# FACTORS INFLUENCING LOAN REPAYMENT IN MFIS OF NEPAL DURING COVID-19 PANDEMIC: A CASE STUDY OF PARBAT DISTRICT 

## BY

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RECOMMENDATION

CERTIFICATE

## DECLARATION OF AUTHENTICITY

I, Biraj Puri, declare that this GRP is my own original work and that it has fully and specifically acknowledged wherever adopted from other sources. I also understand that if at any time it is shown that I have significantly misrepresented material presented to SOMTU, any credits awarded to me on the basis of that material may be revoked.

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## TABLE OF CONTENTS

RECOMMENDATION ..... ii
CERTIFICATE ..... iii
DECLARATION OF AUTHENTICITY ..... iv
ACKNOWLEDGEMENT ..... $v$
ABBREVIATION ..... xi
CHAPTER I INTRODUCTION .....  .1
1.1Back ground of the study .....  1
1.2 Statement of the Problem ..... 4
1.3 Research Objectives ..... 5
1.4 Research Hypotheses ..... 5
1.5 Scope and Significance of the Study ..... 5
1.6 Definitions of terms ..... 6
1.7 Limitations of the study .....  8
1.8 Structure of the Report .....  8
CHAPTER II RELATED LITERATURE AND THEORETICAL FRAMEWORK10
2.1 Literature Review ..... 10
2.1.1 Theoretical Review. ..... 10
2.1.2 Empirical Review ..... 13
2.2.1 Borrowers' characteristics that influence loan repayment ..... 14
2.2.2 Business Characteristics that Influence loan Repayment ..... 17
2.2.3 Lenders Characteristics influencing the loan Repayment ..... 19
2.2.4 Loan Repayment Schedule ..... 22
2.3 Theoretical Framework ..... 22
CHAPTER III RESEARCH METHODS ..... 25
3.1 Research Design ..... 25
3.2 Selection of location. ..... 25
3.3 Population and Sample. ..... 25
3.4 Instrumentation ..... 26
3.5 Source and Method of data collection ..... 26
3.6 Data Management and Analysis ..... 26
3.7 Reliability and Validity of Data ..... 28
3.8 Ethical Consideration ..... 28
CHAPTER IV RESULTS AND DISCUSSION ..... 30
4.1 Client Characteristics ..... 30
4.1.1 Demographic profile of Respondents ..... 30
4.1.2 Skills ..... 32
4.2 Business Characteristics ..... 32
4.2.1 Types of business ..... 33
4.2.2 Age of the Business ..... 33
4.2.3 Business profit ..... 34
4.2.4 How amount received was invested ..... 35
4.2.5 Whether Business able to repay loan amount ..... 35
4.2.6 Location of the business ..... 36
4.2.7 Financing the unpaid business loan ..... 36
4.3 Lender Behaviors ..... 37
4.3.1 Descriptive analysis of lenders behaviors and loan repayment. ..... 37
4.3.2 Repayment of loan ..... 39
4.3.3 Correlation analysis ..... 41
4.3.4 Logistic Regression Analysis ..... 43
4.3.5 Omnibus Tests of Model Coefficient ..... 44
4.3.6 Predictive Capacity of the logistic Regression Model ..... 44
4.3.7 Logistic Regression Analysis For loan Repayment ..... 45
4.3.8 Hypothesis test from logistic Regression Analysis ..... 47
4.4 Qualative Analysis of loan Repayment in context of Pandemic ..... 47
4.5 Major Finding ..... 50
CHAPTER V DISCUSSION, CONCLUSION AND IMPLICATIONS ..... 53
5.1 Discussion ..... 54
5.2 Conclusion ..... 57
5.3 Implication of the study ..... 58
5.4 Recommendations ..... 58
REFERENCE. ..... 60
APPENDICES ..... 63

## LIST OF TABLES

Table3. 1 Analyze Table ..... 29
Table4. 1 Demographic profile of Respondents ..... 30
Table4. 2 Skills learn before starting business ..... 32
Table 4. 3Types of business ..... 33
Table 4. 4 Age of the Business ..... 33
Table4. 5 Business profit ..... 34
Table4. 6 Whether total loan amount invest in business ..... 35
Table4. 7 Whether business able to generate whole repayment amount for each repayment period ..... 35
Table4. 8 location of the business. ..... 36
Table4. 9Financing the unpaid business loan ..... 37
Table4. 10 Descriptive analyses of lenders behavior ..... 38
Table4. 11 Descriptive analyses of loan repayment ..... 40
Table4. 12 Correlation Matrix ..... 42
Table4. 13 Omnibus tests of model coefficient ..... 44
Table4. 14 Predictive capacity of the logistic regression model ..... 45
Table4. 15 Logistic regression analysis for loan repayment ..... 46
Table4. 16 Hypothesis test from logistic regression analysis ..... 47

## LIST OF FIGURE

Figure 2. 1Theoretical Framework ..... 23

ABBREVIATION<br>MFC: Master of Finance and Control<br>MFIs: Microfinance Institutions<br>NRB: Nepal Rastra Bank<br>SLC: School Leaving Certificate<br>SME: Small and Medium Enterprises<br>SOMTU: School of Management, Tribhuvan University

## EXECUTIVE SUMMARY

This study was carried out to analyze the factors influencing loan repayment in MFIsin the context of Nepal during Covid-19 pandemic. This was after the observation that despite various mechanisms being put in place, the level of loan defaults in MFIs was still high thus threatening growth, existence and even their survival. The main goal of every microfinance institutions is to operate profitability in order to maintain its stability and improve growth and sustainability. The study covered the MFIs within the Parbat district. Three independent variables were analyzed which were: business characteristics, borrowers' characteristics and lenders characteristics that influence loan repayment. Loan default was taken as the dependent variable. Descriptive survey was made with sample size of 170 respondents from registered microfinance institutions client's member in Parbat district. A simple random sampling method was used and data were collected by use of a set of questionnaire and questionnaire was filled by phone survey due to covid-19 pandemic. The descriptive statistics, correlation analysis, binary logistic regression analysis. Personal interview was also carried out to support the result of quantitative research.

The findings of the study reveal that education level of borrowers, skill of the borrowers and lenders characteristics influence repayment of loan but age of the borrower, number of family member dependent, business types, and business profit does not have any impact on the repayment of loan.COVID-19 pandemic has affect all types of business and creates poor cash flow in the market. According to the response of the respondents, COVID-19 has affected more to the service business but with comparison to manufacturing business, service business and agricultural business, trade business are less harm, because they are allowed to open at morning and the evening as per government rules. The main cause of large number of delay repayment of monthly installment is decrease in profit due to decrease in revenue of the business. Therefore, microfinance institutions should revising loan term by considering the time required for the Covid-19 affected sector to generate income, provide the digital facility, also lower the interest rate during this pandemic and rebate should be given to the good borrowers to encourage them to repay their loan on schedule.

## CHAPTER I

## INTRODUCTION

### 1.1Background of the study

Micro finance is recognized as an effective tool to fight poverty by providing financial services to those who do not have access to bank or are neglected by the commercial banks and financial institutions. Financial services provided by Micro Finance institutions (MFIs) generally include savings, insurance and credit (DulaAbebe, 2012).

Microfinance is defined as a development tool that grants or provides financial services and products such as very small loans, savings, micro-leasing, micro-insurance and money transfer to assist the very or exceptionally poor in expanding or establishing their business. It is mostly used in developing economies where SMEs do not have access to other source of financial assistant (Robinson,2003).

The Asian Development Bank (ADB) (2011) further defined microfinance as the "the provision of a broad range of financial services such as deposits, loans, payment services, money transfer and insurance to poor and low- income households and their microenterprises."

The 2000 microcredit summit campaign illustrated the concept of microfinance very precisely "Microcredit is about much more than access to money. It is about women gaining control over the means to make a living. It is about women lifting themselves out of poverty and vulnerability. It is about women achieving economic and political empowerment within their homes, their villages, their countries (Campaign,2000).

Microfinance is one of the appropriate mechanisms to identify the poor and disadvantaged community and to address poverty by providing income, employment and capacity building opportunity to the poor, disabled, dalits, marginalized group and destitute including women and their socio-economic empowerment with the support of social mobilization (Shrestha, 2007).

According to Nepal Rastra Bank,2013 Micro-finance is termed as the financial services rendered to the deprived group of the people and small entrepreneurs in saving, credit,
remittance, micro insurance and so on to help them in developing self-employment opportunities and various income generating activities. Microfinance institutions are the specialized types of institutions pursuing income generating activities promote the interest of the poor by providing banking and financial services and thereby contributing in the upgrading their economic and social standards.

Micro-finance is termed as the financial services rendered to the deprived groups of the people and small entrepreneurs in savings, credit, remittance, rural insurance, etc. to help them in developing self-employment opportunities and various income generating activities. Small size of loan, group savings, small-scale entrepreneurs, diversified utilization and simple and flexible terms/conditions on credit (without collateral) are the determining characteristics of its definition.

Microfinance focuses on very poor families with very small loans to help them engaged in productive earning activities or grow their tiny business. Microfinance has come to include new in broader range of service and the poor and very poor, that lack access to traditional formed financial institutions require a variety of financial product.

The history of formal microfinance in Nepal began during 1950s when the government established 13 credit cooperatives society to provide financial service in Chitwan District. So, the cooperative movement becomes the first vehicle of microfinance in Nepal. Microfinance has encouraged income generating activities among the rural entrepreneurs by providing small loans and saving facility. It was acknowledged as an official poverty alleviation mechanism only in the country's sixth plan (1980181-1984185). The Grameen Bank Model of Bangladesh was replicated in Nepal with the establishment of Eastern and Far-western Grameen Bikas Banks (GBBs) in 1992.

COVID-19 is a disease caused by a new type of coronavirus (SARS-CoV-2), first identified in China in December 2019 in the Chinese municipality of Wuhan, it quickly spread to other regions of China and the world. In Nepal, the first case of COVID-19 was confirmed on 23 January who had returned from China on 9 January 2020. In response to contain the transmission of COVID-19, the government of Nepal imposednational wide lockdown on $24^{\text {th }}$ March 2020, restricting vehicular movement and shutting down economic activities except very essential ones. Fully lockdown measure were continued until June 15 after which the government opened partially which continued until 21 July and the
government imposed relaxed imposing prohibition in different area by local administration through not National wide .

Malik et al. (2020) have researched those implications of Covid-19 for microfinance institution through rapid response. They found that, an average ,week -on -week sales and household income both feel by about $90 \%$.,as a result, $70 \%$ of the sample of current microfinance borrowers reported that they could not repay their loans.

Regarding the impact on microfinance sector, Nepal Microfinance Bankers' Association (2020) conducted the survey with Chief Executive Officers of 54 MFIs during 8 May to 28 May 2020. The report states that all sectors of MFIs' loan portfolio are affected due to lockdown and the portfolio quality has decreased, expecting non-performing loans to go up with fall in operating self-sufficiency and profitability. The report also mentions that growing anxiety in staff because of uncertainty of future fate of institutions and MFIs believe that clients have lost income and need more time for reviving their business.

Due to the lockdown, MFIs are not able to conduct regular Centre meeting with clients to carry out transaction. Further, NRB has given a 3 month payment holiday up to midjuly2020 to all borrowers, as an initial measure to respond to the pandemic. Nepal is agriculture based country, farmer are unable to sell their produce or are forced to sell at a very low price as the supply chain is disrupted due to lockdown.

In Nepal, as in many other developing countries, MFIs are at the forefront of providing financial services to the low-income population. According to NRB some 4.5 million people mostly women are availing financial services from 87 MFIs in Nepal as of Mid-Jan 2020. A total of NRB 256 billion loan outstanding with around 2.8 million clients. The World Bank has estimated that Nepal will witness a $14 \%$ reduction in the remittance in 2020 this will affect the loan repayment of MFIs because remittance become major source of many low-income household.

Microfinance is no stranger to crisis, but the COVID-19 is different. Unlike previous downturns which originated from financial markets, the current crisis is spread through an invisible virus which is difficult to contain and control. The virus not only negatively affects businesses and commerce; it also kills people in numbers unseen for a century. It creates social disruption and changes the way we live and work.

### 1.2 Statement of the Problem

Microfinance institutions offer medium amount of loans mostly to business people who cannot afford collaterals to get loan from the main stream financial institutions. Despite the recent growth in the microfinance sector, the sector is faced with challenges of loan repayment defaults by clients. Individuals groups have tried using group's equality for collaterals which is expected to ensure the revolving of money for the benefits of other individual's members of the group. However, loan delinquency has continued to cause serious challenges to most of the microfinance institutions in pandemic situation. Sinha and Dhakal (2020) analyzed that COVID-19 lockdowns have posed challenges for collection of repayment from clients and have effects on the service sectors like hotels, restaurants, beauty parlors, hair salons. Period of Covid-19 lockdown condition it has been difficulty for many microfinance institutions to manage their business normally. As of July 16, 2020, MFIs report a decrease in outstanding loan balance in excess of $20 \%$.As June 2020 come around repayment level grew to the normal $98 \%-99 \%$ level with regular operation of all branches. The COVID-19 pandemic threatened lives and livelihood, and with that has creates immediate challenges for institutions that serve affected communities. They found COVID -19 lockdown had decreased household income due to decrease in business sales. MFIs were suffering from both a lack of repayments and a lack of access to capital and liquidity from funders (Malik, et al. 2020). COVID-19 is now not only a health crisis but an economic risk that has disrupted billions of lives and endangered global economy. Most of the daily wage workers, micro and small businessman, as their wages have fallen may hardly to able to repay their loans. In addition, the processing of microfinance loan most of the occurs in cash, at branch or at community meeting. Therefore, apart from the earnings of the consumers, the mechanism of repayment is often interrupted.

Hence, this study focuses on loan repayment analysis of Microfinance Institutions in context of present condition of COVID-19 of Parbat District.

The studies try to answer the following questions
> To what extent clients' personal characteristics affect the repayment of loans in Microfinance financial Institutions?
> How do business characteristics of clients influence loan repayment tendency of Micro-finance Institutions?
> How do lenders' behaviors affect their loan repayment tendency in among microfinance Institution of Nepal?
> How do loan borrowers manage to repay loan during Covid-19 pandemic?

### 1.3 Research Objectives

The general objective of the study is to determine the factors influencing loan repayment of MFIs in the context of Covid-19 of Parbat District. However, Specific objectives are as follows:
> To examine the effect of clients' personal characteristics on loan repayment tendency in Microfinance Institutions.
> To analyze business characteristics of MFIs clients and their influence on influence loan repayment in microfinance Institutions.
$>$ To evaluate the relationship between lenders' characteristics and loan repayment in microfinance institutions of Nepal.

### 1.4 Research Hypotheses

$\mathrm{H}_{1}$ :There is significant relationship between client characteristics and loan repayment status among microfinance loan beneficiaries in Parbat District.
$\mathrm{H}_{2}$ :There is significant relationship between business characteristics and loan repayment status among microfinance loan beneficiaries in Parbat District.
$\mathrm{H}_{3}$ : There is significant relationship between lender's characteristics and loan repayment status among microfinance loan beneficiaries in Parbat District.

### 1.5 Scope and Significance of the Study

Micro-finance institutions shall continue in providing credit to the poor people so that the people come out from the poverty and become productive citizen. In order to continuously provide financial services to the poor people, these microfinance institutions should have a minimum rate of loan default.

The present study is aimed to contribute to policy and decision maker in such a way that the factors and level of effect identified was be important for them to assess and revise existing policy and strategy. Moreover, the study was give benefit to microfinance institutions managers to resolve their institutional problems using capacity building and
revising institutional procedure and rules. The study will provide background information to other researchers or scholars who would like to investigate more on factors contributing to loan defaulting. The finding will further provide secondary material for student in micro-finance and will encourage and motivate on diverse issues on loan defaulting and micro-finance.

### 1.6 Definitions of terms

Microfinance: is the provision of financial services to low-income clients, who traditionally could not access banking and related services from main stream bank due to lack of collaterals and credit history.

Credit Terms: is one of the most important variables in microfinance. It refers to the period of time during where the entire loan must be repaid and affected the repayment schedule and ultimately suitability of the use of loan. Once credit terms are matched with clients' needs, the repayment of loan will be done on time and in full.

Microfinance Institutions: are institutions that provide suitable financial and other services using state-of-the-art procedures and systems at low cost to meet the need of lowincome sections of the population and in genuine sense act as the finance intermediaries (Wolday, 2000).

Loan: An arrangement in which a lender gives money or property to a borrower and the borrowers agrees to return the property or repay the money, usually along with interest, as some future point(s) in time.

Default: Default refers to a situation where a loanee fails to repay a loan .It occurs when a borrowers cannot or will not repay the loan and the MFI no longer expects to receive payment.

Repayment: Repayment is the act of paying back money previously borrowed from a lender. It is the return of funds happens through periodic payments which include both principal and interest and loans can usually be fully paid in a lump sum at any time through some contract may include an early repayment fee (Twin, 2020).

Arrears: Refers to a late payment, partial payment or a skipped payment.

Loan officer: This is an employee of microfinance institution whose work is to assess customers and appraise loans as well as ensure that all loans are repaid as per the terms of the loans awarded.

Credit policies: Credit policy is referred as apparent written strategies that place the terms and conditions for credit, borrower requirement criteria, process for collections and steps to be engaged when a customer misbehaving. It is also referred to as collection policy. If there is no clear credit policies the defaulting rate will increase in microfinance institutions. A clear follow up should be made so as to reduce this problem.

Age: It is a continuous variable measured by total number of years from the respondent's birth until the survey was conducted. As the age progress, borrowers acquire experience, knowledge, stability and honesty which in turn might help them to accumulate wealth over time which would enable borrowers to repay their debt in time than young borrowers.

Education level: This is a continuous variable measured by level of formal education measured by the number of school years. It is assumed that educated borrowers may acquire better knowledge in choosing a profitable business, could have better market information, and exposure to technologies.

Business Experience: Borrowers with better knowledge and experiences on the relevant businesses can profitably run their businesses. As the time of crises happening to the specific business segment, borrowers with previous business exposures and experiences may recover their business and will succeed consequently. On contrast, borrower with no or less experience on the market and know how on business activities might face high probability of challenges to run profitably. The good experienced the borrowers are the more they can succeed their business and repay the loan timely. On the other hand, the less they are experienced the highest the probability of being defaulters they are

Loan supervision: If there is a continuous follow up and supervision visit to evaluate the loan utilization and repayment, this makes borrowers to observe their obligation and improve the proper utilization of the loan thereby improving repayment performance.

House hold size: If the borrower has large number of family members in the house hold, a considerable amount of income from the project could be diverted away from loan repayment to household consumption.

Training: Capacity building activities through delivering workshops and short term trainings by well-organized and trained personnel to borrowers could enhance their well understanding about the credit services and maintain their skills and knowledge on the business environment. Borrowers who are equipped with relevant trainings and skill developments can effectively manage and monitor the day to day operations of their business. Training has an indispensible contribution to the borrower's business success. Therefore, delivering an adequate and sufficient training to all borrowers in a consistent manner may increase the repayment performance of borrowers.

### 1.7 Limitations of the study

There are certain limitations that need to be noted in this study. A paper-based questionnaire fails to gather qualitative information such as inner feelings and perceptions of respondents about the hidden reasons behind loan default with MFIs in Parbat. Data was collected from microfinance borrowers only in the Parbat. Responses from other stakeholders such as MFI managers, executives, family members of loan borrowers and group members can help to understand the true picture of microfinance loan default. This study is done in the situation of COVID-19 so the result may not be generalized to normal. Simple random sampling has been used which may not give maximum reliability and accuracy.

### 1.8 Structure of the Report

The major section of this thesis organized into five chapters.
The first chapter of the study deals with the introduction part of the research which covers background of the study, statement of problems, research objectives, research questions, research hypothesis, scope and significance of the study, some definitions related to loan characteristics and influencing factors, limitation of the study and outline of the report.

Chapter two covers a review of some important theoretical and empirical studies on factors affecting loan repayment performance are presented.

Chapter third deals with research method which contain research deign, population and sample, instrumentation, source, method of data collection and data analysis technique used in this research.

Chapter fourth deals with analysis and findings of survey which contains various descriptive and regression table related to the factors that influencing loan repayment of MFIs clients. Finally, fifth chapter presents the discussion, conclusion and implication of the study.

## CHAPTER II

## RELATED LITERATURE AND THEORETICAL FRAMEWORK

This chapter closely reviews literature related to loan repayment default by clients in microfinance institution. Both theoretical and empirical literatures are reviewed. The conceptual framework is also discussed.

### 2.1 Literature Review

The main aim of microfinance is to provide funds for investment in microbusiness that is expected to increase income to investor households and hence improve their livelihood. Microfinance is widely known as a provision of financial services such as credit ,saving, deposit, insurance and repayment services to those who are deprived of accessing into conventional financial services because they are poor and they cannot offer collateral (Ledgewoodn, 1998: Little field, Murduch \& Hashemi 2003; Robinson, 2001). As Bayang (2009) put it at the time of loan disbursal, the poor borrowers are pre-occupied with pressing economic problems ranging from shortage of food, lack of seeds for planting and paying medical bills among others, a practice which makes micro finances repayment difficulty.

### 2.1.1 Theoretical Review

## Loan Repayment

According to Alex (2014), successful loan repayment is defined as the ability to repay the loan as per the loan contract and default occurs when a debtor has not met his or her legal obligations according to the loan contract. For example a debtor has not made a scheduled payment, or has violated a loan covenant (condition) of the debt contract According to Mukono (2015), a delayed installment said to be delinquent and a repayment that not been made is said to be in default. Default on borrowed funds could arise from unfavorable circumstances that may affect the ability of the borrower to repay. Delays of repayment lead to two ominous effects for financial institutions, which include non-refinancing of a large number of safe borrowers and the collection of late installments by the loan officer driving to an increase of its loads without compensations in resources. In addition, because of the delay of a member, other members incited then to delay their repayment and even to negotiate with the institution the possibility to abandon the last part of the loan.

## Theories guiding the research

## Solidarity Circle Theory

This research employed the solidarity circle theory by a flourishing initiator of Microcredit of the Grameen Bank in the 1970's in Bangladesh named Muhammed Yunus who presented some difficulties those low income earners faces to get the loans. He deliberately made a credit programmer that made on bringing any collateral for people to get loan as it was contrary to the many of the structured financial institutions. He enabled loans to groups best known as a joint liability methodology in issuing loans to diminish the tendency of loan to be used wrongly contrary to what the loan was meant to be used by the group where the group members assured one another and if it happens a member to default the entire group is deprived of accessing the entire group is deprived of accessing loan in future. For group members to keep on enjoying the loans, closely monitoring by one another in the use of the loan is highly needed so as to stay away from loan repayment defaulting. This theory was significant to this study in that the borrower's loan defaulting rate is reliant on numerous aspects such as credit policies, the social economic factors.

## The Moral Hazard Theory

The Moral hazard theory was developed by Stigliz \& Weiss (1981). The theory states that the lender does not use the interest rate as a sorting device because changes in the interest rate may affect the riskiness of the pool of borrowers. The model assumes that riskier borrowers have access to riskier projects with lower probability of success but a higher return if they succeed, while safe borrowers have projects with higher probability of success but a lower return. The moral hazard theory asserts that, a risk arises when one party to a contract changes his behavior to the detriment of the other party once the contract has been concluded. Moral hazard arises when individuals, in possession of private information, take actions which adversely affect the probability of bad outcomes (Mirrlees, 1999). Moral hazard theory is relevant in this study in that in most cases lenders are not certain that once a loan is advanced to the borrower (SMEs), it was used for its intended purpose, or that the borrower applies the expected amounts of complementary inputs, especially effort and entrepreneurial skill which is the basis for the agreement to provide the loan. If these inputs are less than expected then the borrower may be less able to repay it (Fatemi, 2006). Loan diversion leads to moral hazards, which may in turn, affect loan repayment by small and medium enterprises since the loan was diverted from its intended business purpose. According to Agyapong (2011) the fact that these borrowers
can use the funds for other purposes other than those stipulated in the loan agreement then this means that banks should not only investigate the credit worthiness of the small business borrowers but should also monitor their activities once they have obtained the loans. The situation of moral hazard therefore is brought about by failure of the lender to monitor the actions of the borrower once credit is obtained. This theory has been criticized because it presents a narrow model of human motivation and that it makes unnecessary negative moral evaluations about people. Focusing on self-interested behavior makes it possible that for the wider range of human motives to be ignored, including the need for achievement, altruism, respect and intrinsic motivation towards an inherently satisfying task (Agyapong, 2011). (Kuperman, 2008a) argues that Moral hazard theory does not focus solely on the relationship between the borrower and the lender to explain why the borrower would change his behavior to the detriment of the lender once the contract has been concluded.

## Liquidity Preference Theory

These theories discuss more the conventional rising inclined arc as addressed by Keynes John (Carter et al. 2004). The reason to be many people investing in microfinance institutions favor not long period securities that provide them larger liquidity payable to default risk and interest risk, the more a security has to be assumed until its maturity. Those with of long period securities tolerate the danger so it assumes interest rates will go up throughout the credit time make their set investments rate less expensive. Likewise inauspicious changes in some of the financial situations of the business also do change according to time that it can be found that its certainty do differ from today, tomorrow, next month to a year and therefore the prospect of loan default go higher above a longer phase. Investors are thus ready to agree to the more minimum rate of credit return just on most liquid securities and the shortest term. They will need upper interest rate to recompense for the upper risks that go along with longer conditions. This theory underlined the importance role made by time value of money and also confirmed that value of money today is more than a upcoming value of money since value of money at hand is a certain money as it has no doubts nearby it. This money can be also invested to obtain further proceeds. However, theory undoubtedly did not reveal and understand that some investments are due to a certain value of money at hand. Therefore, there is a great important that a genuine study to be made to establish some factors leading to poor loan performance as element of prospect investments among ambiguity (Carter et al.2004).

### 2.1.2 Empirical Review

Angaine (2013) conducted a study to analyze the factors influencing loan repayment in microfinance institutions. The research covered the mfis within the Meru municipality. Three independent variables were analyzed which were: business characteristics, borrowers' characteristics and lenders characteristics that influence loan repayment. Loan default was discussed as the dependent variable. Descriptive survey was employed with the target population being 39 Loan Officers of registered micro finance institutions and 5280 registered mfi clients from various groups in Meru Municipality. A census of 39 loan officers was targeted and a sample size of 360 respondents from registered group members. The sampling was done using stratified proportionate sampling and simple random sampling methods. Data was collected by use of questionnaires and interviews and analyzed using both descriptive and inferential statistics. Frequency tables were used for presentation of the study findings. The study established that education level, number of dependents, and hobbies were individual characteristics influencing loan repayment. Business characteristics influencing loan repayment were: how long the business had operated, its management and type. The lenders characteristics that influenced loan repayment were: groups handled, period taken to qualify new members and the criteria used to evaluate credit worthiness.

Eshetu,(2019) conducted a study with the aim of assess the factors that affecting loan repayment performance of MFI in Jimma town the case of three microfinance institution .In this study ,a structured questionnaire was used to collect the primary data and for qualitative study in depth interview were held with loan officers and management of the institution. The study analyzed the socio-demographic factors that affect the borrowers loan repayment performance and a sample of 390 borrowers was fixed from the three MFIs using the convenience sampling technique. The result of the binary logistic regression analysis revealed that the level of education, loan amount and loan category have insignificant effect on the probability of the SMCP loan repayment. On the other age, gender, type of business has negative relationship and gender and credit experience have positive relationship with the loan repayment probability.

Ann Mukono (2015) used the logit regression model and examined the determinants of loan repayment by small and medium enterprises in Nairobi Country Kenya. The study revealed that firm characteristics (ownership structure, type of firm, firm location, firm size, age of the business, registration status ,profitability, asset ownership ,registration
status, profitability, asset ownership, type of business and borrower characteristics (age of borrower, gender of the borrower, level of education, business experience, house hold size, credit use experience, household income, on-business income ,type of business activity, amount of business investment ,borrowers attitude and family background) and positively influence loan repayment by small and medium enterprises. Whereas the loan characteristics (loan size, loan repayment period, collateral value, number of installment, loan application costs, loan type, purpose of loan ,previous loan repayment mode, and length of time before repayment) and lender or firm characteristics ( interest rate, penalty of lateness, credit analysis procedure, lending policies, time lag between loan application and disbursement and stringent loan procedures) are negatively influence loan .

Fitsum (2014) conducted a study with the objective of identify factors affecting loan repayment performance in Kafa zone-OMF. A total of twelve explanatory variables were included in the regression. The results of the descriptive statistics and the binary logistic model show that sex, age, education, source of income before loan, method of lending ,loan size ,suitability of installment period and timeliness of loan release were important in influencing loan repayment performance of the borrower. However, family size, distance of borrowers from institution, residence of borrowers, and frequency of collection were found to be insignificant in model.

According to a study conducted by Angaine and Waari (2014) various factors relating to clients characteristics, business characteristics and lenders characteristics had a significant impact on the loan repayment by borrowers.

### 2.2.1Borrowers' characteristics that influence loan repayment

The character of a customer is important to analyze his willingness to pay. Empirical work by Arene (1993) revealed income, farm size, age of farmer, farming experiences and level of education of farmers contributed positively to the credit worthiness of farmers .Accessibility to credit by the borrowers will depend on the seriousness MFIs attach to the borrower's characteristics before extending credit to clients (Nanayakkara and Stewart, 2015). For instance, borrowers who own assets will easily access credit since it reduces the risk of the institutions losing its funds. These characteristics include demographic characteristics (Age, gender, education, marital status, experience, training and number of times an applicant has ever borrowed a loan from the MFIs)ability to pay and assets owned by the borrowers. According to Nawai and sheriff (2010) borrowers characteristics include
age, gender, income status, credit use familiarity, type of business cum volume of investment and may influence loan repayment similarly Nawai and Shariff for any credit scheme to operate effectively, it is importance to know the character of borrowers in relation to payment. This calls for investing in information gathering by MFIs on their potential borrowers and always be mindful when setting performance targets against giving of credit to borrowers. Bhatt and Tang (2002) list a set of influential factors on the loan repayment performance such as gender, age, experience the borrower has had in the same sector, education, income, business sector, formality of the borrowers business, social ties of the borrower, group homogeneity, payback period, types of loan, loan size, proximity of the borrowers, business to the lending agency, and motivation of the borrower for receiving future loan.

According to Ledgerwood (2000) the ability to put the loan into productive use will depend upon the borrowers' characteristics which may take various social economic dimensions including gender, income level, the family size, education level and age. According to Abraham (2002) employed Tobit model to analyze the determinants of loan repayment performance of private borrowers around Zeway, Ethiopia. According to his finding; having other source of income, education, work experience in related economic activity before loan were enhancing loan repayment, while loan diversion, being male borrower and giving extended loan repayment period were undermining factors of loan recovery performance of projects.

## Gender

Studies show that female borrowers have lower risk of default and consequently have better loan repayment performance compared to male borrowers (Rasian and Abdkarim,2009;Mokhtar et al,2012: Benneet and Goldberg,1993).Bennett and Goldberg (1993) suggest this may happen because women use microcredit as a tool to empower their family economics. However, Godquin(2004) run a study and conclude that female and male borrowers do not show a significantly different repayment performance compared to male borrowers.

## Age

Loan repayment performance is also found to depend on the age of borrowers (Mokhtar et.al, 2012). In a research conducted by Aren (1993), the age of borrowers are found out to be one of the factors that affect loan repayment default. Other researcher such as Kashuliza
(1993), Eze and Ibekwe (2007) and Wangnna \& Awunyo (2013) have also determined that age of borrowers will affect loan repayment performance. Similarly, Fikirte(2011) found out that age of borrowers has a relationship with loan repayment default. The higher the age of borrowers, the lower the rate of loan repayment default because youngsters do not have much experience in managing their wealth and therefore they have higher rate of loan default.

## Education level

This variable is expected to have a positive impact on repayment performance in general. Considering normal circumstances, a more educated borrower is expected to use the loan effectively as compared to a less educated on. Okurut,(2006 \&,2008), Bakhshouden and Karami (2008),Peprah,(2012),Clamara et al.(2014), Kacem and Zauari(2013) established that education level is a positive and significant determinants to credit access. The institution is based on the idea that education builds human capital hence enhancing the effective use of credit. Oncontrary, studies by Rand (2007) and Zelier(1994) showed that years of schooling have a negative correlation with access to credit. The negative correlation is a reflection of the possibility that highly educated applicants have lower credit demands, hence are more likely to know when their loan applicant will be rejected, refraining from application.

## Family Size

If the respondent has a large number of family members, they need more income in order to cover the expense of their household members. Therefore, the borrower may use the loan directly for their daily consumption and other expenses which in turn increases the default rate. On the other hand, number of dependents is the number of nonworking members of the family (Fikirte, 2011; Firafis, 2015).

## Skills

In order to effectively implement what the members of microfinance planned, training and follow up play a significant role. Training is one the important requirement for the success of microfinance institution. If lenders provide various training the clients will able to understand the rules and regulations easily. They also develop the skill how to do business and money utilization training is needed not only for clients, but also for loan officer. Jaffari et al.(20011) indicated that low attention gives to clients skill development as a weakness of microfinance institution.

Firafis (2015) conducted a study in Eastern Hararghe Zone of the Harari Regional State, Ethiopia to assess factors affecting loan repayment performance of Harari Microfinance Institution. The survey was conducted in three kebele Associations having the maximum number of borrowers, by selecting 120 sample households through systematic random sampling between defaulters and non-defaulters of the MFI. Out of 120 borrowers ,50\% were defaulters, and the remaining half was non-defaulters. Pre-tested structured interview schedules was used to collect primary and secondary data. Key informant interviews are focus group discussions were used to generate the necessary qualitative data. The collated data were analyzed by employing descriptive statics and logistic regression (binary logit). A total of fifteen explanatory variables were included in the empirical model and out of these, nine were found to be statistically significant to influence the dependent variable. These significant variables are : saving habit of borrowers, loansize, perception of borrowers on repayment period, source of income, availability of training ,business experience, business type, family size, and the purpose of saving were found influencing loan repayment performance as evidenced from the model statistic (Significant at 1,5 and $10 \%)$.The econometric result revealed that the probability of default increase as the family size increases ,when the borrower has negative perception on repayment period, less training ,low business experience ,poor saving habit and only single source of income.

### 2.2.2 Business Characteristics influencing the Loan Repayment

Business characteristic may include factors like location, registration that is formal or informal, size, nature and type of business it is involved in. According to Mpunga (2004) assert that there was significant relationship between the type of business ,age of business ,number of employees, business profit and loan repayment default. Various studies emphasize on the importance of locating businesses in strategic areas. The right location depends on the type of the business and the target customers. Prime locations lead to increased sales volumes and as a result increased revenues. Businesses located in the prime areas of their target market tend to have high loan repayments than those not strategically located. Businesses located in close proximity to town centers tended to have high loan repayments than otherwise (Zikmud 2000, Nguta et al 2013, Angaine \& Waari 2014). The finding also shows that distance from the lender office with borrowers business will influence borrowers repayment performance, and the result is consistent with previous micro finance research (Bhatt \& Tang, 2002;Oke et al; Derban et al.) whether the closer to the lender office, the higher possibility of borrowers to repay their loan and have better
communication with the MFIs. Being closure with the lender office will gave an extra advantage to the lender and borrower. This is because li is easy to monitor borrowers business and for borrowers to repay their loan.

Age of the firm refers to the length of time that a firm has existed, usually expressed in years and considered an important determinant of performance. Different studies reveal that businesses that have been in operation for less than one year are susceptible to low loan repayments than businesses that existed in more than one year. Firms that have operated for more than 10 years tend to have very high loan repayment rates than those that have operated for a lesser period (Nawai \& Shariff 2010, Nguta et al 2013, Angaine \& Waari 2014). Business that have operated for long have weathered the storms of recession and growth in economies thus make financial commitments given this information.

Firms can be categorized as small, medium or large given the number of employees in the firm. Firms that employ between 1-5 employees are considered small, employing 5-10 medium and those employing above 10 employees considered large. Large firms have better repayment performance, followed by the medium firms according to various studies. Small firms have the lowest repayment rates as they tend to have low sales volume and thus difficulty in repayments (Nannyonga, 2000, Nguta et al. 2013 and Angaine \& Waari, 2014).

Assefa (2005) employed a logit model to estimate the effects of hypothesized explanatory variables on the repayment performance of rural women credit beneficiaries in Dire Dewa, Ethiopia. Out of the twelve variables hypothesized to influence the loan repayment performance of borrowers, six variables were found to be statistically significant. Some of these variables are farm size, annual farm revenue, celebration of social ceremonies, loan diversion, group effect and location of borrowers from lending institution.

The result is in line with studies that have been done by Von Pischke (1991) and Nannyonga (2000). While, the higher the total loan received by the borrowers, the higher probability of borrowers to pay their loan on time. This is because the borrowers have enough funds to finance their business that makes them get more profit and increase their business profile sector of business greatly affects loan repayments. Businesses in the trade sector have high loan repayments followed by businesses in the agricultural sector, service industry with manufacturing sector recording highest loan defaults (Nguta et al., 2013)

The size of business relates to the amount of income obtained from it. Mpunga (2004) asserts that the level of business income is an important factor that would determine the credit worthiness of a client. At low levels of income, business have little money to save while at higher levels much can be saved and even used to purchase collaterals which can be used as loan securities. Such securities can be sold to repay loans.

According to Horne (2007) the excess of the security pledged over the amount of the loan determines the lender's margin of safety. If the borrower is unable to meet an obligation, the lender can sell the security to satisfy the claim. If the security is sold for an amount exceeding the amount of the loan and interest owed, the difference is remitted to the borrower. If the security is sold for less, the lender becomes a general, or unsecured, creditor for the amount of the difference.

Horne also asserts that the value of the collateral to the lender varies according to several factors. Perhaps the most important is the marketability. If collateral can be sold quickly in an active market without depressing the price, the lender is likely to be willing to lend an amount that represents a fairly high percentage of the collateral's stated value. On the other hand, if the collateral is a special purpose machine designed specifically for a company and it has no viable secondary market, the lender may choose to lend nothing at all.

The life of the collateral also matters. If the collateral has a cash flow life that closely parallels the life of the loan, it will be more valuable to the lender than collateral that is much longer term in nature. As the collateral is liquidated into cash, the proceeds may be used to pay down the loan. Still another factor is the riskiness associated with the collateral. The greater the fluctuation in its market value or the more uncertain the lender is concerning market value, the less desirable the collateral from the stand point of the lender. Thus, marketability, life, and riskiness determine the attractiveness of various types of collateral to a lender and, hence, the amount of financing available to borrower.

### 2.2.3 Lenders Characteristics influencing the loan Repayment

The lenders characteristics include their policies, attributes, objectives and work performance that govern the lending criteria.

According to Pandey (2008), credit policy provides a framework for the entire management practices. Written credit policies are the cornerstone of sound credit management, they set objectives, standards and parameters to guide microfinance officers
who grant loans and manage loan portfolio. The main reach for policy is to ensure operations consistency and adherence to uniform sound practices. Policies should be the same for all and is the general rule designed to guide each decision, simplifying and listening to each decision making process. A good credit involves effective initiation analysis, credit monitoring and evaluating.

Maina \& Kalui, (2014)where they assessed institutional factors contributing to loan defaulting in MFIs in Kenya, it established that credit policies, loan recovery procedures, and loan appraisal process had a significant impact on the loan default rate or loan delinquency occurrence.

Jha and Hui (2012), compared the financial performance of different ownership structured commercial banks in Nepal based on their financial characteristics and identified the determinants of performance exposed by the financial ratios, which were based on CAMEL Model. Eighteen commercial banks for the period 2005 to 2010 were financially analyzed. In addition, econometric model (multivariate regression analysis) by formulating two regression models was used to estimate the impact of capital adequacy ratio, nonperforming loan ratio, interest expenses to total loan, net interest margin ratio and credit to deposit ratio on the financial profitability namely return on assets and return on equity of these banks. The study reveal that poor credit appraisal ,inadequate follow-up and poor supervision of loans were the factors caused high ratio of Non-performing loans for public bank in Nepal. Addisu (2006), finds lack of clear plan for borrowers reduce the loans repayment performance for informal sector borrowers in Ethopia.

Many research has been done on the lending criteria to be used, however not much has been on the reasons as to why people fail to pay their loan even after meeting minimum criteria. Yunus states that, microfinance does not use collateral ins tread it uses the three C's of credit Character being the first C, refers to how a person has handles past debt obligation. It can be evaluated from credit history, personal background, honesty and reliability of the borrower. The next one is capacity; this means show much debt a borrower can comfortably handle. Income Streams are analyzed and legal obligations looked into, which could interfere with payments. Finally, Capital this means current available as sets of the borrowers, such as real estate, saving or investment that could be used to repay debt if income should be unavailable (Mwenje, 2006).

According to Champagne, et al. (2007) the microfinance institution must screen individual borrowers and their businesses creditworthiness before they provide collateral. This method is strong because in the event that a borrower defaults, the microfinance institution charge on collateral and reduces the bank risk. Since the borrower has more information than microfinance institution, screening of client can sometimes not be feasible given that potential borrower may hide some information making microfinance institutions do monitoring on borrowers after loan disbursement so that borrowers use the loan for the purpose intended. This in turn increases microfinance institutions cost of loans to individuals.

Malik et. al. (2020) have researched the implications of Covid-19 for microfinance institutions in Pakistan through rapid response' phone surveys of about 1,000 microenterprise owners, a survey of about 200 microfinance loan officers, and interviews with regulators and senior representatives of microfinance institutions. They found that, on average, week-on-week sales and household income both fell by about $90 \%$., as a result, $70 \%$ of the sample of current microfinance borrowers reported that they could not repay their loan.

Lakuma, Sunday, Sserunjogi, Kahunde, and Munyambonera (2020) studied how COVID-19 impacted small and medium enterprises in Uganda. Although Uganda adopted serous measures of containment to curb the spread of the pandemic like closing schools, restricting the movement of people in and out of the country, and social distancing, the virus took its toll among the population and affected businesses of different sectors. The study showed that three-quarters of businesses surveyed laid-off employees in the last three months due to reduced business activities caused by COVID-19. Agriculture businesses have experienced the largest constraints in accessing markets due to transport restrictions, quarantine, and sanctions of weekly markets. More than $51 \%$ of the respondents indicated that if the current restriction persists, they would close their businesses within three months, while $34 \%$ indicated that they would be able to survive up to six months. About $35 \%$ of the respondents also stated that the pandemic affected their loan repayment ability.

Because of Covid-19, like whole economy, MFIs have also been affected in many ways. Lending to borrowers has broadly declined due to lack of demand for loans. People, instead of borrowing and investing, prefer to save resulting in increased saving in MFIs.

### 2.2.4 Loan Repayment Schedule

Loan repayment schedules as the time that loan borrowers are supposed to pay for it. Repayment schedule guides the loan borrowers in their repayment schedule. There are several studies that show repayment schedule will affect the loan repayment defaults. Nawai \& Mohd Shariff (2013) has found out the fact that when the business of the loan borrowers do not have enough of return to cover the scheduled payment on the repayment day, the loan borrowers will choose to defaulting their loans. Therefore, there is a relationship between the repayment schedule and loan repayment defaults. Charles, Raphael, Dorcas and Kwadwo (2013) has defined repayment schedule as the time that loan borrowers are supposed to pay for it. Repayment schedule guides the loan borrowers in their repayment process.

The reasons for microfinance loan default have been identified differently by different stakeholders (from borrowers to loan officers and MFIs). The borrowers' income level, loan interest rates and loan period are factors leading to loan default. For example Kohansal, and Mansori (2009) showed that the income of farmers in the kohansal-Razavi province of Iran has a positive effect on loan repayment while loan interest and the number of installment have a negative effect on loan repayment performance. Inadequate financial analysis is another cause of microfinance loan default (Shelia 2011).

There are several studies that show repayment schedule will affect the loan repayment defaults. Nawai and Mohd Shariff (2013) has found out the fact that when the business of the loan borrowers do not have enough of return to cover the scheduled payment on the repayment day, the loan borrowers will choose to defaulting their loans. Therefore, there is a relationship between the repayment schedule and loan repayment defaults.

Some repayment schedules are too tight and hinder borrowers to pay the loans on time hence loan repayment default. A lot of borrowers' business undertakings cannot generate enough cash to repay the stated amount and later fail at all to pay the loan hence defaulting. Microfinance should also consider borrowers situation in setting the repayment schedule as to enable them to repay on time and not defaulting.

### 2.3 Theoretical Framework

The concept model of this study is to analyze the factors influencing loan repayments in MFIs in Parbat. From literature review, various empirical studies reviewed by the author
cite probable factors that influence loan repayments. This study focuses on client characteristics, business characteristics and lender characteristics to carry on empirical study to investigate on the probability of these variables affecting loan repayment by the MFI clients in Parbat. From the conceptualization of the study variables, the conceptual framework is presented as Figure 2.1

INDEPENDENT VARIABLE
DEPENDENT VARIABLE

## Clients Characteristics

-Age
-Level of education
-Number of dependent
-Skills

| Business Characteristics |
| :--- |
| -Type of the business |
| -Age of the business |
| -Business Locations |
| -Profit generated |


| Lenders Characteristics |
| :--- | :--- | :--- |
| -Company Policy |
| -Company attributes |
| -Company objectives |
| -Work Performance |$\quad$.

Adapted from: Againe and Waari, (2014); Giri and Shah, (2019)

## Figure 2.1Theoretical Framework

Regarding the subject factors influencing loan repayment on MFIs, various researchers have done research on it. The client characteristics are measured by age, education levels, number of dependents and skills. Business characteristics relate to the nature and type of the business plus its performance in relation to the others in the environment. They include the size and age of the business, location, income and profits generated from the business. For instance at higher levels of income, businesses make some savings and purchase assets
which can be used as loan securities. Such securities can be sold to repay loans. Lenders characteristics are factors attributed to the lender which means loans officers, company attributes, MFIs policies and objectives as well as performance of work. The MFIs should be in a position to provide guidance to the stakeholders relating to loan processes and procedures for better repayment and overall portfolio performance. Effective lending procedures have far reaching consequences on the loan repayment. Without effective mechanisms in place loan defaults are inevitable and loan recovery might be a great challenge for microfinance institutions.

## CHAPTER III

## RESEARCH METHODS

The purpose of this research is to identify the factors influence loan repayments of Microfinance Institutions at Parbat District Nepal. This section presents the procedures that will be used to collect data and therefore perform an analysis and then present the data in a way that meet the research objectives and answer the research questions.

### 3.1 Research Design

The main aim of this study is to determine the factors influencing loan repayment in MFI of Nepal during COVID-19 pandemic. The study is both quantitative and qualitative in nature. The study follows descriptive research design to identify the relationship between independent variables: client characteristics (age, number of dependents, educational level and skills), business characteristics (types of business, age of business and profit generated by their business), lenders' behavior (company policy, company attributes, company objectives and work performance) and dependent variable: Repayment of loan. A deductive approach of scientific research is used to carry out this study. According to Bryman and Bell (2015) deductive theory is common view of the relationship between theory and research and the researcher, on the basis of what is known about a domain and the theoretical considerations within it, deduces a hypothesis or hypotheses that must be subjected to empirical scrutiny. In this study researcher formulates a set of hypotheses at the start of the research after that relevant research methods are chosen and applied it to test the hypotheses.

### 3.2 Selection of location

The researchers selected the Parbat District for this research because it is distributing high loans and have also in the challenges of loan default. Similarly, it is nearer location to the researcher and due to lockdown and Covid-19 the selection location will be suitable for data collection and communication. Entire Parbat district is divided into 2 Municipalities and 5 Rural Municipalities (Gaunpalica).

### 3.3 Population and Sample

The target population of this study was confined to the microfinance clients who had benefited from loan. The targeted population consists of the 170 borrowers' respondent
from 2 Municipalities and 5 Rural Municipalities of Parbat district. These populations were classified into the sectors in which they are involved and the total numbers of each sector: manufacturing 28 , agriculture 34 , service 51 , and trade 57 respondents were randomly selected for this study. The study made use of simple random sampling because it is considered the simplest, most convenient and bias free selection method. It enables every member of the population to have an equal and independent chance of being selected as respondents.

### 3.4 Instrumentation

To collect sufficient and relevant information the study used both primary and secondary source of data. Primary data were collected through questionnaire .The questionnaire of this study include both closed and open-ended questions. Yes or No questions, multiple choice questions and Likert scale questions describe the independent variable and dependent variables. Although it has 27 question which is divided in to 4 sections according to variables $1^{\text {st }}$ section revels the clients characteristics which include question related to age, marital status, education level, income, number of dependent in their family and $2^{\text {nd }}$ section capture business characteristics which include the questionnaire related to their business types, age of the business and profit generated by the business. Third section shows the lenders behavior's which include company policies, company attributes ,company objectives, work performance of micro finance institution and least additional open-ended question has asked with respondent how they manage their fund during the pandemic situation for their payment.

### 3.5 Source and Method of data collection

Questionnaires were used to obtain primary data from respondents. The questionnaire had two sections whereby section A captured personal details of the respondents, while section $B$ answered questions that were relevant to the study. Some of the questions forming part of the questionnaire were open ended; to facilitate the individual opinion and others closed ended type to get specific information. Secondary data was collected from various reports in the micro finance institutions and also from various business premises.

### 3.6 Data Management and Analysis

After the collection of data, the raw data has been arranged and recorded properly on Microsoft Excel file. The loan default has been taken as the dependent variable and clients characteristics, business characteristics and lenders behavior's has been taken as the
independent variable. Further the data has been coded using SPPS software. Data has been presented on table and diagram. To meet the objective of the study, descriptive analysis, Pearson correlation analysis, and logistic regression analysis has been carried out to meet the objective and test the hypothesis formulated. Correlation analysis has been the major analysis tool that has been adopted to establish the relationship between the independent variables and dependent variables. The correlation analysis is used in measuring the relationship between the relationship between the dependent variables and the independent variables. To examine determinants of loan repayment of microfinance institutions borrowers, the binary logistic regression model was used to examine the relation of each factors such as client's characteristics, business characteristics and lenders behaviors with loan repayment in the study area. This model is selected due to the nature of dependent variable of loan repayment which is dichotomous taking on two values 0and 1 , which is 0 if there is defaulter and 1 if there is non-defaulters, the dependent variables is dummy variable with only two categories 0 and 1 respectively. Mathematically, logistic regression estimates a multiple linear regression function defined as:
$Z Z=\log [\mathrm{pi} / 1-\mathrm{pi}]=\beta 0+\beta_{1} x_{1}+\beta 2 x_{2} \ldots+\beta_{\mathrm{k}} \mathrm{x}_{\mathrm{k}}$

Linear Probability Model is defined as: $P i=\beta 0+\beta 1 x \mathrm{i}$

Where $P i=$ probability of occurrence of event

If X has no upper or lower bound, then for any value of $\beta$ there are values of X for which either $\mathrm{pi}>1$ or $\mathrm{pi}<0$. This is contradictory, as the true values of probabilities should lie within the $(0,1)$ interval.

Odds $=P i / 1-P i$
Where, $P i=$ Probability of event
$1-P i=$ Probability of non-event
As probability of event ranges from 0 to 1 , odds ranges from 0 to $\infty$. Transforming probabilities to odds removes the upper bound (Swamy, 2019).

In this study, the regression model used in had one variable being considered an explanatory variable and the other variable being considered as dependent variable. The regression model was as follows: Borrowers characteristic ( $\mathrm{x}_{1}$ ), Business characteristic
$\left(\mathrm{x}_{2}\right)$, lenders characteristic ( $\mathrm{x}_{3}$ ) as independent variable and loan repayment Y (Dependent variable)

Where:
Yi =credit repayment performance of loan (1 if the loan was fully repaid within the specified period of the loan contract, otherwise 0 )
$\alpha=$ Constant (intercept)
£i $=$ disturbance error
$\beta 1, \beta 2$ and $\beta 3=$ slope coefficients of independent variables.
$\mathrm{X}_{1=}$ Borrowers characteristics
$\mathrm{X}_{2}=$ Business characteristics
$\mathrm{X}_{3}=$ lenders behaviors'

### 3.7 Reliability and Validity of Data

Validity of the instrument reveals the extent to which it gives the same results after administering it on repeated times. The opinion of research experts (supervisor and lecturers) was incorporated to enhance validity of the instrument. The questionnaires were tested for reliability by choosing a small group of respondents, gave them same questionnaire twice within a period of one week. The two sets of questionnaires were then compared using the Pearson"s correlation co-efficient to determine their reliability. The results from the two sets tended to yield consistent findings. The cronbach alpha of repayment of loan is .757 and lenders behaviors is.812.The cronbach alpha of all variables is greater than 0.70 .

### 3.8 Ethical Consideration

Ethical considerations in research are critical. Ethics are the norms or standards for conduct that distinguish between right and wrong. They help to determine the difference between acceptable and unacceptable behaviors. The ethical considerations made in this specific research by the current study were subject to certain ethical issues. All participants reported their acceptance regarding their involvement in the research. Besides, reassurance was made to the participants that their participation in the research is voluntary and that they were free to withdraw from it at any point and for any reason. The denial of the respondents to participate in the survey was also respected. The respondents were fully made aware regarding the objectives of the research project, while they were reassured that their answers will be treated as confidential and used only for academic purposes and only for the purposes of the particular research. Except from the above, participants were not
harmed or abused, both physically and psychologically, during the conduction of the research. In contrast, the researcher attempted to create and maintain a comfortable and cooperative environment.

Table3. 1

Analysis plan

| Objectives | Indicator | Measurement scale | Method of data analysis |
| :---: | :---: | :---: | :---: |
| To examine the effect of clients' personal characteristics on loan repayment tendency Microfinance Institutions. | -Age <br> -level of education <br> -Number <br> of dependent <br> -Skills | Ordinal <br> Nominal | -Correlation Analysis <br> -Regression Analysis |
| To analyze business characteristics of MFIs clients and their influence on influence repayment microfinance Institutions. | -Types of business <br> -Age of the business <br> -Business location <br> -Profit generated | Ordinal <br> Nominal | -Correlation Analysis <br> -Regression Analysis |
| To evaluate the relationship between lenders' characteristics and loan repayment in microfinance institutions of Nepal. | -Company Policy <br> -Company attributes <br> -Company objectives <br> -Work performance | Ordinal <br> Nominal | -Correlation Analysis <br> -Regression Analysis |

## CHAPTER IV

## RESULTS AND DISCUSSION

This chapter focuses on analysis, presentation and interpretation of data collected by the study. The findings of the study are presented by an array of presentation tools that include frequency table and charts. The chapter is broken down into subsection where general characteristics such as gender, marital status, age, highest level of education attained and skills among others are discussed. Others factors that are related to loan default in microfinance institutions are well discussed with strong basis on data collection while implementing standard analytical modalities.

### 4.1 Client Characteristics

The factor client characteristics include gender, age, marital status, number of dependents, level of education and skills learn before starting their business.

### 4.1.1 Demographic profile of Respondents

The demographic profile of respondent is shown in the following table
Table 4.1

Demographic profile of Respondents

|  | Demographic <br> variable | Frequency | Percentage |
| :--- | :--- | :--- | :--- |
| Gender | Male | 0 | 0 |
|  | Female | 170 | 100.0 |
| Age | Total | 170 | 100.0 |
|  | Below25 | 39 | 22.9 |
|  | $25-30$ | 59 | 34.7 |
|  | $31-40$ | 55 | 32.4 |
|  | Above 50 | 17 | 10 |
|  | Total | 170 | 100.00 |
| Education | SLC or Below | 16 | 9.4 |
|  | $+2 / I n t e r m e d i a t e ~$ | 26 | 15.3 |
|  | Bachelor | 60 | 35.3 |


|  | Master/Above | 68 | 40 |
| :--- | :--- | :--- | :--- |
|  | Total | 170 | 100.0 |
| Marital | Married | 137 | 80.59 |
|  | Unmarried | 27 | 15.89 |
|  | Divorce | 6 | 3.52 |
| Family size | Total | 170 | 100.0 |
|  | 3 to 2 | 60 | 35.3 |
|  | 6 to 10 | 77 | 45.3 |
|  | Total | 33 | 19.4 |

Table 4.1 Summarizes the demographic variable used in the study with reference to gender, age group, marital status, level of education, family size and discussed from the above table as follows. According to the rule and regulation of Nepal Rastra Bank, the microfinance institution offer financial services to female only and MFIs focus on female. So, the total number of respondent is 170 and all are female.

Out of total respondent 170, 22.9 \% of respondent belong to below 25 years of age group, 34.7 \% of total respondent (i.e. 59 out of 170) belong to age group of 25-30 years. $32.4 \%$ of total respondent (i.e. 55 out of 170) belong to age group of $31-40$ years, $10 \%$ out of 170 belong to age group above 50 years. Most of the microfinance institutions loan borrowers belong to age group between 25-30.

Table 4.1, the study show that out of 170 respondent $9.4 \%$ have education level SLC or below, $15.3 \%$ have completed their $+2 /$ intermediate, $35.3 \%$ have bachelor level education and rest $37.6 \%$ have master or above level of education in the table majority have master level of education. This implies that education paly great role in raising the level of awareness, access to business information and to manage resources properly which boost production and so does the proper utilization of loan and which influence them for timely repay their loan installment.

Out of 170 respondents who participated in the study, the percentage of married respondent $80.59 \%$, and the percentage of sinle $15.89 \%$ and rest $3.52 \%$ are divorced respondent. So, it indicated that most of the loan borrower of microfinance institution are married. It is
assumed that married household is settled and responsible for social value which influence them for timely repay their loan installment.

Family size refers to the number of respondent support financially. Out of 170 respondent 35.3 \% have 1 to 2 family member, $45.3 \%$ have 3 to 5 member in family rest of the $19.4 \%$ have 6 to 10 member in family. The number of dependents may have an effect on the family income because with the increase in number the expenditure also increase which could ultimately affect the loan repayment on microfinance institution. With the analysis of table it show most of the dependent have 1 to 2 family whom they have to support.

### 4.1.2 Skills

Skills indicate the training before staring their business. Training has an indispensable contribution to the borrower's business success. Training enables the borrowers to expand and effectively run the existing business or enhance their capacity of engaging in the new business. Training contributes to good credit performance and lack of training on the business plan may result in poor repayment performance.

Table 4.2

Skills learn before starting business

| Skills learn | Frequency | Percentage |
| :--- | :--- | :--- |
| Yes | 81 | $48.4 \%$ |
| No | 89 | $52.00 \%$ |
| Total | 170 | 100.0 |

In the above table the study show ,out of 170 respondent $52 \%$ of the respondent start their business without taking any training related to the business similialy, $48.4 \%$ start their business after taking training ,knowledge as per the requirement of business.

### 4.2 Business Characteristics

This section addresses the business characteristics of individual respondent. It features the types of business run by the respondent; types of business, age of the business, location of the business, profit earned by the business also whether the profit earned by business is sufficient to repay their monthly installment.

### 4.2.1 Types of business

The study established the effect of the types of business on loan repayment. The response rate of the respondent is shown in following table.

Table 4.3

Types of business

| Types of business | Frequency | Percentage |
| :--- | :--- | :--- |
| Agriculture | 34 | $20.00 \%$ |
| Manufacturing | 28 | $16.5 \%$ |
| Service | 51 | $30.00 \%$ |
| Trade | 57 | $33.5 \%$ |
| Total | 170 | 100.0 |

In the above table, the study established that majority ( $33.5 \%$ ) of the respondent operated service business, $30 \%$ of the respondent are engaged in service business while $20.00 \%$ are operated agriculture business and remaining $16.5 \%$ are operated manufacturing business. Most of the respondents are engaged on trade related business. After trade business loan borrower are engaged on service business, agriculture business and manufacturing business respectively.

### 4.2.2 Age of the Business

Age indicate the period of time they had operated their business .In this study, respondent were required to indicate the period of time. The response rate of the respondent is shown in the following table.

Table 4.4

Age of the Business

| Age of the | Frequency | Percentage |
| :--- | :--- | :--- |
| Business |  |  |
| 1 year | 40 | $23.5 \%$ |
| 3years | 69 | $40.6 \%$ |
| 5years | 38 | $16.5 \%$ |
| More than 5years | 170 | $19.4 \%$ |
| Total | 100.0 |  |

Table 4.4 denote the response of the respondents that participated in the study, $23.5 \%$ has been operated for about 1 year , $40.6 \%$ has operated 3 years, $16.5 \%$ has been in business for 5 years and $19.4 \%$ has been in existed for over 5 years. Most, of the respondent has been operated the business more than 3 years.

### 4.2.3 Business profit

Business profit is the main factor that influence on timely repayment of loan and monthly installment. The response rate of respondents on income of their business is shown in the following table.

Table 4. 5
Business profit

| Business profit | Frequency | Percentage |
| :--- | :--- | :--- |
| Less than <br> 100000 | 36 | $21.2 \%$ |
| Between 100001 <br> to 200000 <br> Between 200001 <br> to 300000 <br> Above 500000 | 37 | $21.8 \%$ |
| Total | 53 | $31.2 \%$ |

According to above table, $31.2 \%$ of the respondents have business profit between 2,00,001 to $3,00,000,25.9 \%$ of the respondents have business profit above $5,00,000,21.8 \%$ of the
respondents have profit between $1,00,001$ to $2,00,000$ and $21.2 \%$ of the respondent have business profit less than $1,00,000$. From the above table majority of the respondent have business profit $2,00,001$ to $3,00,000$.

### 4.2.4 How amount received was invested

The response rate of response whether the loan borrowers invest the whole amount of loan in their business or they use for other purpose.

Table 4.6

Whether total loan amount invest in business

| Response | Frequency | Percentage |
| :--- | :--- | :--- |
| Yes | 116 | $68.2 \%$ |
| No | 54 | $31.8 \%$ |
| Total | 170 | 100.0 |

According to above table $68.2 \%$ of the total respondents invested their total loan amount in business while remaining $31.8 \%$ take loan and used for different purpose than specified in the loan document.

### 4.2.5 Whether Business able to repay loan amount

The response rate of respondent whether business is able to generate the whole repayment amount for each repayment period is shown in the following table.

Table 4.7

Whether business able to generate whole repayment amount for each repayment period

| Skills learn | Frequency | Percentage |
| :--- | :--- | :--- |
| Yes | 107 | $62.9 \%$ |
| No | 63 | $37.1 \%$ |
| Total | 170 | 100.0 |

In the above table $62.9 \%$ of the respondent business able to generate whole repayment amount for each period while $37.1 \%$ manage from other source to repay their amount or arrear for payment.

### 4.2.6 Location of the business

Location indicates the place where the business is. Location affects the performance of the business which directly affects the repayment schedule.

Table4. 8
location of the business

| Response | Frequency | Percentage |
| :--- | :--- | :--- |
| Municipality | 120 | $70.6 \%$ |
| Outside |  |  |
| Municipality | 50 | $29.4 \%$ |
|  | 170 | 100.0 |

Majority ( $70.6 \%$ ) of the respondents had their business located within the municipality while $29.4 \%$ had their business located outside the municipality.

### 4.2.7 Financing the unpaid business loan

Some businesses were unable to repay the full amount of the loan in time. These business had to source for finance to offset these debts. Table 4.9 illustrate that for majority ( $32.9 \%$ ) the money was recovered from other group member. $27.1 \%$ of the respondents sourced for the money to repay the loan from other investment.20.6\% sourced for the same from friends $19.4 \%$ represent the cluster of respondents who remained with arrears.

Table4. 9

Financing the unpaid business loan

| Repayment <br> Financing | Frequency | Percentage |
| :--- | :--- | :--- |
| From other | 46 | $27.1 \%$ |
| investment |  |  |
| Group member | 56 | $32.9 \%$ |
| Friends | 35 | $20.6 \%$ |
| Remain Arrear | 33 | $19.4 \%$ |
| Total | 170 | 100.0 |

### 4.3 Lender Behaviors

Lender behavior includes company policies, company, attributes company objectives, work performance. These are discussed below on the basis of response rate of respondents.

### 4.3.1Descriptive analysis of lenders behaviors and loan repayment.

The descriptive analysis includes total number of respondents, minimum value, maximum value, means and standard deviation of the variable.

Table4. 10

Descriptive analyses of lenders behavior

| Items N |  | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| There are written credit policies that provides guidance regarding loan utilization /Repayment | 170 | 1.0 | 5.0 | 4.018 | 1.1119 |
| The value of collateral used for borrowing is reasonable with the loan size | 170 | 1.0 | 5.0 | 3.724 | . 9971 |
| There is proper monitoring and follow-up by the authority | 170 | 1.0 | 5.0 | 3.724 | 1.0320 |
| I am satisfied with the procedure that MFIs followed to approved loan | 170 | 1.0 | 5.0 | 4.485 | . 6450 |
| MFIs arranged workshops, technical instruments and financial knowledge , after they granted me a loan | 170 | 1.0 | 5.0 | 3.900 | 1.0860 |
| MFIs staff communicate the terms ,condition and payment schedule clearly | 170 | 1.0 | 5.0 | 4.218 | . 8667 |

The result in Table 4.10 shows that the mean value of the statement there is written credit policies that provide guidance regarding loan utilization / repayment is 4.018 which indicates that respondents are highly satisfy with this statement and the standard deviation represent the variation in respondent answer which is 1.1119.The result of the statement the value of collateral used for borrowing is reasonable with the loan size shows the mean
value 3.724 which indicate that respondents are agree with the statement and the standard deviation represent the variation in respondent answer is .9971 .The result of the third statement there is proper monitoring and follow up by the authority shows that the mean value is 3.724 and the standard deviation is 1.0320 .The statement I am satisfied with the procedure that MFIs followed to approve loan shows that the mean value of the statement is 4.485 which indicate that respondents are highly agree with the statement and the SD is .6450.The second last result shows that the mean value of statement MFIs arranged workshops, technical instrument and financial knowledge after they granted me a loan is 3.900 which indicate that respondents are agree with the statement and the SD is 1.0860.The last statement of the result shows that the mean value of the statement MFIs staff communicate the term and condition and repayment schedule clearly is 4.218 which indicate that respondents are highly satisfy with this statement and SD represent the variation respondent answer which is $86.67 \%$.

### 4.3.2 Repayment of loan

The response of the respondents on the statement of repayment of loan of microfinance institutions are shown in the following table.

Table4. 11

Descriptive analyses of loan repayment

| Items | N | Minimum | Maximum | Mean | Std. Deviation |
| :--- | :---: | :---: | :---: | :---: | :---: |
| The process/mode of <br> paying the loan is <br> appropriate for me to pay <br> loan on time | 170 | 1.0 | 5.0 | 4.282 | .9498 |
| My business generate <br> enough cash flows to | 170 | 1.0 | 5.0 | 4.371 | .9025 |
| repay monthly installment |  |  |  |  |  |
| The collateral required for <br> obtaining loan is <br> appropriate | 170 | 2.0 | 5.0 | 4.294 | .7968 |
| I am comfortable to pay <br> my loan monthly | 170 | 2.0 | 5.0 | 4.429 | .7119 |
| The overall lender |  |  |  |  |  |
| behavior influence me to <br> repay timely monthly <br> installment | 170 | 2.0 | 5.0 | 4.388 | .7149 |

The result of table 4.11 shows that the means value of the statement the process/mode of paying the loan is appropriate for me to pay loan on time is 4.282 which indicate that respondents are highly agree that the process/ mode of loan payment on time and the SD is $94.98 \%$. The mean of the statement ,my business generate enough cash flows to repay monthly installment is 4.31 which indicate that the cash flow is sufficient to repay monthly installment on time and the SD represent the variation in respondent answer which is 90.25 \%.The mean of statement ,the collateral required for obtaining loan is appropriate to repay timely monthly installment is 4.429 which indicate that respondents are highly agree that the collateral required for loan influence them to repay the monthly installment and SD represent the variation in respondents answer which is $79.68 \%$. The mean of the statement ,I am comfortable to pay my loan monthly is 4.429 which indicate that the respondents is
highly agree with the comfortable to pay loan on time and the SD represent the variation is answer which is $71.19 \%$.The mean of statement ,the overall lenders behavior's influence me to repay timely monthly installment is 4.388 which indicate that respondents are highly agree that the lenders behavior's of microfinance institution influence them to repay their monthly installment on time and SD represent the variation in respondent answer which is $71.49 \%$.Hence ,the respondents are highly agree about mode of payment, business cash flow, collateral and lender behavior's them to repay monthly installment of loan on time.

### 4.3.3 Correlation analysis

The correlation between dependent variable i.e. repayment of loan and independent variable lender behavior include Company credit policies, collateral, procedure for loan approval, training and communication is shown in the following table.

Table4. 12

Correlation Matrix

**. Correlation is significant at the 0.01 level (2-tailed).

From Table 4.12, it can be concluded that repayment of loan is significantly correlated to credit policies of microfinance institution as the significant level in $(<0.01)$.The Pearson correlation coefficient of the variable is 0.312 which indicate that there is positive relation between credit policies and loan repayment. Repayment of loan is significantly correlated with the collateral used for borrowing with loan size of microfinance institution as the
significant level is (<0.01).The Pearson correlation coefficient of the variable are 0.293 which indicate that there is positive relation between collateral and loan repayment. Similarly, correlated to procedure followed to approve a loan of microfinance institution as the significant level ( $<0.01$ ).The Pearson correlation coefficient of the variable is 0.296 which indicate that there is positive relation between procedure and loan repayment. Credit policy of the microfinance institution is significantly correlated to collateral used as the significant level is (<0.01) and the Pearson correlation of the two variable is 0.405 which indicate there is positive relationship between credit policies of the microfinance institution and collateral used. Collateral used for borrowing is significant correlated to procedure that MFIs followed to approve loan of borrowers' as the significant level is ( $<0.01$ ) and the Pearson correlation of the two variable is 0.334 which indicate there is positive relationship between collateral used and the procedure that MFIs followed to approve loan of borrowers. Credit policy of the microfinance institution is significantly correlated to procedure that MFIs followed to approve loan of borrowers as the significant level is ( $<0.01$ ) and the Pearson correlation of the two variable is 0.329 which indicate there is positive relationship between credit policy of the microfinance institution and procedure that microfinance institution followed to approve loan borrowers.

### 4.3.4 Logistic Regression Analysis

Loan repayment is a dependent variable, while different demographic, business characteristic, borrowers' characteristic, lenders behaviors' are considered as independent variables. In this study, the dependent variable assumes values 0 and 1 , which is 0 if the borrower is a defaulter and 1 if the borrower is non-defaulter. Therefore, loan repayment is treated as dichotomous dependent variable and a non-continuous dependent variable that does not satisfy the key assumptions in the linear regression analysis. The binary logistic model is used to estimate the probability of a binary response based on one or more predictor (or independent) variables (features). It allows one to say that the presence of a risk factor increases the probability of a given outcome by a specific percentage. Since the dependent variable of the study (loan payment) have binary/dichotomous outcomes (defaulter and non-defaulter), the binomial logistic regression model was selected for this study to find the determinant factors affecting loan repayment. The binomial logistic model is one of the sophisticated binary response model that overcomes the limitations of the Linear probability model.

Logistic regression was used to investigate the factors influencing loan repayment problem among borrowers in microfinance institution in Parbat district.

### 4.3.5 Omnibus Tests of Model Coefficient

The Omnibus tests of model coefficient give us an overall indication of how well the model performs, over the one with none of the predicators entered in to the model. This is referred to as 'goodness of fit' test. For this set of result, we want a higher significant value (the sig. value should be less than .05)

Table4. 13

Omnibus tests of model coefficient

|  | Chi-square | DF | Sig. |
| :--- | :--- | :--- | :--- |
| Step | 48.304 | 7 | .000 |
| Block | 48.304 | 7 | .000 |
| Model | 48.304 | 7 | .000 |

Table 4.13 shows that the overall model is statistically significant, $\mathrm{X}^{2}(7)=48.304, \mathrm{P}<, 0.5$.

### 4.3.6 Predictive Capacity of the logistic Regression Model

Table4. 14

Predictive capacity of the logistic regression model


Cox \& Snell R Square 247
Nagelkerke R Square . 370

The result in Table 4.14 shows the predicted capacity of the logistic regression model. In the above table, 41 respondents out of 170 respondent pay delay monthly installment and 129 respondents pay their monthly installment on time. So, the overall predictive capacity of the model is $82.4 \%$ i.e. this model will support the statement that claims that there is regular repayment of the loan by the borrower82.4\% of the time on COVID-19 pandemic .The value of Nagelkerke $R^{2}$ is obtained as .370 which means that $37 \%$ of the variation in the dependent variable is described by the independent variable

### 4.3.7 Logistic Regression Analysis for Loan Repayment

Table4. 15

Logistic regression analysis for loan repayment

|  | B | S.E. | Wald | DF | Sig. | Exp(B) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Age | .003 | .256 | .000 | 1 | .992 | 1.003 |
| Family dependent | .207 | .303 | .464 | 1 | .496 | .813 |
| Skills | .881 | .445 | 3.914 | 1 | .048 | .414 |
| Profit of business | .065 | .198 | .106 | 1 | .745 | .938 |
| Lenders behaviors' | 2.644 | .538 | 24.164 | 1 | .000 | 14.073 |
| Education | .850 | .258 | 10.850 | 1 | .001 | 2.339 |
| Business types | .378 | .207 | 3.312 | 1 | .069 | .686 |
| Constant | -8.682 | 2.528 | 11.797 | 1 | .001 | .000 |

In the above table 4.15, the B value shows the correlation between the given independent variable with the loan repayment. The result from the logistic regression has shown that there is significant relationship between skills of loan borrower and the repayment of the loan on time. The P- value of lender behaviors is less than 0.05 (i.e .000 )So, there is significant relationship between lenders behavior and timely repayment of monthly installment and B- value is 2.644 , it means there is positive relationship between lenders behavior and loan repayment. Similarly, the result from logistic regression $P$ value of education of the borrower is less than 0.05 (i.e .001) so there is significant relationship between education level of borrower and timely repayment of monthly installment and Bvalue is 850 ,it means there is positive relationship between education level and loan repayment. There is no significant impact of age of the borrower, family dependent, profit of the business, and business type on the loan repayment on timely.

The expected B-value gives the odds ratio that gives the relative measure of effect of the independent variables with the repayment of loan, if the variable is greater than 1 ,then the odd of an outcome occurring increases and if the value is less than 1 , any increase in the predictor variable leads to a drop in the odd of the outcome occurring (Mbachu, Nduka, and $\mathrm{Nja}, 2012$ ) from the table, the odd ratio of number of dependents age 1.003 ,it means when the predictor is raised by one unit, will increase level of sustainability by 1.003 times
and dependent number in family odd ratio is .813 times likes to default on loan repayment because of negative correlation between number of dependent family member and loan repayment. Similarly, profit of the business and business type .938 and .686 respectively it means the borrowers are likely to default on loan repayment because of negative correlation with loan repayment and profit of the business and types of business.

### 4.3.8 Hypothesis test from logistic Regression Analysis

Table4. 16

Hypothesis test from logistic regression analysis

| Hypothesis P | P-value | Result |
| :---: | :---: | :---: |
| $\mathrm{H}_{1 \mathrm{a}}$ : There is significant relationship between age and | 0.992 | Rejected |
| Loan repayment |  |  |
| $\mathrm{H}_{1 \mathrm{~b}}$ : There is significant relationship between education and | 0.001 | Accepted |
| Loan repayment |  |  |
| $\mathrm{H}_{1 \mathrm{c}}$ : There is significant relationship between skills and | 0.048 | Accepted |
| Loan repayment |  |  |
| $\mathrm{H}_{2 \mathrm{~d}}$ : There is significant relationship between dependent family and loan repayment | $\text { aily } 0.496$ | Rejected |
| $\mathrm{H}_{2 \mathrm{e}}$ : There is significant relationship between business type and repayment | 0.069 | Rejected |
| $\mathrm{H}_{2 \mathrm{f}}$ : There is significant relationship between business profits and repayment | 0.745 | Rejected |
| $\mathrm{H}_{3 \mathrm{~g}}$ : There is significant relationship between lender behaviors and repayment | $\text { rs . } 000$ | Accepted |

### 4.4 Qualative Analysis of loan Repayment in context of Pandemic

The finding from the quantitative analysis is different from previous researcher; the respondents who pay only interest are categories on delay repayment and the borrower who pay whole installments on time are categories on timely repayments. To support the finding from the quantitative analysis and to further analysis the cause of delay repayment, an open ended and unstructured question was asked with the microfinance loan borrower of Parbat district due to the pandemic situation both the borrower and the lender are facing
the problem in loan repayment. There are various that are affected by COVID-19 pandemic, whose impact is clearly seen in repayment of loan.

## Client Characteristics

There are various clients' characteristics like age, education, number of dependent family and skill of the borrowers which has impact on loan repayment on timely. From the above result, Borrower with more years of formal education records higher loan repayment because educated family member are more likely understanding and support the family member towards the timely repayment of loan and educated borrower may acquire better knowledge in choosing a profitable business, could have better market information and exposure to technology. But if the family members are not properly educated, then they neither coordinate with the borrower nor they coordinate with loan officer that can lead to delay repayment of loan. Borrower with the skill related to the business has timely loan repayment because they can work in an effectively way by which they can manage their business effectively which leads timely payment of loan. Due to the pandemic situation of COVID-19 loan borrower is facing financial and non-financial problem. People with high age suffer from different psychological/mental problem due to lockdown situation to fulfill their daily basic needs. The borrower with many dependents have lower repayment rates due to many responsibility resulting from meeting their regular demand in the pandemic situation and due to lockdown the source of income has decreased day by day.

## Business Characteristics

The main indicator of the success of business is profit if the business is able to generate high profit then the business able to pay their loan on time. There are different types of business and the profit is depends upon their nature/type of business some business generate profit in short period and some business needed to loan period to make profit. But in the pandemic situation most of the business fail to earn profit which create higher rate of delay loan repayment. Nepal government has announced the lockdown for two week national wide but it further extended more than 5 months this pandemic lockdown has affect all type of business and create poor cash flow in the market. According to the response of respondent COVID-19 has more affected on service sector business such as vehicle, beauty parlors, hotels, tourism etc. Manufacturing industries mostly rely on raw material from china and India this knock on effect for Nepal are significantly as the supply of raw materials from china will be reduced drastically. Agriculture business also face problem farmer are unable to sell their produce or forced to sell at a very low price as the
supply chain is disrupted due to lockdown. Many small enterprises are not able to operate their business with uncertainty on when they can open which ultimately affect loan repayment. Some businesses are closedown for lifetime due to lockdown. Few online delivery channels operating with permit of government for certain time of a day, only to deliver essential foods, most of other online services have been halted because of outbreak. The trade business such as readymade clothes and shoes shops are also affected due to lockdown and grocery shop are allowed to open morning and evening shift during lockdown period by which they able to repay their loan on time compare to other business.

## Lenders Behavior's

Due to the end of fiscal year government announced to pay tax to all financial institution on time by which all microfinance have been pressuring borrowers to clear loan installment interest pertaining the last four month which create many difficulty situation for loan borrower to pay and borrower manage the amount from their relative and other source.

## How Loan Borrowers Manage to Repay Monthly Installment during COVID-19 Pandemic?

The COVID-19 crisis caused numerous challenges for MFIs and their clients. The impact dependents not only on the location of MFIs in relation to the Covid-19prevalence, but also on the types of services that MFIs provide and their internal operation system. The pandemic has posed unprecedented challenges to both health and economic sector all over the world. Government in many countries has announced lockdown and others measures to contain spread of the coronavirus while these measures have helped in controlling infection, the economic activities have been severely affected. In Nepal, as in many other developing countries, Microfinance Institution (MFIs) are at the forefront of providing financial services to the low-income population.

During COVID-19 pandemic borrower manage funds to repay their interest and some of them pay full monthly installment. According to respondents, Microfinance institutions have been pressuring borrowers to clear loan installment and interest pertaining the last four month. Most of the respondents manage funds from own business with permit of government certain time of a day they are allowed to do business so, they collect some revenue from the business and able to pay the amount and some borrowers manage from family member support. Some of the respondent manage from other source to repay the amount such as house rent ,family member extra income, husband's pension funds,
additional loan from friends, relatives and group member, family business ,remittance from abroad, saving made earlier, to repay interest because it is compulsory to repay at the end of fiscal year. Borrower who are engaged in agriculture business they fell more comfortable to repay because they are able to sell their product from their field to the vender and it is regular use in local market also they are forced to sell their product in low price but able to earn some income by which they repay the amount.

The Covid-19 pandemic has posed unprecedented challenges to both the health and economic sector all over the world because of Covid -19, like whole economy MFIs have also been affected in many ways. The high vulnerability of microfinance sector to the current pandemic disruption arises mainly from its nature of operations that are focused on the poor and marginal sector of the society, the group-based modality of functioning and group guarantee as collateral for lending services. COVID-19 affects number of sector like tourism, trade, production, supply, transportation business etc. Many Nepalese migrant workers, within and outside the country have lost their jobs this will affect the repayment of loan to MFIs as remittance is a major source of funds for many low-income households. Jobs loss in the informal sector this will also affect the repayment of loan to MFIs if the source of income of MFIs clients or her family comes under the informal sectors, which is more likely than not, loan repayment/saving collection of MFIs will be affected. A major reason for having difficulty in repayment can be attributes to the reduced capacity for repayment by borrowers as a result of the economic activity almost suspended during this pandemic.

### 4.5 Major Findings

From the above quantitative and qualitative analysis ,the researcher has come up with the different finding which further aided for drawing conclusion of the research. This section point out the main finding of the current research which are listed below.
i. Out of the total respondents $22.9 \%$ of respondents belong to below 25 years of age group, $34.7 \%$ of total respondents belong to $25-30$ years of age group, $32.4 \%$ of the total

Respondents belong to $31-40$ years of age group and $10 \%$ of total respondent belong to above 50 years of age group.
ii. Out of the total respondent $35.3 \%$ of respondents have 1 to 2 dependent member and $45.3 \%$ of respondent have 3 to 5 dependent member and $19.4 \%$ of total respondent have 6 to 10 member in family.
iii. The study established that majority of the respondent $40 \%$ have education master /above, $35.3 \%$ out of total respondent have bachelor level education, $15.3 \%$ have complete +2 /Intermediate and remaining $9.4 \%$ out of total respondent have SLC or below level of education.
iv. Out of the total respondent $80.59 \%$ of the respondent represent married status, $15.89 \%$ of total respondent are unmarried and remaining $3.52 \%$ are divorced.
v. From the above table $48.4 \%$ of total respondents have taken training and learn skill that necessary for the effectively run the business and $52.6 \%$ of respondents haven't taken any business related training.
vi. Most of the respondent are engaged in the trade which represent $33.5 \%$ out of total respondent ,30\% represent out of total respondent are engaged in Service related business, $16.5 \%$ out of total respondent are engaged in Manufacturing business and remaining $20 \%$ are engaged in agriculture business. Trade related business have high respondent than other business.
vii. Out of $23.5 \%$ of respondent have their business running duration less than 1 years, $40.6 \%$ represent out of total represent have their business duration 3 years , $16.5 \%$ respondent have their business running duration 5 years and remaining $19.4 \%$ have their business running duration more than 5 Years.
viii. From the above study $21.2 \%$ of the total respondent business profit is less than 1 lakh , $21.8 \%$ out of total respondent represent their business profit is $1,00,001$ to $2,00,000,31.2 \%$ of the respondent business profit is between $2,00,0001$ to $3,00,000$ and remaining respondent $25.9 \%$ business profit is above $5,00,000$.
ix. Majority ( $70.6 \%$ ) of the respondents had their business located within the municipality while $29.4 \%$ had their business located outside the municipality.
x . The mean value of the statement there is written credit policies that provide guidance regarding loan utilization / repayment is 4.018 which indicate that respondents are highly satisfy with this statement.
xi. The result of the statement the value of collateral used for borrowing is reasonable with the loan size shows the mean value 3.724 which indicate that respondents are agree with the statement.
xii. The mean value of 4.485 represent that the borrower is highly agree because the borrower is satisfied with the procedure that followed by MFIs to approve loan of clients.
xiii. There is proper monitoring and follow-up by the authority represent mean value 3.724 the borrowers are agreed with the statement because the MFIs regulate and monitoring the activity of the clients and regular follow-up for the timely loan repayment.
xiv. The mean value 3.90 represent that MFIs arranged regular workshops, provide technical instruments and provide financial knowledge to the clients as per necessary after they grant a loan.
xv . The mean value of the process/mode of paying the loan is appropriate for the respondent to pay loan on time is 4.282 which represent the borrower is high agree with the process/ mode of the MFIs.
xvi. The mean value 4.371 shows that the borrower is highly agreed because the business is able to generate enough cash flow to repayment the loan on time.
xvii. The collateral required for obtaining loan is appropriate to the clients ,the mean value is 4.294 with the mean value clients is highly agreed with the collateral required for the loan which motivate them to pay the loan on time.
xviii. The overall lender behavior influence to the clients to pay timely installment mean value is 4.388 which represent highly agreed with the lender behavior.
xix. The predictive capacity of the logistic regression model shows out of total 170 respondents 41 respondents pay delay monthly installment and 129 respondents pay their monthly installment on time. Due to the pandemic situation there is late payment of installment.
xx . The result from logistic regression shows that there is significant relationship of loan repayment with age of the business, education level of the borrowers and skill of the borrower to conduct the business and lenders behavior's and there is no significant relationship of repayment of loan with age of the borrowers, number of dependent family member, business types and business profit.
xxi. COVID-19 affects number of sector like tourism, trade, production, supply, transportation business etc. Most of the essential food processing industries have not been affected so far by the pandemic .However, production of almost all bakery confectionery; quick service restaurants, parlors, tourism business etc. have been shut down creating a great loss to private sector business.
xxii. A major reason for having difficulty in repayment can be attributed to the reduced capacity for repayment by borrowers as a result of the economic activities almost suspended during the pandemic situation.

## CHAPTER V

## DISCUSSION, CONCLUSION AND IMPLICATIONS

Results presented in chapter four are discussed conclusively and appropriate recommendations made. The conclusions and recommendations focus on addressing the objectives of the study which aims at determining factors that influence loan repayment among clients in the pandemic situation of Parbat District.

### 5.1 Discussion

Access to finance by entrepreneurs is paramount for their business to succeed .The existing microfinance institutions have tried to bridge the gap of credit accessibility to entrepreneur but despite this the entrepreneurs have been defaulting on their loans. There are various policies that an organization should put in place to ensure that credit administration is done effectively. One of these policies is a collection policy which is needed because all customers do not pay the firms bills in time some customers are slow payers of which some are non-payers. The collection effort should, therefore aim at accelerating collections from slow payers and reducing bad debt losses. A collection policy should ensure prompt and regular collection is needed for fast turnover of working capital keeping collection costs and bad debts within limits and maintaining collection efficiency. Regulating in collections keeps debts alert and they tend to pay their dues promptly. The collection policy should lay down clear-cut collection procedures. The collection procedures for past dues or delinquent accounts should also be established in unambiguous terms. The slow paying customers should be handled very tactfully. Though collection procedure should be firmly established, individual cases should be dealt with on their own merits. The main objective of this research was to examine the determinants of loan repayment default in microfinance institution in Parbat District. Specially, the studies sought establish how lenders behaviors, borrowers' characteristics and business characteristics determined loan repayment default in microfinance in Parbat.

The first research objective of this research is to find the relationship between the client's characteristics and loan repayment default in microfinance institution in Parbat district. The study of Angaine (2013); Eshetu (2019); and Mahammod (2019) revealed that there is significant relationship between clients' characteristics such as age of the borrower, education level of the borrower and number of dependent family member with repayment
of loan. Consistence with the previous study, the current study also found that there is significant relationship between clients' characteristics like education level of borrowers and skill of the borrowers with loan repayment. But there is no significant relationship between age of the borrowers, number of dependent in family does not influence microfinance institution borrower to repay their loan.

Training: The researcher hypothesized that there is significant association between training and loan repayment performance of borrowers in MFIs, and it is found to influence positively and significantly the borrower's loan repayment performance. If other variables hold constant, the delivering of well-organized and sufficient training properly for borrowers increases the probability of borrower's loan repayment by .414 . By other way, other variables kept constant, the odds ratio favoring loan repayment performance increases by a factor of .414 for borrowers who were trained. If lender provides various training, the clients will able to understand the rules and regulations easily. They can also develop skill on how to do business and money utilization. Training is needed not only for client but also for loan officers. The model results show that this variable has a positive (as the coefficient of training i.e., $\beta$ of .881 have positive sign) impact on the loan repayment. This result agrees with the findings of (Nawai \& Shariff, 2013;Assefa B.2002;Olagunju and Adeyema 2007;Statham2008;Admassie2005) But, it disagrees with the result of Welderufael et al.(2015) study, who reveals that there is statistically insignificant association between training and loan repayment performance.

Education: It was hypothesized that education is associated with loan repayment of MFIs. The result from binomial logistic regression model in the above in the table 4.15 indicate positive sign for education level variable ( $\beta$ of .850 ), which implies positive association between education level and loan repayment MFIs. This shows that as level of education increases, borrowers enhance their ability to access, evaluate, and understand new production techniques and technologies. Since the Sig. statistic or p-value in some other statistical application (.001) is smaller than the chosen significance level ( 0.05 or 5 percent), the positive association between education level and loan repayment is statistically significant i.e., the level of education contributes to the variance in probability of borrower's loan repayment performance. Hence, there is significant association between education level and loan repayment of MFIs. The result from binomial logistic model can be interpreted as, other variables being constant, increase in education level could lead loan repayment rate to be improved by 2.339 by other way, and increase in one year schooling
increases the odds ratio in favor of non-defaulting by a factor of 2.339 , ceteris paribus. This implies that education plays great role in raising the level of awareness, exposure to technologies, access to business information and to manage resources properly which boost production and then improves loan repayment. Education level of the borrowers is one of the variables that were thought to affect loan repayment performance of the borrowers by different authors. This result is consistent with the findings of (Abreham, 2002; Jemal Abafita, 2003;Samuel, 2011;Tnsue G.2011; Mugenda, 2003), but inconsistent with that of Retta (2011).

The next research objective is to identify the relationship between business characteristics and loan repayment default in microfinance institution. Based on the result obtained from SPSS analysis there is no any positive correlation relationship between business characteristics and to repay the loan is based on Eshetu (2019) finding. The third research objective of this study is to determine the relationship between lenders behavior's and loan repayment. Based on the result obtained from SPSS analysis, the P-value of this variable is 0.000 , which means there is positive relationship between lenders behavior's and loan repayment. Thus, the hypothesis $\left(\mathrm{H}_{3 \mathrm{~h}}\right)$ is accepted. The study conducted by Maina and Kalui (2014); has also stated that there is positive relationship between lenders behavior's and loan repayment. Repayment problem is one of the critical issues of MFIs that concerns all stakeholders (Sharma \& Zeller, 1997; Marr, 2002; Maata, 2004; Godquin, 2004) where the high loan default rate is the primary cause of the failure of MFIs (Yaron, 1994; Woolcock, 1999; Marr, 2002; Maata, 2004).

COVID-19 pandemic has affected all types of business and creates poor cash flow in the market. According to the response of the respondents, COVID-19 has affected more to the service business but with comparison to manufacturing business, service business and agricultural business, trade business are less harm, because they are allowed to open at morning and the evening as per government rules. The main cause of large number of delay repayment of monthly installment is decrease in profit due to decrease in revenue of the business. Due to the pandemic situation loan borrower are facing both financial and non-financial problem. Many businesses have been forced to close which consequently reduced their ability to earn revenue. Limited production base, excessive dependence on workers remittance to pay loan, pervasive informality in employment, insufficient social protection and weak healthcare system make it double challenges for borrower to repay their loan on time.

### 5.2 Conclusion

Loan repayment performance is affected by a number of factors expressed by client characteristics, business characteristics, and lender characteristics. While some of the factors positively influence the loan repayment, the other factors are negatively affecting the repayment rate. This study analysis focused on a number of specific factors which are categorized under client characteristics, lender characteristics and business characteristics. Regarding the client's characteristics, there are variables measured by age, Sex, another source of income gained by borrowers. Lenders characteristics are factors attributed to the lender which means loans officers, company attributes, MFIs policies, and objectives as well as the performance of work. The MFIs should be in a position to provide guidance to the stakeholders relating to loan processes and procedures for better repayment and overall portfolio performance. Effective lending procedures have far-reaching consequences on the loan repayment. The Business characteristics relate to the nature and type of the business plus its performance in relation to the others in the environment. They include the size and age of the business, location, income, and profits generated from the business. For instance, at higher levels of income, businesses make some savings and purchase assets which can be used as loan securities. Such securities can be sold to repay loans. For the sustainable development of microfinance institutions, they should have high percentage of recovery rates.

This study evaluated the factors influencing defaults in loan repayment in microfinance institution clients in the context of Covid-19 pandemic in Parbat district. The result obtained in this study revealed that education level of borrowers, skills of the borrowers and lenders behaviors were the major significant factors determining loan repayment in the study area. However, other factors which did not have significant influencing on loan repayments are age of the borrowers, number of dependent of family member, business types, and business profit. Borrowers with higher education level increase the capacity to use and repay the loan in time, or increase the probability to know each other in group lending schemes, which result in better screening, monitoring and enforcement within the group. If lender provides various training, the clients will able to understand the rules and regulations easily. They can also develop skill on how to do business and money utilization. Similarly, continuous follow-up and visit makes borrowers to observe their obligation and improve the proper utilization of the loan there by reduced their probability of being defaulters.

The microfinance institution are facing untold financial challenges due to the decline in economic activities ,low demand and supply of goods ,unemployment ,business closure and wider spread of poverty are among the effect of the pandemic which directly linked with the low profit of the business / low revenue and loan default in the microfinance institutions.

### 5.3 Implication of the study

This study is to determine the factor affecting loan repayment default in the COVID-19 pandemic in microfinance institution in Parbat district. This study would be beneficial to few parties such as the microfinance institutions, other lending institutions, banking institution as well as the future researchers.

Arising from this research, the microfinance institutions in Parbat district are able to identify how repayment schedule can affect repayment performance of the loan borrowers. By gaining this knowledge, they may re-strategize their repayment schedule in order to solve the increasing rate of loan repayment default. Besides microfinance institutions, other lending institutions and banks can also gain information about the determinants of loan repayment default among the loan borrowers from this research. As most of the borrowers have identical characteristics, these institutions can be aware of the factors affecting the repayment performance of loan borrowers.

Apart from that, this study provides a useful reference documents for the financial institution to determine the factors affecting loan repayment default among the borrowers. The findings of this study are crucial for the institutions so that they are able to implement relevant policies to ensure they maintain a performing portfolio and improve their future profit margin. Also, this study is done during COVID-19 so it would help to others researcher who is willing to do research on this pandemic by adding more factors that affect repayment of loan in other interested topic.

### 5.4 Recommendations

The following recommendations followed from the research:
$>$ The training and formation stage often covers several sessions. Group members must clearly understand their roles and responsibilities and fully understand that they are individually signing for the loans of each group member and focusing on areas such as
business management, book keeping and savings. Such measures will bring down the rate of defaulters.
> Loan terms should be designed in accordance to the sectors, age, and location of the business to ensure maximum benefit of loan.
> There should be adequate training for loan officers in the MFIs in order to improve their skill and methodology as well as to improve their commitment to regularly supervise the borrowers.

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## APPENDICES

## Appendix 1: Questionnaire

## FACTORS INFLUENCING LOAN REPAYMENT IN MFIS OF NEPAL DURING COVID-19 PANDEMIC: A CASE STUDY OF PARBAT

Dear Respondents,

I am doing this survey entitled "Factors influencing loan repayment in MFIs of Nepal during Covid-19 pandemic: a case study of Parbat" as a partial fulfillment for my Graduate Research Project (as required by MFC program) in Tribhuvan University. I appreciate your willingness to participate and value your feedback. I assure you that the information provided by you will be kept confidential and will be used for academic purpose only.

- Biraj Puri

1) Please indicate your gender?
a. Female
b. Male
2) What age group are you in?
a. Below 25 years
b. 25 to 30 years
c. 31 to 40 years
d. More than 50 years
3) Number of dependent on family?
a. 1 to 2
b. 3 to 5
c. 6 to 10
4) What is your higher education level?
a. SLC or Below
b. $+2 /$ Intermediate
c. Bachelor
d. Master or above
5) What is your marital status?
a. Married
b. Unmarried
c. Divorce
6) What is your source of income?
a. Own Business
b. Government Service
c. Remittance
d. Other
7) What is your Family Income Monthly ?
a. Rs 20,000
b. Rs 30,000
c. Rs 50,000
d. More than Rs50,000
8) Number of years in business experience before obtaining any loan?
a. Less than 1 year
b. 2 to 5 years
c. 5 to 10 years
d. More than 10 years
9) Did you take any training before starting the Business?
a. Yes
b. No

## Business Characteristics

10) How many years of experience do you have in operating business?
a. 1 year
b. 3 years
c. 5 Years
d. More than 5 years
11) What types of business are you operating?
a. Manufacturing
b. Trade
c. Agriculture
d. Services
12) Where is your business location?
a. Within Municipality
b. Outside Municipality
13) How much profit does the business generate in a year?
a. Less than $1,00,000$
b. Rs $2,00,000$
c. Rs $3,00,000$
d. More than $5,00,000$
14) Whether business able to repay loan amount?
a. Yes
b. No
15) Whole loan amount invest in Business?
a. Yes
b. No
16) Financing the unpaid business loan from?
a. Other Investment
b. Friends
c. Group Members
d. Remain arrears

Lenders Characteristics

| S.N | Statements | Strong <br> Disagree | Disagree | Neutral | Agree | Strongly <br> Agree |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 17 | There are written credit <br> policies that provides <br> guidance regarding loan <br> utilization/Repayment |  |  |  |  |  |
| 18 | The value of collateral used <br> for borrowing is reasonable <br> with the loan size |  |  |  |  |  |
| 19 | There is proper monitoring <br> and follow-up by the <br> authority |  |  |  |  |  |
| 20 | I am satisfied with the <br> procedure that MFIs <br> followed to approved a loan |  |  |  |  |  |
| 21 | MFIs arranged workshops, <br> technical instrument and <br> financial knowledge ,after <br> they granted me a loan |  |  |  |  |  |
| 22 | MFIs staff communicate the <br> term, condition and <br> payment schedule clearly |  |  |  |  |  |

## Loan repayment

| $\underline{\text { S.N }}$ | Statements | Strong <br> Disagree | Disagree | Neutral | Agree | Strongly <br> Agree |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 23 | The process/mode of paying <br> the loan is appropriate for me <br> to pay loan |  |  |  |  |  |
| 24 | My business generate enough <br> cash flows to repay monthly <br> installment |  |  |  |  |  |
| 25 | The collateral required for <br> obtaining loan is appropriate <br> for me |  |  |  |  |  |
| 26 | I am comfortable to pay my <br> loan monthly |  |  |  |  |  |
| 27 | The overall lenders behavior’s <br> influence me to repay timely <br> monthly installment |  |  |  |  |  |

28) How do you manage to repay monthly installment during Covid-19 pandemic?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
