA	5
8	Management takes timely and adequate action to maintain the quality of the loan portfolio, prevent further deterioration, and minimize the likelihood of future losses.	16	25	12	13	0	242	3.67	MA	6
Average Weighted Mean								3.90	MA	

Legend:

Scale	Statistical Limits	Descriptive Equivalent	Symbol
5	4.21-5.00	Very Much Attained	VMA
4	3.41-4.20	Much Attained	MA
3	2.61-3.40	Moderately Attained	MoA
2	1.81-2.60	Slightly Attained	SA
1	1.00-1.80	Least Attained	LA

C. Level of Contribution of the Factors Affecting the Credit Risks as Reflected in the Portfolio at Risk

The level of contributions of the factors affecting the credit risk as reflected in Table 3 of the portfolio at risk in CCMI is Highly Contributory based on the total weighted mean of 3.95. Natural calamities, outbreaks, the health of clients, and economic factors have a very high contribution to the company's portfolio at risk as shown by the similar weighted means. The only contingency plans to address such risks are the loan loss provision, loan guarantee fund, and Baddang fund. The loan loss provision is provided based on the aging of the loans and should be 125% of the amount of the portfolio at risk. The loan guarantee fund is pre-deducted from the client's loan upon loan disbursement is a fee charged to cover part of the loan loss for the year and loans of good clients who dies untimely or who gets disabled permanently that prevents him/her to work and earn again. Baddang fund is an annual fee of two hundred pesos paid through the savings of members which is a mortuary benefit given to clients covering the death of a member or its qualified dependents.

According to Chatterjee (2020), the factors mentioned frequently hurt the same MFIs that low-income households rely on, as borrowers struggle to repay their loans after short-term economic shocks. If disasters hit, MFI balance sheets can suffer since they do not often maintain adequate liquidity reserves to sustain operations with the cash inflows suddenly stopping when clients stop depositing savings or even withdrawing their savings. Risks associated with the health of clients may not be often but once also the client stops depositing and paying, the performance of the branch can be highly affected.



The competition was considered to have a high contribution to the portfolio at risk. With the increasing competition not just among microfinance but also among other lending institutions, there is a higher risk of default due to over-indebtedness which affects the cashflows and repayment behaviors of clients having access to several options to borrow money. Lamichhane (2022) conducted a review of the theoretical and empirical literature to investigate loan delinquency in microfinance institutions (MFIs). According to the study, governance in loan delivery processes, client identification, effective credit appraisal and review of client credit history, professional knowledge of clients, client literacy, and identification of clients' over-indebtedness, as well as loan utilization, can assist MFIs in reducing loan delinquency and assisting portfolio management. Thus, risk of defaults due to over-indebtedness can be dealt with a well-defined credit-granting criteria and underwriting standards of the company.

Geographical location and lack of technical knowledge and adequate training have a moderate contribution since the impact of these factors is not directly on the loan portfolio but on the implementation of certain policies and procedures. Geographical location can only slow down the process of credit and background investigation and collections, but the company provides motorcycles to account officers to have easier means of transportation when doing their fieldwork. Also, lack of technical knowledge and adequate training can be easily addressed through seminars and training not only for the employees but also for the clients. Robert Merton first proposed the credit risk theory, sometimes known as the theory of default, which sees default as an embedded put option that the borrower might exercise when the circumstances make it economically advantageous for the borrower to do so. One or few of the factors listed can be that circumstance for a single client to exercise loan default. CCMI was able to address some of these factors by providing contingency funds and certain strategies to avoid significant contribution to credit risk.

The assumption which states that the level of contributions of the factors affecting the credit risk as reflected in the portfolio at risk is moderately contributory is therefore negated because the result is much aware.

Results of the study suggest that employees have much awareness of the credit risks associated with the loan products and portfolios since all employees undergo new employee trainings and most are engaged in operations of the company. The credit risk management objectives were also much attained with objectives related to the periodical review and update of policies and procedures, regular implementation of independent and objective loan review process, and actions regarding early identification and timely interventions to ensure loan quality having the lower results among the objectives. Fortuitous events such as natural calamities, outbreaks and the health of clients, and economic factors were considered to have very high contribution to credit risk in the company and contingency funds were established to address related risk which can still be enhanced to ensure that processes are streamlined and objectives will be attained effectively and efficiently.

Table 3. Level of Contribution of the Factors Affecting the Credit Risk as Reflected in the Portfolio at Risk N= 66

Factors	Level of Contribution					TWP	WM	DE	Rank
	VHC	HC	MC	SC	LC				
	5	4	3	2	1				
1 Natural calamities (typhoon, earth	44	20	2	0	0	306	4.64	VHC	1



	quakes)									
2	Outbreaks (pandemic, ASF)	44	17	5	0	0	303	4.59	VHC	2
3	Health of clients (terminal illness, accidents)	26	28	12	0	0	278	4.21	VHC	4
4	Economic factors (prices of inputs & produce)	27	31	8	0	0	283	4.29	VHC	3
5	Geographical location (topography & distance of area from office)	1	17	30	12	6	193	2.92	MC	7
6	Competition (other lending & financing companies)	24	23	15	4	0	265	4.02	HC	5
7	Lack of technical knowledge and adequate training	3	23	14	22	4	197	2.98	MC	6
Average Weighted Mean								3.95	HC	

Legend:

Scale	Statistical Limits	Descriptive Equivalent	Symbol
5	4.21-5.00	Very Highly Contributory	VHC
4	3.41-4.20	Highly Contributory	HC
3	2.61-3.40	Moderately Contributory	MC
2	1.81-2.60	Slightly Contributory	SC
1	1.00-1.80	Least Contributory	LC

IV. CONCLUSIONS AND RECOMMENDATIONS

In today's complex and interconnected financial world, credit risk management is a critical skill for anyone involved in lending, borrowing, or investing. Thus, in this study, it was concluded that the extent of risk awareness inside the organization through employee feedback is a crucial step in developing and putting into practice prompt and efficient credit risk management strategies. Moreover, the organization's credit risk management objectives serve as a roadmap that should be frequently visited and given equal weight to guarantee that credit processes, procedures, and policies are evaluated and updated on a timely basis for an efficient and effective implementation of strategies. And, the nature of microfinance exposes them to a variety of risks, but with correct strategies in place and efficient execution, the organization could reduce the effects of credit risk.

Based on these conclusions, it is recommended that operation unit heads, subject to the review and approval of the board of trustees, improve their credit and background investigation process and procedures by incorporating credit scoring as a tool for clients' credit risk profiling and incorporating it in their CIBI form to generate more organized data that can be used for analysis. Moreover, the company may also want to subject awareness and understanding of employees of the loan loss provision to further study. In addition, they should update their operations manual to reflect the recently approved policies and procedures and to properly document the corresponding changes made to provide sufficient detail and guidance to the staff. Lastly, the management may include in their strategic planning the strategies to address risks of loan defaults based on the factors that have the



highest contribution to the company's portfolio at risk. This strategy may include availing the crop insurance program from the Philippines Crop Insurance Corporation for agricultural loans or integrating micro-insurance for clients which can be offered as an additional product of the company or in partnership with local micro-insurance providers.

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