Microfinance Repayment Rates in Afghanistan

Micro-Finance and Repayment Rates?

Micro-Finance Institutions in Afghanistan and the Main determinants of Repayment Rate

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Abstract

The purpose of this paper is to study a comprehensive analysis of the performance of microfinance institutions (MFIs) in terms of repayment rate performance. In order to do this study, we use databases from MFIs from Afghanistan. Considering our research questions, the main question is "What are the determinants of MFI loan repayment rates in Afghanistan?" The data we have gathered from Afghan MFIs will allow us to distinguish the factors, which have more effect on the repayment rate performance of MFIs. Results showed that the determinants of repayment rates are type of loan, size of loan, interest rate and gender. Based on our theoretical research and empirical research we observed that individual loan products have a more positive influence on the repayment rate performance of Afghan MFIs than group loan. Higher size of loan has a significantly positive impact on the repayment rate performance, and we found that age or cycle of loan has a more positive effect on the repayment rate performance of individual loan than group loan. Conversely, increasing interest rates have a negative influence on the repayment rate performances. Likewise, we found that concerning gender (the question whether the borrower is male or female), female borrowers have a more positive impact on the repayment rate compared to male borrowers.

Key-Words: Microfinance, repayment rate, type of loan, size of loan, age or cycle of loan, interest rate, gender, Asia, Afghanistan

Management summary

This research provides a holistic investigation regarding microfinance institutions (MFIs) repayment by focusing on MFIs in Afghanistan. We aim in this research to identify the determinants of repayment rate and the impact of these factors on the performance of repayment rate.

The main goal of this research is to improve the performance of MFIs in general, and particularly we focus on Afghan MFIs from repayment rate perspective by recognition of the main determinants of repayment.

To achieve our main goal we need to recognize all aspects of repayment rate which impact on the performance of repayment rate. To identify all these aspects we provide two research methods, with this purpose in mind, we conduct a comprehensive theoretical research and empirical research. Accordingly, our theoretical research investigates all relevant literature and online information concerning determinants of repayment. Indeed, this theoretical research is carried out based on desk research. Respectively, our empirical research conduct is based on gathering data from Afghan MFIs, e.g. OXUS-A, and the First Micro-Finance Bank Afghanistan ("FMFB-A") databases, interviews, skype contact, and telephone contact.

Based on our main objective in this research, we are committed to recognize the most significant important determinants of repayment, which effect positively and also negatively on performance of repayment rate. With this purpose in mind, we investigate very rigorously both from theoretical perspective and empirical perspective. Accordingly, we recognized that the determinants of repayment rates are: type of loan, size of loan, interest rate, and gender. Subsequently, we noticed that some of these factors each included different aspects. For instance type of loan includes group loan, business individual loan, housing loan, agricultural loan, and Islamic loan. Moreover, gender entails male borrowers and female borrowers. Respectively, each above-mentioned aspect of repayment impacts on performance of repayment rate in a positive or negative way. In terms of repayment rate performance, individual loans perform better in Afghanistan compared to group loans. Respectively; in the first loan or first cycle of loan, small size of loan shows better performance in terms of repayment rate than higher amount of loan, because borrowers have no experience with the loan and they do not know much regarding policy and procedure of MFIs as well; thus disbursing higher amount of loan will lead to default risk.

Furthermore; increasing interest rate decreases spontaneously performance repayment rate, however interest rate is a significant important aspect for MFIs and this aspect demonstrates the financial performance of MFIs. So, keeping lower interest rate, will impact positively on repayment rate performance, since borrowers will be able to repay their loan more easily.

From gender perspective, we observe that female borrowers have better repayment rate performance compared to male borrowers. This implies that female borrowers are conservative in terms of business strategies and they invest in types of businesses that allow easier repayment.

In order to have a better repayment rate performance, we highly recommend to Afghan MFIs to focus on positive determinants of repayment rate and avoid negative determinants, which are demonstrated in this research. In terms of types of loan, Afghan MFIs can focus mostly on business individual loans and Housing individual loans, since these two types of loan included collaterals and third party guarantee, which collaterals and third party guarantee lead to better

repayment rate performance. Moreover, from size of loan perspective, we recommend that Afghanistan MFIs disburse a lower amount of loan in the first cycle of loan than the demand of borrowers, since this leads to avoid default risk. In addition, often borrowers in the first cycle of loan have less experience, less awareness concerning loan repayment policy and procedures, thus disbursing a lower amount of loan will be less risky, from repayment rate perspective. Likewise, in terms of interest rate, we recommend to Afghan MFIs to keep the interest rate as low as possible, since this leaded to increase of repayment rate performance and prevents past due. Based on this research, gender entails male and female borrowers and they are the key driver of MFIs. Accordingly, we highly recommend Afghan MFIs to focus more on female borrowers, as they are currently focusing on male borrowers.

Foreword and Acknowledgments

This thesis is written as part of the MSc programme Business and Management Programme. The scope of this master programme encompasses the study of different scientific fields related to the type of loan, size of loan, interest rate and gender repayment rate within micro-finance institutions. This thesis is part of the plan which leads to the specialization in Micro-Finance Repayment Rate; its presentation is bringing me closer to graduation. This big step would not be possible without the help of some special people to whom I would like to express my gratitude.

First of all, I want to thank my wife for blindly believing in me and for all her support throughout these years. If it was not for her, this thesis would not be possible. I want to extend this gratitude to the rest of the members of my family, from my parents, brothers and sister till my overseas relatives, as they have always been there to back me.

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Declaration

I hereby declare that I am the sole author of this master thesis and that I have conducted all the work with regard to this study individually, under the supervision of Prof. Onno Omta. I remain responsible for all the interpretation and analysis of the field data gathered during the interviews, observations, public lectures and online workshops in Afghanistan. None of the respondents, whatsoever, is responsible for the analysis of the statement present in my thesis. Furthermore, I declare that all literature and materials used in this thesis are acknowledged, and references are made in the texts. This thesis has not been presented to any other examination authority.

I am aware of the legal consequences of a declaration of honor.

Mirwais Jahish

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List of acronyms

MFIs	Microfinance Institutions
OXUS-A	OXUS-Afghanistan
FMFB	First Micro-Finance Bank
FMFB-A	First Micro-Finance Bank-Afghanistan
FINCA	Foundation for International Community Assistance
USAID	United States Agency for International Development
MISFA	Microfinance Investment Support Facility for Afghanistan
BRAC	Bangladesh Rural Advancement Committee
BRAC-A	Bangladesh Rural Advancement Committee-Afghanistan
USD	United States Dollar
AMA	Afghanistan Microfinance Associations
GRQ	General Research Question
SRQ	Sub-Research Question
GL	Group Loan
GR	Group Repayment
JL	Joint-Liability
PM	Peer Monitoring
IL	Individual Loan
HL	Housing Loan
AL	Agricultural Loan
ST	Social Ties
PS	Peer Selection
LTV	Loan-To-Value
IL	Islamic Loan
SC	Sharia-Compliant
IMFLs	Islamic Micro-Finance Institutions

IMLPs	Islamic Microfinance Loan Products
IMP-A	Islamic Microfinance Programme in Afghanistan
UAE	United Arab Emirates
HMF	Housing Micro-Finance
IFC	International Finance Corporation
NID	National Identity Card
GDP	Gross Domestic Product
LC	Loan Cycles
LS	Loan Size
NFSL	National Foundation System Literacy
NFSH	National Foundation for Spinal Health
IR	Interest Rates
NGOs	Non-Governmental Organizations
5Cs	Character, Capacity, Collateral, Capital, Condition

1. Introduction

The main goal of microfinance Institutions (MFIs) is to provide loans and other financial services to poor entrepreneurs worldwide with a particular focus on developing countries in order to improve the financial situation and help alleviate poverty. If microfinance works then this phenomenon is not only the world's most powerful new solutions to poverty, but also the best solution to wars, diseases, and suffering that poverty ignites (Datar at el., 2008). Most of MFIs are profit oriented and they attempt to enhance their repayment performance. High performance in repayment rates are mainly associated with benefits both for the MFI and the client (Godquin, 2004). Godquin (2004) argued that a greater repayment performance will enable the MFI to reduce the interest rate, it charges to the clients, therefore decreasing the financial cost of credit and allocating more clients to have access to it. Increasing repayment rates may also have direct impact on releasing MFIs from subsidies and enhance self-sufficiency. Godquin (2004) emphasized that MFI with a high repayment rates provides sufficient services to clients' needs. He said that high repayment rate in MFIs constraints the incidence of cross-subvention across the borrowers.

In addition, a perfect repayment performance is 100% and this is the best level of repayment performance. Likewise, (Godquin, 2004) suggest that if the maximum repayment rate the MFI can attain given its lending methodology is lower than the targeted 100%, the MFI may apply second-level strategies to enhance its repayment performance. This strategy is providing larger loan to clients with lower default likelihood and MFIs efforts to decrease the delinquency on repayment. To reach for these targets the MFI will use incentive mechanisms.

The repayment performance will be a key variable for donors and international funding agencies on which many MFIs still depend for their access to funds. Moreover, the main aspects impacting repayment are either linked to information asymmetries (Stiglitz and Weiss 1981), to opposing shocks influencing clients, or to the low performance of organizations as justice or education (Godquin, 2004). Stiglitz and Weiss (1981) argued that information asymmetries occur when acquiring information on the determinants or on the behavior of the borrowers is costly for the MFI. Information asymmetries born problems of adverse selection allocation of loan to clients with undesirable features, as incapability to take the advantage of the loan or high level of risk, or moral hazard, the borrowers may behave in an undesirable way (make little or insufficient attempt to take advantage of his loan or used it for unproductive purposes). As well as, the most clients, who are not able to repay their loan on time, the proportion showed increasing of adverse selection and moral hazard.

Through increase in the interest rate the proportions of repayment performance reduced (Stiglitz and Weiss 1981). Interest rate is much significant factor of repayment rate. High interest rate enhances the odds of client delinquency while loan size is inversely related to delinquency, (Kodongo and Kendi 2013). A productive use of the loan reduces the default risk, which in turn, lowers the interest rate, Mallick (2012). Mallick emphasized that MFIs could increase productive investment by allowing more flexibility in loan disbursement and repayment schedules. By expanding MFIs programs from loan-only to loan-plus, borrower projects would also be more profitable. This is credit with skill development training, information, and provision of inputs. Repayment rate from gender perspective reveals that female clients have a better performance in MFI, such as a study on Italian micro-firms and self-employed individuals by Alesina, Lotti, and Mistrulli (2008) demonstrated that women have a slightly greater credit history than the men, however women in developing countries have smaller businesses than man, and this showed that women are poorer than man, (Agier and Szafarz,. 2010).

Accordingly, this study focuses on repayment rate performance of MFI on Afghanistan. We have gathered our data from "*original data bases*" MFIs on Afghanistan, such as The First Micro-Finance Bank (FMFB) and OXUS Afghanistan. In our research we found that currently huge numbers of MFIs in Afghanistan are depending on subsidies. Most MFIs in this country receive funds from donors, such as The World Bank and other international funding agencies. Our empirical study show that likely more MFIs on Afghanistan are depending on funds from other international donors, such as the World Bank and United States Agency for International Development (USAID). We fund that the preference targets, which Afghans MFIs should achieve are as client outreach and sustainability. The most significant one is sustainability. Sustainability is only possible through maximum repayment rate, thus to have a better repayment rate we should recognize those factors, which influence on performance of repayment.

In this research, we contribute to the enhancement of MFIs repayment performance by examining their type of loan, size of loan, interest rate and gender performance with a particular emphasis on "Afghanistan microfinance repayment rate". Our empirical study show also that type of loan, size of loan, interest rate and gender are the main concepts of repayment rate, which effect on repayment performance.

1.2 Problem Analysis

Repayment rate is significantly an important measurement concept for performance of microfinance institutions (MFIs). The performance of this concept is key variable for donors and international funding agencies on which huge numbers of MFIs are still depending for their access to funds (Godquin, 2004). MFIs with higher repayment rate performances would be enabled to cut that interest rate it charges to the clients, therefore decreasing financial cost of loan and allowing more clients to have access to it. Across the world most MFIs are not sustainable yet; since they have less improvement from repayment rate perspective. For example, huge numbers of Afghanistan MFIs are currently depending on subsidies, which they obtain from The World Bank and other international funding agencies.

Likewise, providing better repayment rate will help MFIs to be less depending on subsidies. Donors provide MFIs with funds to be survived and active in the market, but this fund is for a restrictive time, for instance Afghanistan MFIs have been support by donors for maximal five years. Afghanistan MFIs should have sufficient repayment rate performances during the five years, because funding agencies given targets for MFIs that each of them should be sustainable up to end of their assigned period. Moreover, all MFIs activities evaluate by donors after each three months, however MFIs must to have monthly loan repayment performance reports.

Accordingly, improving repayment performance is depending on type of loan, size of loan, interest rate and gender, as several studies and our empirical research show. These factors of repayment rate effect on performance of MFIs from repayment perspective. Currently, MFIs provide different types of loan, such as group lending, individual lending, agricultural lending, housing lending, and Islamic lending. To have a better repayment rate and avoid risk MFIs need several requirements. For example, credit rationing and collateral requirement are the conventional means applied by banks to tackle with information asymmetries in the credit market, however both approaches lead to the deprivation of poor

customers (Stiglitz and Weiss, 1981). To illustrate the performance of microfinance in providing loan to the poor, a wide range of literature applies the principal/agent approach to show that microfinance contracts lending to joint-liable groups allow the lender to avoid moral hazard and adverse selection due to information asymmetries (Stiglitz, 1990 and Ghatak, 1999). Moreover, joint-liable credits groups help perform repayment as social interactions make strategic default more costly (Besley and Coates, 1995). Social ties and group homogeneity are also indirectly related to repayment performance and they can accelerate peer monitoring, and peer pressure or consequent from an effective peer selection of group members (Besley and Coates, 1995 and Stiglitz, 1990). (Armendariz and Morduch, 2000 and Besley, 1995) argued that fixed repayment schedules and dynamic incentives are other suitable incentive mechanisms applied by MFIs to enhance their repayment performance.

Furthermore, increasing size of loan or larger amount of loan effect on the repayment installment (Godquin, 2004), however the expected interest rate for the clients will thus enhance with the size of loan for a given duration loan. MFIs disburse loan for male and female poor entrepreneurs, bust several studies show that female borrowers have better repayment rate performance during their loan history than male. Currently, most MFIs across the world attempt to focus on female borrowers than male. For instance, Todd (1996) argued that Grameen villages in Bangladesh already experienced that women have higher repayment records than men. Respectively, Agier and Szafarz (2010) suggested that recently in Brazil discovered that women have better loan contracts than men.

Considering gender effect on repayment rate performance a wide range of literature argued that gender has impact on performance of MFIs in terms of repayment. The basic goal of MFI is to improve the economic situation of poor entrepreneurs in the developing countries and provide them with variety of financial services. Most MFIs are financial oriented and they aim to become autonomous by performance of their goal, which is financial self-sufficiency. MFIs attempts to become sustainable over time, to reach for this goal MFIs need to measure their performances. For measuring these performances, MFIs need to have a specific target group, such as male and female borrowers. Men and women have been targeted by MFIs at the initial stage of MFIs. Moreover, several studies exhibit that most female borrowers are entail within grouping loan, conversely individual loan are including within more male borrowers. Accordingly, our empirical researches in the preliminary stage demonstrate that individual loan disbursed often for male borrowers than female. From repayment rate perspective we found that male and female borrowers have the same repayment rate performance.

1.3 Research Objective

The objective of this research in relation to the problems will be:

Provide a strategic recommendation to MFIs in Afghanistan how to recognize those factors which have positive impact on the repayment rate and how to stimulate their clients to be more enthusiastic in terms of repayment in order to create and successfully manage more and valuable loan repayments.

The objective of the research for the researcher:

Identify the most significant determinants of maximum repayment performances, by providing and analysis of the composition and management of repayment performance similar to the setting of MFIs in Afghanistan.

1.4 Research Question

The main research question that will be answered through this research is:

General research question (GRQ):

What are the determinants of MFI loan repayment rates in Afghanistan?

The sub questions that will be used to answer the main central research question are:

Sub research questions (SRQ):

1. To what extend types of loan have impact on repayment rate performance?
2. To what extend size of loan age or cycle of loan effect on loan repayment rate performance?
3. Does interest charge impact on loan repayment rate performance?
4. To what extend gender influence on repayment rate performance?

1.5 Conceptual Framework

This section provides theoretical and conceptual perspectives on the issues discussed above. In the following, concepts that contribute to our research as "type of loan, size of loan, interest rate and gender repayment rate" are outlined and explained within the theoretical dimension. They are divided according to this thesis into eight chapters that emerged from this study.

The first chapter which concludes within this paragraph "conceptual framework" and commerce with introductions introduces the problem analysis, the research objective, and the research questions.

The second chapter begins with literature study, which is meant as a background section and explains the definition of type of loan as well as features of type of loan, such as group loan, individual loan, and Islamic loan. Also this chapter defines loan cycles and loan size concepts. Respectively, this chapter focuses on interest rates with particular emphasize on the definition and features of this concept. Likewise, this chapter focuses on gender, as male and female borrowers and their impact on the repayment rates performances.

The third chapter presents the methodology, which used to answer the first chapter of this thesis. The fourth chapters present the empirical research and analyzing of the data that we have gathered from Afghanistan MFIs. This chapter shows the influence of type of loan, size of loan, interest rate, and gender on the repayment rate performance of MFIs into Afghanistan.

Subsequently, chapter five launches with conclusion and this chapter explicitly answer the research questions. Respectively, chapter six will be focused on the discussion of this

paper and explain our findings, restrictions, and expecting to be done more researches. Likewise, chapter seven explains limitations of this study regarding our theoretical studies and empirical researches.

Accordingly, chapter eighth will be aimed to gives a good recommendation for Afghanistan MFIs according to our theoretical and empirical researches.

2. Literature Study

This chapter provides the result of literature research. First types of loan will be described in section 2.1. Subsequently, provides the definition and the impacts of types of loan on repayment rate performances. Section 2.2 describes loan cycle and loan size effect on repayment rate. In section 2.3 the iinterest rates and the influence of this aspect on the performance of repayment rate will be investigated. Section 2.4 investigates the performance of repayment rate from gender perspective.

2.1 Type of loan and repayment rates

Repayment has different dominants which effect on the repayment rate performance of MFIs as mentioned above. One of the dominants of repayment is types of loan. This section describes the types of loan by answering the first sub-research question: "To what extend types of loan have impact on repayment rate performance?"

Type of loan is a vector of dummy variables demonstrating which type of loan a MFI predominantly provides. This concept plays significant role amongst microfinance institutions in terms of repayment performance. Considering types of loan, we would deeply focused into dimensions of this concept from literature point of view and classify all the aspects of types of loan, since the incompetency of a MFI may depend on the types of loan it predominantly provides. In general terms, from literature perspectives MFIs provide variety of loan products, such as group loan, individual loan, agriculture loan, and Islamic loan or compliance Sharia loan.

Group loan

Group lending has been considered one of the main attributes of microfinance. The main idea behind this product was to enhance the repayment rates by solidarity and joint-liability between group members. Moreover, this product is one of the earliest products in the microfinance family, which has been created by Muhammad Yunus the founder of Grameen Bank in Bangladesh. Group loan has demonstrated a better performance in Bangladesh, thus subsequently most MFIs across the world were interested for group loan. Several studies show that group loan has variety of dimensions. In this paper we will focus on some of them. These dimensions impact (both positively and negatively) in performance of microfinance institutions from repayment rate perspective. Armendariz and Gollier, (1998) suggested that group loan has less transaction costs, greater market segmentation and credit rationing as positive impact on performance of MFIs. Respectively, solidarity and joint-liability among group members also is as positive impact of group loan, and these two aspects (solidarity and joint-liability) as well use as local information that customers have about each other's projects through self-selection of group members in the group formation stage (Ghatak, 1999). In addition, joint liability lending is popular as a contractual innovation that has attained the obvious miracle of empowering earlier marginalized customers to lift themselves up by their own bootstraps by generating "social collateral" to substitute the missing physical collateral that deprived them from availability to more traditional forms of finance (Conning, 2005). Nevertheless, the disadvantage of joint-liability lending programs is that the poor customers are given availability to loan without collateral, and in the occurrence of default, they cannot be punished beyond a mere refusal of future availability to loan. Conning (2005) argued that this type of "*limited liability"* can persuade customers to take more risky decisions.

Moreover, moral hazard and adverse selection are two significant aspects of group loan, which influence conversely on the performance of group loan, and they reduce performance of MFIs from repayment rate perspective. Moral hazard may growth once individuals involve in risk distribution under situations such that their personal taken actions influence the likelihood distribution of the consequence (Simtowe, et al. 2006). It happens in a principal-agent relationship when actions taken by an agent are not pareto-optimal (Holmstrom, 1979). Likewise, aspect of adverse selection rise when the MFIs are imperfectly aware about the riskiness of customers' projects and, thus cannot distinguish against risky customers, interest rate become incompetently high, and worthy customers are driven out of the credit market (Aghion, *et al*. 2005).

In an attempt to entirely illustrate the prosperity of joint liability loan in alleviating moral hazard and increasing repayment, authors have suggested models that attempt to describe how this is feasible.

Among the most considerable theories of moral hazard are models by Stiglitz (1990) and Ghatak and Guinnane (1999). Stiglitz (1990) demonstrates that how peer monitoring under joint liability loan program can be applied to alleviate moral hazard. Through joint liability loan, this is supposed that group members, who are jointly liable to the loan, will be persuaded to monitor each other's investment decisions and efforts, thus decreasing the cost of monitoring by the MFI and as a result alleviating moral hazard. Thereby, customers are plying two tasks both managing their loan, and monitoring peers to ensure that they take wise and safe decisions that will protect them from past due and delinquent. Simtowe, et al (2006) argued that monitoring can be very costly for MFI in reality, thus the assumptions suggested by Stiglitz cannot hold.

By change of purpose from a pattern by Stiglitz, Ghatak and Guinnane (1999) suggest reconsideration on the assumptions of costless monitoring, through demonstrating that peer monitoring is costly. In addition, they report the condition under which best agreement can still be attained taking into account the cost of monitoring. Furthermore, they argue that a client's willingness to reimburse the loan will be contingent on how they appreciate the access to further loan from the same MFIs. If a client's business yields sufficient output consequently, he/she is able to reimburse the loan. Borrower will do it only if the advantage of defaulting, the interest, is less than the (discounted) net benefit of continued access to loan (Ghatak and Guinnane, 1999).

The joint-liability

The main story of group lending with joint-liability is that if one member of the group cannot pay a loan, than other members of the joint-liability group will do so (Ahlin and Townsend, 2007). The joint-liability is as an agreement in which the provision of the private good, as individual's access to loan, is created provisional on the providing of the public good, such group repayment (Matin, 1997). Often joint-liability refers to a condition in which more than one parties are undertaking for repayment of a liability or obligation and MFIs can be compensated from them either individually or jointly (Simtowe and Phiri 2006). This implies the belief that joint liability loan is a potential break through strategy in economic development as it empower the poor, such as access to group loan without any land title or collateral that they would otherwise never access individually.

Below figure exhibits a relational presentation of loan cycle and stages in the joint-liability loan product pattern beginning from identification of clients through to repayment.

Each phase in the figure is associated with a problem that the joint-liability section is supposed to address, and also a theoretical solution. This figure is following as: loan installments are the stages of monitoring, return fulfillment, repayment or non-repayment. The process with penalties of non-refinancing ends in case of default.

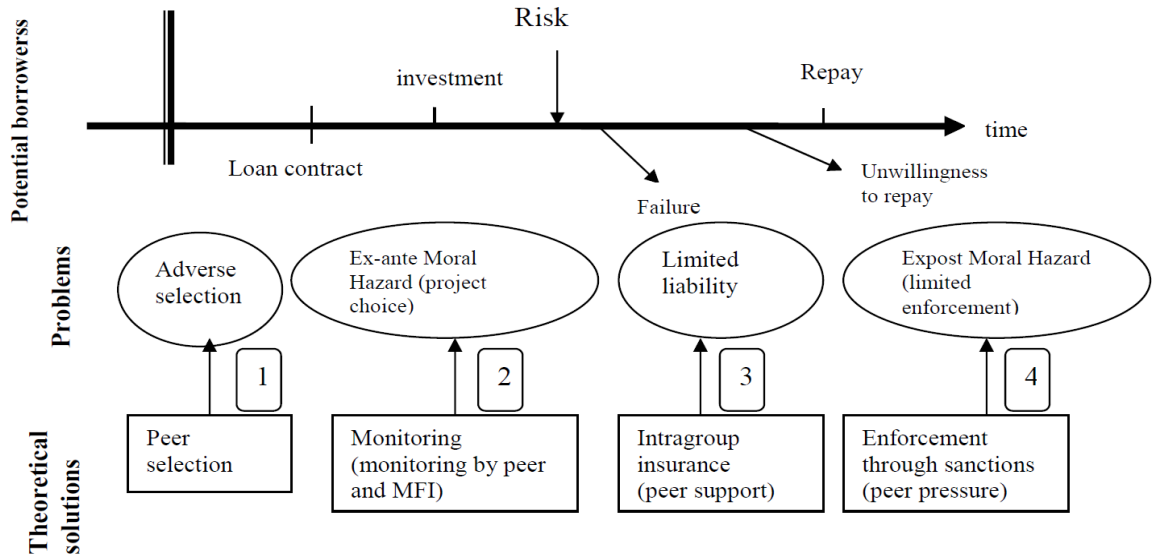

Figure 1: Problems and solutions in a multistage joint liability loan (Sadoulet, 2004).

As illustrated in the figure 1, at the first period you see a huge number of potential clients that they are trying to access loan. Nevertheless, borrowing is contingent upon group dependency. Knowing that a lending group will sign a joint-liability contract with the financial institution, each client, by peer selection attempts to match with members of similar risk type. Process of self-selection in the grouping loan reduces the occurrence of adverse selection (Ghatak, 1999).

Likewise, the second stage is the investment period, which the financial institution or "lender" is faced with an "*ex-ante*" moral hazard problems. This happens when a client either chooses to invest in a risky business or misuses the funds or when the client does not use enough attempts to manage the investment, which may lead to less return. This problem can be alleviated by applying in theory of peer monitoring. In this context, a complementary monitoring is significantly beneficial, which decrease the incidence ex-ante moral hazard, and this should be done by loan officer of MFIs. Joint-liability emphasizes on monitoring by peers, since monitoring by MFI loan officers is assumed to be costly.

Consequently, the third stage of the figure 1 launches with investment outcomes. This investment may fail due to a number of reasons, some of which are beyond the monitoring of clients, such as idiosyncratic shocks. Currently the problem is that there exists restricted liability. Under joint-liability group members that they have no past due problems can contributed in paying the defaulter's loan (intra-group insurance). Ultimately, the last problem is linked to "ex-post" moral hazard. This is a second aspect of the general moral hazard subject in lending contracts. This arises when the levels of attempt have been conducted and the yields of the investment have been recognized, when a client detects it optimal to deviates the funds for repayment of the loan to other intention. As a result, in joint-liability loan using

peer pressure and social sanctions can solve the problem of ex-post moral hazard (Sadoulet, 2004 and Simtowe, *et al.,* 2006).

Key factors which influence on group repayment

The incidence of moral-hazard between credit groups is a hate issue. This aspect (moral-hazard) reduces the performance of MFIs and mitigates also the repayment rates. We find a very limited number of empirical studies which have been carried out on moral hazard. Wydick (1999) measures the incidence of moral hazard among group loan in Guatemala, and he suggests that joint liability works because of social correlation and better information flow. Respectively, the other key factors of group loan are, such as dynamic incentives, sanctions and matching problems impact the incidence of moral hazard (Simtowe, *et al.,* 2006). A study about the incidence of moral hazard among group loan from Eritrea finds that the social ties and peer monitoring are key factors impacting the probability of moral hazard among clients (Hermes *et al.,* 2005).

Peer monitoring

Peer monitoring is a significant aspect of joint-liability loan (Simtowe, *et al.,* 2006). In terms of repayment performance in group loan peer monitoring demonstrated by a number of studies. Stiglitz (1990) suggest that the most problem involving MFIs is ensuring that the clients rehearsal prudence in the implement of the funds, hence that the probability of repayments is improved. Stiglitz (1990) emphasized that peer monitoring is a partial answer to this problem, giving neighbors or members of group the accountability to monitor performance of each other within their group. The group members are assumed to pay loan for any defaulting, thus the incentive arises for peer monitoring. Considering the incentive rationale approach for the use of group loan as a process of financing liquidity constrained entrepreneurs, Che (2002) shows that the joint-liability drops the liquidity risk of default, but generates a free-riding problem. In the static setting, the free-ridding problem overcomes the liquidity risk effect, therefore making group loan unappealing. In terms of joint-liability, when projects are over time repeated, the joint-liability feature provides the group members with a reliable means of exercising peer monitoring and sanctioning that can enhanced the attractiveness of group loan, relative to individual loan (Simtowe, *et al.,* 2006 and Che, 2002).

Social-Ties

This section focuses on the impact of social ties within group loan on moral hazard behavior of group members, and this may contribute to higher repayment rates. In context of social ties, some studies focus on the function of social ties between group members in decreasing moral hazard behavior through individual members. The value of social ties demonstrated in terms of the subsequence of non-repayment on group member for her/his position within a present social network, as non-repayment may have a negative effect on the other group members' present asset and future availability to credit (Hermes et al., 2005). Hermes et al., (2005) suggested that robust social ties will assist the flow of peer monitoring and peer pressure. It has believed that because of these ties group members will have greater information to monitor and will easily pressure for repayment (Floro and Yotopoulos, 1991).

In the other hand, some other studies have signified that the social networks may have negative impact to pressure for repayment. Wydick (1999) argued that since borrowers know each other very well and have close social ties, they will be less keen to pressure for repayment. For example; close relative such as family or friends will be less keen to use

pressure for be afraid of losing family or friends, thus in such occasions appreciated relative greater than losing money (Conning, 2005). Social ties inside the group loan substituted by the age of the group and enhanced a negative influence on the repayment rate. This is remarkable that there is a slightly change in the combination of the group loan, the consequence can be linked to the negative influence on repayment of the membership period (Matin, 1997).

Likewise, some other studies like Zeller and Coate (1995) indicate the importance of applying peer pressure to induce repayment within groups and reduce moral hazard. A related argument holds that when adequately robust and authentic threats of the use of social pressure exist, it will inspire individuals not to follow moral hazard behavior (Wydick, 1996).

A new model presents by Wydick (2001) that combined several of the abovementioned subjects related to the working of group loan. This model is focused on creating groups based on self-selection, but conversely with others models under imperfection information. Following, monitoring takes place, and group members assist those who have been encountered with adverse external shocks eliminate those who have misused the loan they have obtained by applying social sanctions. Wydick (2001) in his model explained grouping loan as dynamic peer review committees. There are very a few empirical studies on monitoring and moral hazard within group lending programs, but whereas the theoretical literature of these phenomena is quite extensive. Regarding this issue (monitoring and moral hazard) one possible description for this is that it is quite hard to reach consistent data on monitoring and moral hazard behavior of group members lending programs (Hermes et al., 2005). Wydick (1999) conducted an empirical study through using information from group lending programs in Guatemala. Wydick scrutinizes the role of peer monitoring, peer pressure and social ties within these groups in decreasing moral hazard behavior of individual group members. As a resulting, he demonstrates that while peer monitoring "to a lesser extent" peer pressure help to decrease moral hazard and enhance the repayment performance of groups, social ties do not have such influences.

Peer-selection

The peer selection provides group loan within mitigating adverse selection in moral hazard (Hermes *et al.,* 2005). Ghatak (1999) argues that despite information asymmetry, joint-liability loan allocates for Pareto superior equilibrium in credit markets, if group formation is carried out appropriately. Ghatak (1999) demonstrates that how groups shaped through self-selection will effect into members with homogenous quality. Ghatak emphasizes that through the assortative mating process, groups end up with fewer risk clients, instantly decreasing moral hazard, which lead to a less equilibrium interest rate leading to a Pareto greater consequence to individual loan.

Individual loan

Individual loan is relying on individuals' personal property, such as household furniture, appliances, or farm animals, as collateral. Individual loan partially can be opposite of group loan, since by enhancing in average of loan we would see a decrease in the number of borrowers. One features of individual loan product is that this product trends to be associated with increase average loan and at the same time a decrease in the number of credit clients (Mersland and Strom, 2009). Likewise, individual loan improve sustainability measure, conversely group loan improves outreach measures (Cull et al., 2007). Hermes et al.,

(2011) suggest that in terms of profitability, individual loan are the best approach for MFIs. The Latin American MFIs mainly provide individual loan, where for African MFIs group lending is relatively more important (Hermes et al., 2011). Cull et al., (2007) paper focuses at MFI financial performance and outreach as well, with a main emphasis on lending methodology, controlling for capital and labor cost as well as institutional features. They collect data from 124 rated MFIs, and demonstrate that financial performance is enhanced, up to a point, with individual loan, and that MFIs focus more on individual loan.

Moreover, MFIs with more individual loan show an improve on their return on assets (ROA) and exhibit a reduce on the operational costs, so decreasing on portfolio yield may be due to higher competition in these market segments or greater collateral or greater credit history in lending to individual borrowers, allowing the MFI to decrease its portfolio yield. This indication backups the ongoing propensity in the industry to turn attention from group lending to individual lending (Armendariz and Morduch, 2005)

As resulting, individual-based MFIs, particularly if they grow larger, concentrate higher on wealthier borrowers, a phenomenon termed as "mission drift" (Hermes et al., 2011). Furthermore, the percentage of male borrowers is higher for MFIs focusing on individual loan as compared to those MFIs is that mainly lend on a group basis. Accordingly, the percentage of borrowers above the poverty line is increasingly for MFIs that mainly use individual lending as compared to MFIs focusing on group and village lending (Hermes et al., 2011). Based on the above arguments we found that individual loan may entails with higher returns in form of interest for MFIs and increase their outreach, decrease past dues, and improve self-sufficiency. Whereas that MFIs provide individual loan targeted more male than female as well as targeted more above poverty line.

Group loan vs. Individual loan Programmes

Several studies demonstrated the key differences between the group lending and individual lending program. Dellien et all. (2005) argued, that the key differences between group lending and individual lending are e.g. since time and effort is invested in establishing social networks that enable groups to select members, such as who are creditworthy under group lending, also the role of loan officers is to provide structure, training on loan processes and administrative support. But in the individual lending, loan officers bear principle responsibility for loan decisions; they screen and control their clients as well as come up with mechanisms of enforcing repayment. As continuation of this argumentation they emphasized, that the principle of incentive for repayment of group loan is joint liability, group reputation, credit rating and future access to credit for each members, all of which are directly contingent each member upholding their obligations. On the other hand, individual lending program use a variety of incentives e.g. collateral requirements, co-signers and guarantors to promote repayment, and repayment discipline is created by strict enforcement of contracts.

Godquin (2004) suggests that these two contrasting features could explain in two ways. At first, matching problem (Paxton, 1996): by increasing duration of membership, the credit needs of the members of the group gradually develop differently. This situation could consequence in conflicts inside to group. This is also assumed that the delivery of intra-group insurance become more costly by increasing size of the loan and specifically if clients that are granted a small loan are still jointly liable for clients that are granted larger loan. A reducing control of social penalties could also describe this determinant: as the duration of the group loan become longer the members know each other better and, therefore they are more likely

unwilling to persuade and sanction each other. This approach seems to overcompensate to the advantages of the enhancing experience in the provision of intra-group insurance.

Group homogeneity in terms of education (same education) and age (same age) showed to have no considerable influence on repayment performance (Wydick, 1999). Likewise, Zeller and Sharma (1997) argue that this kind of group homogeneity has negatively impact on repayment performance.

In this research we found through a survey of the literatures, researchers have advanced conflicting arguments about the two types of lending programs. Such conflicting arguments about the approach to use in delivering credit services have left a gap and uncertainty as to which is the appropriate credit program, particularly where default risk mitigation is concerned.

Concept of adverse selection is huge problem into group lending, which led groups to more risk. Armendariz and Morduch, (2013) argued, that a popular remedy to this problems involves requiring borrowers to apply for credit in voluntarily formed groups. They believed that such borrowers know each other and safe borrowers will likely form their own groups, avoiding those with higher risk profiles, thus this approach mitigates the adverse selection problems. As we have searched for a maximum repayment rate by analyzing type of loan, size of loan, interest rate and gender, thus individual loan fetch greater returns in form of interest for MFI and boost their outreach, decrease delinquency, and increase sustainability, as also argued by, (Kodongo and Kendi,. 2013). Moreover, Sharma and Zeller (1997) argue that in Bangladesh group lending with higher percentage of women had significantly greater repayment rates.

In conclusion, our findings in this research show that there is not black and white between individual lending program and group lending program, since each concept has their own pros and cons. We emphasize that the most important factors, which have impacted on the type of loan are functioning and performances of microfinance institutions and also behave of culture and societies. For example: group lending program have a greater consequence in Bangladesh, conversely not in Afghanistan. In the early stage for the first time Bangladesh Rural Advancement Committee (BRAC) was established in Afghanistan as microfinance institutions. BRAC has begun microfinance program as group lending, the same as it was in Bangladesh microfinance institutions. Gradually, all MFIs in Afghanistan believed that group lending is the best approach at that stage of time. Conversely, after a while group lending programs faced with variety of problems in terms of repayment performance. Since our research focus on type of loan, size of loan, interest rate and gender repayment rate performance and we have collected our data from "actual databases" of Afghanistan MFIs, as well as we have evaluated varieties of literatures studies during our theoretical research and we found that the best approach for Afghanistan MFIs is individual lending programs. In terms of sustainability, individual lending programme may have greater outcomes than the group lending programs for MFIs in Afghanistan.

Agricultural loan

Agricultural lending involves giving out of credit "in cash and kind" to small scale farmers for the rationale of farming. Credit has significant roles in economic development. Kohansal and Mansoori (2009) said that agricultural household models suggest that farm loan is not only required by the restrictions of self-finance, but also due to uncertainty relating to the level of output and the time lag between inputs and output. In comparison to other

economic sector, the growth rate of investment in agriculture sector is slower as demonstrated by recent studies, although, agricultural investment in developing countries is one of the most significant factors to develop rural areas. In general terms, credit availability is the most significant factor for improvement of quality and quantity of farm products, which can enhance farmer's income and alleviate rural migration (Kohansal and Mansoori, 2009).

The main objective of this section is to investigate and analyses the impact of agricultural loan on the repayment rate, by analyzing data that we have collected from Afghanistan's microfinance institutions (MFIs).

Indeed, microfinance is a risky investment, since repayment of loan can rarely be fully guaranteed. Generally, in spite of the significance of credit in agricultural production, its acquisition and repayment are fraught with a number of problems specifically in smallholder farming (Awoke, 2004). Empirical studies have demonstrated that a huge rate of default has been a perpetual problem in most agricultural loan patterns organized or supported by governments (Kohansal and Mansoori, 2009). In addition, most defaults arise from inadequate management procedures, credit deviation and reluctance to reimburse loan. Accordingly, to reduce the risk of loan default financiers develop various institutional mechanisms, such as pledging of collateral, third-party credit guarantee, use of credit rating and collection agencies. Often farmers in rural areas have poor-assets. In this context, what is needed is institutional innovation that synthesizes prudent and sustainable banking principles with efficient screening and controlling strategies that are not based on physical collateral, such as land and home. In the context of credit markets activities, in developing countries, recent theoretical and empirical work in economics has found that these markets work incompetently due to a number of market inadequacies (Kohansal and Mansoori, 2009). The imperfections of market which lead to loan default include:

1. Interest rate ceilings typically imposed by the government.
2. Monopolies in credit markets frequently applied by informal lenders (Bell *et al., 1997).*
3. Huge transaction costs incurred by borrowers when requesting loan.
4. Moral hazard problems

The promise of MFI lies in the belief that microfinance could empower poor entrepreneurs to overcome poverty through easy access to credit. Microfinance institutions were introduced and viewed as alternative source of financial services in rural areas. It has a positive impact on agricultural productivity, and it is believed that microfinance would enable smallholder's farmers to easily access loan facilities without collateral. Farmers who are credit beneficiaries realized better agricultural productivity compared to the non-credit beneficiaries (Girabi and Mwakaje, 2013). Girabi and Mwakaje (2013) emphasized that farmers who acquire loan from MFIs may have relatively better accessing markets for their agricultural commodities, use of inputs and adoption of improved farming technologies. More than 100 million of the world's poorest families are covered by microloan worldwide (Daley, 2009). MFIs provide agricultural loan for poor farmers and these farmers attempt to invest within these loan in their farms, by purchasing seeds, labor and technology employed in agriculture (for example, tractors and ox-ploughs). Thus, farm or agricultural products will be more effective. Mohammad (1992) defines productivity as someone's ability to produce more economically and efficiently.

The literature highlights a wide range of factors which influence the repayment of agricultural loan (both positively and negatively). The factors that positively influence the

repayment of agricultural loan are farmer's experience, income, received loan size and collateral value; while loan interest rate, total application costs and number of installments has a negative effect on repayment performance of borrowers (Kohansal and Mansoori, 2009). Koopahi and Bakhshi (2002) found that use of machinery, length of repayment period, bank supervision of the use of loan also had significant positive influence on agricultural loan repayment performance. Conversely, incidence of natural disasters, higher level of education of the borrowers and postponing payments had a negative influence on agricultural loan repayment performance. An empirical study by Deng *et al., (1996)* developed an option-based model of homeowner's default behavior in a proportional hazard framework. These authors attempt to simulate the likelihood of default and default costs on zero-down reimbursement loan and afterward to evaluate the consequences with conventional underwriting standards. They found that "*if low-income borrowers are enticed by zero-down payment requirements and if no adjustment for the higher default rates is made, the cost of the implicit subsidy would amount from $74,000 to $87,000 per million dollars of lending" (Deng et al., 1996).* Further study by Quercia *et al.,* (1995) investigated a lower "loan-to-value" (LTV) ratio this study demonstrated that a lower loan-to-value (LTV) ratio at the time of initiation, such as "higher down payment" leads to lower default rates for rural borrowers with low income. These authors focused on the 1981 Farmers Home Administration Section 502 program and found that while contemporary equity value in rural low income mortgage loan is not accompanied by default, crisis events are. The default behavior on both groups (low-income and average-income) is responsive to negative contemporaneous equity, while default rates and default losses are higher for low income customers (Van Order *et al.*2000). The authors emphasize that the impact on loan risk of individual and neighborhood income is tiny for LTVs which are lower than 80%, but in ranges from 15 up to 50 basis points for higher LTV ratios. Enticing low-income mortgage borrowers with lower down repayment necessities, thus enhances the risk of default. (Oladeebo, 2003) focused on the socio-economic factors impacting loan repayment between small scale farmers in Ogbomoso in Oyo State of Nigeria. Several regression analyses demonstrated that amount of loan acquired by rural farmers; years of farming experience with loan use and level of education were the main factors that positively impacted loan repayment (Oladeebo, 2003).

Our data analyzing and our interview with different agricultural borrowers and agricultural loan officer in Afghanistan demonstrate that the most farmers in Afghanistan and other developing countries, are not conversant of converting their local units into standard international units. A high proportion of the farmers are using tins, plastics and heaps for market transactions, which would influence negatively on the quality of their crops. As resulting, what farmers expecting to sell their products in markets they do not achieve their expectation costs. As well as, most overdue on repayment of agricultural loan arose from lack of information and association between local MFIs, since often one farmer took different agricultural loan from several MFIs. Due to overlapping repayment and high amount of repayment, thus farmers are not able to repay their loan on time. When farmers are not able to repay their loan on time, there would be arose two types of risks. Firstly, delay on repayment and influence negatively on performances of MFIs. Secondly, risk for farmer that he/she would not be after that credit worthy for MFIs, since he/she is not a good borrower in terms of repayment record. In our research we find that in Afghanistan MFIs have no asymmetric systems into MFIs, thus a farmer can very easily take several loan from different MFIs. Girabi and Mwakaje (2013) argued that farmers' access to loan were demonstrated to be lack of information, inadequate credit supply, high interest rates and defaulting also less performance of repayment are such as high and deep poverty, enormous number of microfinance institutions.

Generally, a main strategy of governments in developing countries such as Afghanistan is help to develop the rural areas and enhance agricultural production through supporting and financing in the sector, in order that farmer's access to credit and direct to productive investment projects seems to be essential. In context of agricultural investment in Afghanistan, two financial institutions are proactive, such as "The First Microfinance Bank (FMFB) and OXUS-Afghanistan". These tow MFIs play a significant role in offering credit for agriculture sector in rural areas. This implies that, The First Microfinance Bank and OXUS-Afghanistan are the main institution of formal agricultural credit supply in Afghanistan that can direct agricultural credit flow such that helps general economic policies of government. So main work of FMFB and OXUS-A comprise financing farmers and related industries and contribution in activities, which other private sectors are unable to invest in it. Since, lending activities for MFIs is accompanied often with some risks and problems, thus a main part of financial resources of FMFB and OXUS-A come through recovery of overdue granted loan.

Islamic loan or Sharia-Compliant

This section describes the most common Islamic financial products and links their structure to the effect of repayment rates on the MFIs. Often MFIs operate in Islamic countries, such as Afghanistan where we have gathered our data from MFIs. In the last two decades MFIs significantly grew up in Afghanistan, but the same time they faced with different challenges. One of these challenges is fixed interest charge in loan repayment. According to the Islamic scholars, this fixed interest charge is entirely opposite of Islamic regulations, since in Islam fixed interest charge is not allow.

Accordingly, MFIs attempted to offer an alternative product in the market, which adopt with Islamic roles. Thus, MFIs provided an innovative loan product, which is Islamic-loan or Sharia-compliant. Islamic or Sharia-compliant lending products are financial transactions that do not infringe from instructions of the Koran. So, Islamic financial transactions cannot comprise the interest payment (Reba) at a predetermined or fixed rate. Moreover, the Koran specifies profit-loss-risk sharing agreements, the purchase and resale of goods and services and the provision of financial services for a fee. A second significant feature of Islamic loan products is that they are commonly prohibited from trading in financial risk products, such as derivative products. Respectively, for Islamic microfinance and their customers to comply with Sharia, over the past decades, specific products have been developed that avoid the concept of interest and suggest a particular degree of risk-sharing (Beck *et al*., 2013).

With the development in Islamic loan as well as microfinance, this is likely surprising that the Islamic microfinance sectors have been not rapidly growth. In 2007, in a broad survey of Islamic microfinance institutions, the Consultative Group to Assist the Poor, the microfinance arm of the World Bank, estimated that there were 380,000 customers from Islamic microfinance institutions compared with 77 million customers of conventional microfinance institutions (Karim *et al.,* 2008). The current state of global financial crisis has not solely shed skepticism on the appropriate performance of conventional "Western" banking, but has also enhanced the consideration on Islamic banking (Willem, 2009 and Aman, 2012). Academics and policy makers similarly spot to the benefits of Sharia'-compliant loan products, such as the mismatch of short-term, on-sight demandable deposits contracts with long term doubtful financial contracts is alleviated with equity components.

Moreover, in terms of population targets that demand financial services, Sharia-compliant loan are extremely appealing, which this product is solid with their religious beliefs.

Consequently, one significant determinant of Islamic microloan or Islamic Microfinance is the pass-through of risk or sharing risk between depositor and borrowers. Likewise, among the most Islamic lending microfinance institutions are partnership loan between Islamic microfinance and customer. This is often occurred by providing the *Mudaraba* contract and the *Musharaka* contract (Beck *et al*., 2013). We would describe these two products in details in the Islamic micro-loan products in the below paragraph.

Islamic micro-loan products

The Islamic loan products or Islamic microfinance sector has far less of a track record compared to conventional microfinance, since the micro-loan aspect demonstrates a higher proportion of Islamic microfinance institutions' (IMFIs) activities. There are four approaches for developing Islamic loan products on a micro-level; which reflect the types of contracts expanded by Islamic loan products with the exception being the fourth: "*qard al-hasan".* The other three, in the order in which they are used: *murabaha, ijara,* and *mudaraba/musharaka* (Obaidullah, 2008).

In *Murabaha,* this product provide good for clients instead of lending money, such as the clients request (what they required) that the bank purchase a good for them. This means that the good purchased by the bank and re-sold with a mark-up to the client. Furthermore, to make it a credit product, rather than solely a sales product, the bank will make a regular schedule of equal installment payments over several weeks or months (Obaidullah, 2008).

In *ijara,* Islamic microfinance institutions provide this product both traditional leases and financial leases, although the financial lease is not the same as conventional financial lease in how the transfer of ownership is made. In addition, in the *ijara* used to credit the purchase by the client of an asset, the IMFI purchases the assets and lease it for a fixed period of time, with providing a schedule with fixed periodic installment repayments. Also, when the lease period ends, ownership of the asset is transferred to the client. The asset transfer to the clients in two conditions, either through a sale for a nominal price or as a gift, and this is not technically part of the *ijara* itself. The main significant difference between conventional lease and IMFI leases is that IMFI is accountable for the costs associated with maintaining and insuring the asset (applying *takaful*, the Islamic custom of federalizing money to cover a cost) (Obaidullah, 2008).

Despite of fact that *Murabah* and *musharaka* represent a more authentic form of Islamic loan, but these two types of products in microfinance and large-scale of Islamic loan products have not explored. Respectively, *Murabah* and *musharaka* are similar to venture capital and joint ventures. This implies that under a *mudaraba* product, the IMFI provides loan to customers and agrees to a profit sharing split. All financial losses are borne by the IMFIs. Over the period of the contract, the customer make profit-sharing payments to the IMFI, also buying one share of the IMFIs investment in their microbusiness. This means that the future profit-sharing payments will decline, but in conventional microfinance conversely, the customers' payments will be reducing during the term of the *mudaraba* (Nadeem, 2010). Moreover, Nadeem (2010) expressed that a *musharaka* based on microfinance product, functions similarly to a Mudarab, except that both party (the customer and IMFI) contribute funds to the business, and so both are engaged for any losses, in proportion to the amount of

funds they contribute. The periodic profit-sharing payments and share purchases by the customer work the same way.

One of the less useable Islamic loan products is *qurd al-hasan* (a benevolent loan). There have been efforts to combine it into Islamic loan products, but it is not easy to sustain. Since, the lender is forbidden from accepting any amount in excess of the amount lent (as interest charge) when the money is repaid. Furthermore, it also is expected to forgive the loan if the borrower is not able to repay. So in terms of financing product, *qurd al-hasan* loan will not be sustainable on their own, however there is presumably a scope for *qurd* loan to be applied by IMFIs in their charitable operations.

2.2 Size of Loan and Repayment Rates

This section focuses on the loan cycle and loan size by answering the question: "To what extends size of loan and age or cycle of loan effect on loan repayment rate performance?"

Typically, MFIs provide their clients with variety of size of loan and often increasing size of loan is depending on the cycle of loan, such as first cycle of loan, second cycle of loan, and third cycle of loan… This is considerable that MFIs devote larger loan for clients they expect to have a lower default probability. Moreover, MFIs dedicate larger loan to households with greater stocks of productive assets and also exhibit a better repayment performance (Godquin, 2004). The duration of the loan has a positive impact on the size of the loan. Generally, in MFI is however, variation in the duration of the loan, from 12 months, up to 36 months. The coefficient of the age of the loan at the due date has a positive and important coefficient. Indeed, this is more suitable for group loan and expected that the social ties and other advantages of the group, such as integrating information, enhance with the age of the group (Godquin, 2004), however from repayment perspective age of the group reduce repayment performance. Godquin (2004) suggests, if MFIs devote larger loan to group members with whom they have an established relationship, they should also expand particular incentives for their experienced clients to have a greater repayment performance.

Likewise, from age perspective(same-age) group homogeneity has a positive influence on loan size, but from education perspective group homogeneity (same-education)has negative influence on the size of the loan (Godquin, 2004). As a general methodological rule group homogeneity is often applied for group formation in huge number of microfinance program (Rahman, 1999). Approach to both of the nonfinancial services (primary health, NFSH and basic literacy, NFSL) has a positive impact on the size of loan (Godquin, 2004). Access to these services might indeed enhance the client's competences and thus escalate the contingency of success. The value of the previous loan history has intensively positive influenced on the loan size and loan cycle. MFIs might increase the size of loan for good borrowers, provided that, if the clients have a better performance from repayment perspective during the previous loan cycle. This implies that by extending cycle of the loan the size of the loan spontaneously increases (Godquin, 2004). Godquin (2004) also suggests that MFIs apply variety of loan size ranges for a given loan cycle depending on the location of the clients in a municipality, a semi-rural or a remote area. Therefore, the size of the previous loan merges this information.

Since MFIs are more likely to enhance consistently the size of the loan with the loan cycle, thus this may believe that increasing loan size is depending on the cycle of loan. This

implies that, MFIs would extend the contract of good borrowers to obtain second or third … cycle of loan; hence, the size of loan spontaneously increases.

Consequently, there is a non-breakable link between size of loan and loan cycles, because increasing loan cycle impact positively on the size of loan and enhancing size of loan influence significant positively on the repayment rate performance.

2.3 Interest Rates and Repayment Rates

This section focuses on the loan interest rates by answering the sub-research question: "Does interest charge impact on loan repayment rate performance?"

Through the literature review, it is believed that interest rates are often examined in order to measure risk of default. Pereira and Mourao, (2012) suggested that increasing interest rates can reduce repayment rate performance and produce a higher number of default cases. The prosperity of microfinance institutions mainly depend on the efficiency of their credit management systems, since most of these institutions generate their income from interest obtained on loan extended to small and medium entrepreneurs. Interest rate is a significant aspect, which demonstrates the financial performance of likely most institutions, which are financial oriented. This aspect plays a key role inside microfinance institutions, and based on the interest rate MFIs demonstrate a higher or lower performance. Several studies indicated the effectiveness of interest rates on MFIs. Higher interest rates or amount of money which charged on the loan had a negative impact on the performance of the loan repayment, the higher the interest rate the lower the loan repayment performance (Moti *at al.*, 2012). In addition, some other authors argue that the interest rate is depending on the size of loan; however size of loan is also depending on the cycle or age of loan. As loan age become older or loan cycles increase, the size of the loan enhance spontaneously, thus the interest rate also increases. By extending cycle of the loan the size of the loan automatically increases (Godquin, 2004).

As resulting, our findings show that the higher interest rates in the first cycle of loan impact negatively on the repayment rate performances.

2.4 Gender and Repayment Rates

This sections focuses on the gender and impact of this aspect on repayment rate by answering the sub-research question: "To what extend gender influence on repayment rate performance?"

Based on our sub-research question, we found that a wide range of literature argued that gender has impact on performance of MFIs in terms of repayment. Furthermore, the basic goal of MFI is to improve the economic situation of poor entrepreneurs and provide them with variety of financial services. These poor entrepreneurs are including male and female borrowers. Men and women have been targeted by MFIs at the initial stage and this implies that MFIs had no bias between male and female clients.

According to a report from Armendariz and Morduch (2005), in the early phase of the Grameen Bank entailed men among its borrowers, however after a while women have been shown greater performance than the men from repayments perspective, so the bank decided to switch to a nearly entirely female clientele, due to repayment problems with men. Additionally, 81% women and 74% men are clients of MFIs in Bangladesh, but women had

no repayment problems, compared with men (Hossain, 1988). Furthermore, 15.3% of Grameen's male client had past due, compared with solely 1.3% of the female (Khandker et al., 1995). Moreover, Sharma and Zeller (1997) argue that in Bangladesh group lending with higher percentage of women had significantly greater repayment rates. This is not only in Bangladesh and similarly we found significant studies about gender effect on repayment rate from other developing countries. Here we addressed from Malawi, Hulme (1991) suggests that women had better repayment than men, such as 92% of female clients had no overdue compared with 83% of men. Also, Gibbons and Kasim (1990) report that in Malaysia 95% of female paid their loan on time, compared with 72% of the men. As well as, a study from Guatemala found that women groups lending had greater reimbursement history than men groups.

Women's involvement in MFIs recognized to be a key driver of MFI performance, since women had a greater performance from repayment perspective (Akula, 2008; Yunus, 1999). Boehe and Cruz (2013) argued that female membership in MFIs improve the MFIs performance through enhanced debt repayment. Some others believed that there is no black and white between male and female customers, since the empirical evidence is rather mixed, such as some study believe that women have a positive impact on the performance of MFIs from repayment point of view, (Boehe and Cruz, 2013; Hossain, 1988; Mersland and Strøm, 2010; Sharma and Zeller, 1997), others do not (Bhatt and Tang, 2002; Godquin, 2004; Wydick, 1999).

The more adverse a country's institutional conditions, the more positive would the influence of female clients on MFI performance through higher debt repayment be (Boehe and Cruz, 2013). This study suggests that repayment in turn, is considered as a predictor of MFI performance. Under all conditions the female membership has a positive effect on MFI performance, (Akula, 2008; Letelier *et al.*, 2003; Yunus, 1999, 2007). Women tend to be more dependence on MFI, since they are keener to honor their debts. Two dimensions determine that women have less opportunity to escape poverty, which makes them more dependent on microfinance (Boehe and Cruz, 2013). These dimensions are comprising limited access to education, and limited mobility. Women limited access to education, evidences on a data analyzing on a project in Senegal demonstrates that the educational system provides advantages to men that they are not interested in changing. Since limited access to education, women's economic activities are often limited to the informal economy. Education provides women to enhance their opportunities to work, obtain capabilities, become good entrepreneurs, perform their jobs better than those who are less educated, and particular emphasis on MFIs client, which education also has positive effect on debt repayment (Dolinsky *et al*., 1993; Robinson and Sexton, 1994).

Also limited mobility is a consequence of women's obligation to their families and societies, which prohibit their ability to take advantage of potential educational or professional opportunities elsewhere. Therefore, female entrepreneurs concentrate their business activities on their local communities.

In addition, female clients develop a set of capabilities, which distinguish them from male clients. These capabilities are including relationship capabilities and managerial capabilities. Relationship capabilities raise women's inclusion in societies and economic networks and thus their inclusion in economic life. Regarding managerial capabilities, women have stronger administrative rigor and concentrate on productive activities (Boehe and Cruz, 2013). Boehe and Cruz (2013) suggest that opportunities and capabilities interrelate to each other and they also are closely associated. This contributes to the MFI literature stream that

has examined women's stimulations for debt repayment (Boehe and Cruz, 2013; Armenda´riz and Morduch, 2007).

In conclusion, we found that several studies have argued that men tend to be more assertive risk-takers than women, who tend to be more anxious and risk-averse (Byrnes *et al.*, 1999; Feingold, 1994; Kring and Gordon, 1998; Lynn and Martin, 1997). "*These differences are attributed to parental and familial obligations* (Symons, 1979; Trivers, 1972), *particularly to women's commitment to family and childcare* (Campbell, 2002; MacDonald, 1995). Men are keener to be task-oriented behaviors whereas women keen to develop more relationship-oriented behaviors (Eagly and Karau, 1991).

In this section our findings show that women have significantly positive impact on the repayment rate performance than men. Thus it is believed that by increasing female borrowers may reduce past due of MFIs. Conversely, by increasing male borrowers may reduce repayment rate performance of MFIs.

Honoring loan contract from gender perspectives

This section aims to provide an overview of women and men performances in MFIs from honoring their loan contracts by emphasizing on repayment rate performance. By addressing this issue we need to focus on the literature review. We found that several studies believed that women may have better performance in MFIs.

Women are more conservative or cautious in their business strategies, and they invest in types of businesses that allow easier repayment, which is already experienced in Grameen villages in Bangladesh, thus women have higher repayment records, (Todd, 1996). Recently, in Brazil discovered the same result by Agier and Szafarz (2010). Women's investment often denoted by a quick turnover that is more worthwhile to the regular repayments required by most MFIs, (Johnson, 2004). Women attempt to repay their loan often with less overdue, since they have less credit opportunities than men, thus they effort to have a good history in their loan repayment record to ensure continued access to credit (Armendariz and Morduch, 2005). A presumption of these arguments is that the female are basically the ones controlling the loan. Kabeer (2001) suggests that in some cases women taken out the loan, used and controlled by the men within their households.

Likewise, relationship orientation steers women to expand their entrepreneurial activities to assure livelihood level of household income, they also have propensity to invest their earnings in house materials, such as clothing, food, and the human capital of their children (Kevane and Wydick, 2001). The preservation of family welfare becomes the priority and women make conscious and conservative investment choices. Hence, upcoming financial needs for child educating or bearing economic crises may motivate women to keep a good relationship with MFIs and avoid defaulting on their MFI debt (Boehe and Cruz, 2013). Due to their family and society obligations, women are oftentimes to be trapped in this vicious cycle. Since, they tend to be less able to relocate to towns, regions, or countries where they can find greater opportunities. Accordingly, microfinance programs with focus on alleviation of poverty provide one of the very few opportunities for female to build a better life. Since, women have no appeal in being deprived of these residual opportunities currently or in the future.

In fact that in this study we are not aiming to focus on who control the money, but we aim whether contacting with female lead to greater repayment rate performance or with men.

Accordingly, several studies argue that contracts with female are easier to control and execute, such as (Rahman, 2001., Goetz and Gupta, 1996) demonstrate that women are more easily impacted by peer pressure in credit group and more sensitive to the intermediation of credit officers. Moreover, often women tend to have close contact with the MFI and credit groups than men with a positive influence on repayment, since women have a less opportunities cost of time (Ameen, 2004). Furthermore, MFI can easily controlled female clients than man, since women prefer to invest most of their time stay closer to home rather than going out to work (Goetz and Gupta, 1996). Likewise, women are more risk averse than the men, therefore enhancing female clients effects directly on the performance of MFIs. Performance of MFIs is measured by the proportion of portfolios overdue by at least 30 days "*portfolio at risk"* and written off is the percentage of the loan portfolio because of non-repayment *"write-off ratio"*. Increasing proportions of female clients in MFIs have decrease portfolio at risk and reduce write-off rates (Mersland et al., 2011). Weak financial intermediaries for small debtors, individuals, households, or micro-enterprises in developing countries influence more positively on female participation in MFIs in terms of debt repayment rate. Although strong or specialized intermediaries would be beneficial to decrease transaction costs amongst economic agents and would boost business through rule-based exchanges, context characterized by institutional voids approach to drive people toward informal mechanisms, such as informal credit networks, to substitute for the lack of financial intermediation (Choi *et al.*, 2010; Lyles *et al.*, 2009; Peng, 2003). In addition, Boehe and Cruz, (2013) suggest that the country's domestic credit coverage moderates the influence of female clients on the MFI's overdue loan ratio. Specially, greater or poorer levels of domestic credit enhance or reduce the influence of female clients on the MFI's loan ratio.

Moreover; women tend to involve in family-oriented activities develop relationship based features as a reaction to social expectations (Eagly, 1987), thus, women would orient to increase their activities near to their families, which would affect to decreases their mobility. MFIs profit from the social network embeddedness that resulting from lesser mobility in three ways.

1. The access to information, which improve women entrepreneurial activities, consequence in more impressive credit screenings.
2. Working in or closer to home decreases monitoring and control costs and should thus decrease the incidence of strategic default, since *social sanctions and punishment* become more likely (Armenda´riz and Morduch, 2007).
3. Nearness to the home may help to enhance the density of ties and contribute to the growth of friendships among women within the society; which, in turn, aroused information exchange and *trust building* among lending partners (Kenis and Knoke, 2002; Okten and Osili, 2004). These approaches establish social barriers to debt default.

Furthermore, Boehe and Cruz (2013) suggested, when there are more female contributors, credit screening is more useful, and also the control, punishment, and trust building mechanisms strong networks decrease the inducements to default on debt. Armendariz and Morduch (2007) suggested that lower levels of debt default rates enhance MFI performance. Accordingly; in turn, (Mersland and Strom, 2010; Okten and Osili, 2004), suggest that the impact of female MFI participants on MFI performance is arbitrated by loan repayment, which in financial terminology is the reverse of the "*overdue loan ratio," defined as "outstanding loan overdue (one day or 90 days and more) divided by the total outstanding loan"* (DID Desjardins International Development, 2004, p. 27)

A rigorous study on a number of MFI-specific factors; as well as institutional factors, Mersland, et al. (2011) suggest that increasing percentage of female customers influence positively on the performance of MFI and significantly associated with *lower* portfolio risk and *fewer* portfolio write-offs. Moreover, MFIs with a higher proportion of female borrowers carry *fewer* provisions. In addition, evidence shows that a few studies are focusing on women, which considerably decrease MFIs' observed credit risk. Furthermore studies address that not all MFIs advantage to a parallel degree from targeting women. Likewise, who benefit greater from targeting on women are comprising of nongovernmental organizations (NGOs), individual-based lenders, and regulated MFIs.

Conversely, this implies not that all studies support female as a better credit risk. As Mersland et al., (2011) suggest that most of studies are based on anecdotal evidence or they are restricted in geographical and institutional scope warrants. This is a simple fact that women, on average, are poorer than their male peers should demonstrate that repayments are more troublesome. In addition, Philips and Bhatia (2007) argue that female entrepreneurs tended to be overrepresented in traditional sectors with fewer benefits, lower develop opportunities, horrible competition that should make them less able to honor their credit contracts.

As result of the preceding debates, the relation amongst gender and repayment rate remains unclear. Though, in line with common belief in the MFIs, to have a clear-cut vision about gender influence on repayment rate, it is believed that MFIs with focusing on female borrower may show better performance than male borrower from repayment rate perspective.

3. Methodology

The research design is based on qualitative research and builds on the principles of grounded theory. This in short means that it enables us to interact and constantly review our data and emerging concepts from the process of analysis. The analysis of the data is combined with the process of collection and is to an extent a continuous process. This also enabled us to get inspired in terms of possible directions and leads from emerging data and concepts, which we did not expect to acquire initially (Charmaz, 2003). This study is an exploration of the field of microfinance institutions repayment rate and provides valuable perspectives from literature study and data analyzing about MFIs. Qualitative research offers a great potential for exploration, as it provides very flexible means of analyzing and collecting the data, which became particularly practical when approaching respondents by email, phone communication and gathering the data within a time scope of the research, (Boeije, 2009). Furthermore, Boeije (2009) suggests that the nature of this qualitative research allows for offering perspectives and ideas that can be relatively easily taken as an inspiration for developing new policies and practices.

The research has been launched with extensive literature review and analyzing of the data from Afghanistan MFIs. By reviewing the literature, solid grounds on the current knowledge and theoretical concepts have been developed, which provided a specific direction for our further steps. An interview conducted in this research. Based upon the findings from the literature and the interview, we established that it is essential to be in touch with manager of MFIs in the Afghanistan that fulfill our criteria of successful MFIs with maximum repayment performance. The next step was to select a representative sample for conducting our study. Based on previous literature and online resources review, we purposively selected three MFIs for data collection and ten participants to conduct a telephone interview with which, given by the nature and extensity of the research, would provide good ground for generating valid knowledge. In the later process of data analysis we furthermore arranged another incentive interview with the manager of MFIs, since it was difficult to obtain data from MFIs database. We attempted to convince them and they provided us with fruitful data's.

The main 'method' used for data collection, given the nature and time-scope of the research, became desk research, telephone interviews and data analyzing. As suggest by Huberman and Miles (2002), that such a combination is a common practice and provides a better insight into the studied field. The research time scope was seven months, where most of the research was conducted from the Wageningen University campus over the data analysis and the phone as the nature of the desk research comprises extensive reviewing of online resources, literature review, email communication and swift telephone access with the research participants. In months one, two and three we worked merely on the literature review and data collection, at the premises of Wageningen University. Months three and four reserved for empirical study and literature study, which also took place mostly on the Wageningen University premises. Months four and five were dedicated to the data analysis, also from premises of Wageningen University, at the library of university, which enabled easy access to data, university resources. Months five and six were appropriated to the concluding analysis, also from premises of Wageningen University library. Months six and seven were assigned for the writing, finalizing, evaluation report, and presentation.

All telephone interviews were semi-structured interviews structured in such a way that the respondents would be steered into answering the main sub-research questions, which focused on type of loan, size of loan, interest rate and gender. The questions were designed

based on the conceptual framework and preliminary findings from the reviewed literature and online resources. This method provides the opportunity for improvisation in terms of steering the conversation to the points that would not be otherwise covered by a structured interview. In the comparison to the email communication, telephone conversation enables quicker access to the data, and therefore, in most cases email communication was only used to initiate the contact with the respondents. In comparison to face-to-face interviews, telephone interviews help to overcome the geographical distance, however, reduce the knowledge on social cues such as non-verbal communication, and therefore it is potentially easier to dig into topics that are not favorable to speak about on the phone (Opdenakker, 2006).

For data collection we prepared a unique method of incentive or win-win strategy. After that we had telephone and email contact with MFIs in the Afghanistan, whom responded us. We have selected two MFIs, which were The First Micro-Finance Bank-Afghanistan and OXUS-Afghanistan. We aimed to have access on their databases for evaluation and analyzing data. At the beginning it was quite tough, since no MFIs are willing to share their privacy and secrete data with us. We attempted to convince them by implementing incentive strategy e.g. we promised for the MFIs, when we are done with our research, we provide you with a copy of our research, which would be including a good recommendation. Indeed, this was promised solely for those MFIs which shared their data with us. As Boeije (2009) suggests, preparation of the data for analysis is very important as it is easier to access it when needed to retrieve it. Throughout the process of collecting the data we established an organized archive using Google drive, where we gathered our notes, memos and other obtained materials such as literature, MFIs data, and online resources. We have taken into account, that this research is more depending on data analysis and literature review, therefore, de decided to avoid deeply transcribing the interviews.

The initial review of online resources, literature, and data evaluation has brought us to segment our finding into effect of type of loan, size of loan, interest rate and gender on repayment of MFIs. Type of loan, size of loan, age of loan, durations of loan, interest rates, and gender; have been emerging from our preliminary meeting with the thesis advisor as well as from the resources we investigated. This later on became of great use for analysis of the data from the Afghanistan MFIs we gathered, where specific fragments were coded under each category. Moreover, the nature of semi-structured interviews often does not guarantee an order of answers as may have been previously planned, and therefore, segmenting our findings in type of loan, size of loan, interest rate and gender enabled us with access to our findings throughout the process.

Boeije (2009) suggests that after the initial coding has been done selective coding could be a logical step after segmenting the data using open coding. Selective coding is comprised of searching for patterns that unfolded from our theoretical framework, such a group lending, individual lending, and size of loan and is often referred to as reassembling. For each previously created category we selectively created codes that either emerged from our findings or theoretical framework.

For ethical consideration we have taken into account the importance of informed consent, when operating with the acquired data. We stressed out that participation is voluntary and that the participant has the right to withdraw from our research at any point. Furthermore, to ensure transparency of our research, we created a list of participants to whom we offered to send our report to upon completion.

4. Empirical Research

This chapter contains the empirical research. First research strategy will be described in paragraph 4.1. Paragraph 4.2 describes the data collection procedure. In paragraph 4.3 the results of our empirical research will be investigated. This paragraph 4.3 will define all aspects of type of loan that we found in our data gathering and analysing. Moreover, this paragraph will be focused on the size of loan and the influence of this concept on the repayment rate. Furthermore, interest rate will be also explained in this paragraph and show that how this concept impact on the rate of repayment. Respectively, gender and effect of gender on the repayment rate will be described at the end of this paragraph as well.

4.1 Research Strategy

An empirical research will be conducted to answer the sub-questions and main research question. The empirical research is focused on the type of loan, size of loan, interest rate and gender repayment rate in Afghanistan MFIs in general.

4.2 Data collection procedure

We will use two approaches to gather our data from Afghanistan microfinance institutions (MFIs).

Firstly, we will target six MFIs in Afghanistan, which are the largest MFIs, in terms of outreach and sustainability. These MFIs include, The First Microfinance Bank (FMFB), OXUS-Afghanistan, FINCA-Afghanistan, Islamic Investment and Finance Cooperatives (IIFC) Group, Afghanistan Women Council (AWC), and MUTAHID Development Finance Institution Afghanistan.

Based on our general research question "*What are the determinants of MFI loan repayment rates in Afghanistan?*" we will attempt to gather our data from real databases of above-mentioned MFIs. We aim to collect data from more than one MFIs databases to compare their data, in terms of repayment rate performance. Likewise, we will contact above-mentioned Afghanistan MFIs by e-mail, Skype and telephone and we will ask them to share with us a copy or backup of their databases. Furthermore; we are very eager to have Skype and telephone contact with them, since a live contact may help us to communicate smoothly, and will influence positively on Afghanistan MFIs, and we might be able to convince them to help us in this research by sharing their data and answering our questions.

Secondly, we will structure a list of questionnaire and conduct interview with loan officers, credit controllers, branch manager at the office, and borrowers in the field of work. Conducting this interview will help us further with our empirical research.

Respectively, we have contacted by email and telephone six above-mentioned MFIs in Afghanistan, but we have received answer only from "OXUS-Afghanistan and the First Microfinance Bank Afghanistan". Accordingly, we had several times re-sent email and re-called the rest four above-mentioned MFIs to communicate with them, but they did not reply our e-mails and did not answer our telephone. consequently, when we assured that only the OXUS-A and the FMFB-A will help us in this research, not the rest of Afghanistan MFIs, than we have been keeping our contact with OXUS-A and FMFB-A. During our further telephone and email contacts with OXUS-A and FMFB-A, we effort to convince them to help

us further in this research and they did promise to help us further concerning this research. Thus, OUXS-A and FMFB-A provided us with huge number of data, which is including two thousand (2,000) clients from their original databases. Furthermore, OXUS-A and FMFB-A will help us further to have easily contact with their loan officers, credit controllers, branch managers at the offices, as well as borrowers in the field of work, in order to get precise answer for our questions.

In this part of paper we prefer to give a brief introduction regarding OXUS-Afghanistan and FMFB-Afghanistan.

OXUS-A launched operation in 2007 with an initial fund from Microfinance Investment Support Facility for Afghanistan (MISFA). OXUS-A was able to build on ACTED's experience and past programmes in the country, in particular a micro-loan initiative to provide farmers with seeds and tools for sowing (OXUS-network, August 2016). As of September 2016, OXUS-A operates within 19 branches across the country and in terms of portfolio provider ranked fourth microfinance in Afghanistan. OXUS Afghanistan has gross loan portfolio 11,186,458EUR and 2, 7 percent portfolio at risk (PAR) more than 30 days. Respectively, OXUS Afghanistan has 21,385 active borrowers and 406 staff (AMA, September 2016).

OXUS Afghanistan provides various type of loan products, such as collateral-free group loan product, individual loan product, social loan product, small and medium enterprise loan product, staff and salary loan products, Zahra/agriculture Murabeha, and gold back loan product. Currently, two thirds of small credit group's loans were disbursed by OXUS in Afghanistan. Likewise, individual business loans are other successful products of OXUS Afghanistan, since OXUS customers often work in trade or commerce services the higher degree of flexibility provided by small credit group's loans and individual business loans products. Accordingly, at present most borrowers of OXUS Afghanistan are shopkeepers or small traders (88%), respectively, (8%) handicraft and (4%) working in agricultural (OXUS-network, August 2016).

Subsequently, this part of paper will provide a brief introduction about The First Microfinance Bank (FMFB). The First Microfinance Bank Afghanistan (FMFB-A) is part of the Aga Khan Agency for Microfinance (AKAM), which has throughout the world programmes in over 15 countries. In 2004, FMFB established in Afghanistan based on two microfinance programmes in the country, the Emergency Microcredit Programme and the Rural Microcredit Programme, and this bank has also a commercial banking license. The Emergency Microcredit Programme provide a financial safety net for retunes by offering credit for start-up, restarts and expansion of income generating activates in Afghanistan. The main objective of FMFB in Afghanistan is to contribute to poverty alleviation and economic development though the provision of sustainable financial services to the poor and underserved.

The FMFB-A provides variety of loan products for their customers, such as deposits, loans, remittances, and other services. Deposits products include, current account, saving account and term deposit account. Respectively, loans products entails, group loan (agriculture/livestock), group loan (women), small business loan, housing improvement loan (urban), housing improvement loan (rural), agriculture/Livestock loan (seasonal), agriculture/livestock loan (grace period), personal loan, SME term loan, SME over draft facility, and payroll service. Likewise, remittances products focus on transfer and receive funds by SWIFT through a network of FMFB correspondent banks to most parts of the world,

and receive and transfer also funds locally like any other commercial bank in Afghanistan. Furthermore, other services comprises as Cheque collection, foreign currency exchange services, and processing Bulk Payroll.

Outreach of FMFB-A will be explained as follow; this bank has 38 branches across Afghanistan within 54,655 active borrowers, and 114,465 number of depositors. Furthermore, FMFB-A has 54271.82EUR deposits, and respectively, FMFB has Gross Loan Portfolio 52,223,942EUR. FMFB-A provides loans in urban and rural areas and 59 percent of their activities focus on the urban and 41 percent in the rural areas in Afghanistan. FMFB-A focused often on men than the women, because 83 percent of its borrowers is men and 17 percent women, in general. In terms of employee, FMFB-A has 1,256 staff in Afghanistan. Accordingly, FMFB-A is the most successful and creative MFI amongst other MFIs in Afghanistan.

In order, to provide a comprehensive insight regarding determinants of repayment rates, all data will be gathered and analyzed based on, size of loans, cycle of loans, interest rates, and gender. For the purposes of this analysis, a customer's account will be deemed delinquent if it would be classifying as past due or would be declaring in default by concerned institution. Moreover, the OXUS and the FMFB-A that we will gather our data consider a loan past due, if a period of four weeks or more has elapsed after the loan's due date. The loan will be considered in default if it is eight or more weeks past its due date or if at least 48 weeks has elapsed after the first payment and the client will yet to settle the entire obligation. The maximum amount of time given to loan to pay up will be typically depending on the duration of loan, since the OXUS and the FMFB-A will have different duration of loan contracts, such as 12 months; 18 months, and 24 months. For example: if duration of loan is for 12 months than the maximum amount of time given to loan to pay up is typically 40 weeks and customers will be generally expected to make the same payment at each interval. Therefore; the two delinquency measures given above exclude customers who are taking long to repay not, since they are defaulting, but because may the interest rate will be high and they might need a longer period than the 40 weeks to fully settle their obligations to the MFI. In this research we will be applying the actual data, which kept by OXUS and FMFB-A database on defaulted and past due accounts.

4.3 Results

This section will be focused on the result of our research based on the empirical data that we have gathered from Afghanistan MFIs.

Type of loan and repayment rates

Based on our empirical research, this section describes the types of loan by answering the first sub-research question: "To what extend types of loan have impact on repayment rate performance?"

Figure 1 displays the summary of types of loan within two MFIs in Afghanistan, such as OXUS-A and FMFB-A. In general, our empirical researches show that OXUS-A and FMFB-A provide six types of loans. These types of loans comprise as individual loan, agriculture loan, housing loan, and Islamic loan, agriculture livestock loan, and staff loan, behalf group loan. In 2002, when MFIs for the first time launched in Afghanistan, initially they focused on group loan, but after a while this product showed very less performances, thus group loan is not anymore exist in Afghanistan MFIs.

Accordingly, we found that most Afghanistan MFIs focus on individual loan, thus 53% of loan disbursed as individual loan. This implies that 47% of loan products dedicated for other types of loan. Likewise, housing loan is in the second position of greatest performances loan products in Afghanistan within 32%. This is important to mention that housing loan product is entirely new in microfinance market. Currently, housing loan products implement only by The First Micro-Finance Bank in Afghanistan. In addition, from literature perspective we were not able to find any research or study about housing loan. Thus, in this research we have solely focused on our collected data regarding this product, since it is the most productive product in Afghanistan MFIs comparing to other loan products. Subsequently, agriculture livestock loan product is in the third position amongst Afghanistan MFIs. Respectively, figure 1 shows that agriculture livestock loan product covered 8% of microfinance market. This product often focused on the formers and MFIs aimed to improve the situation of animal lives by given this loan product for formers in rural areas.

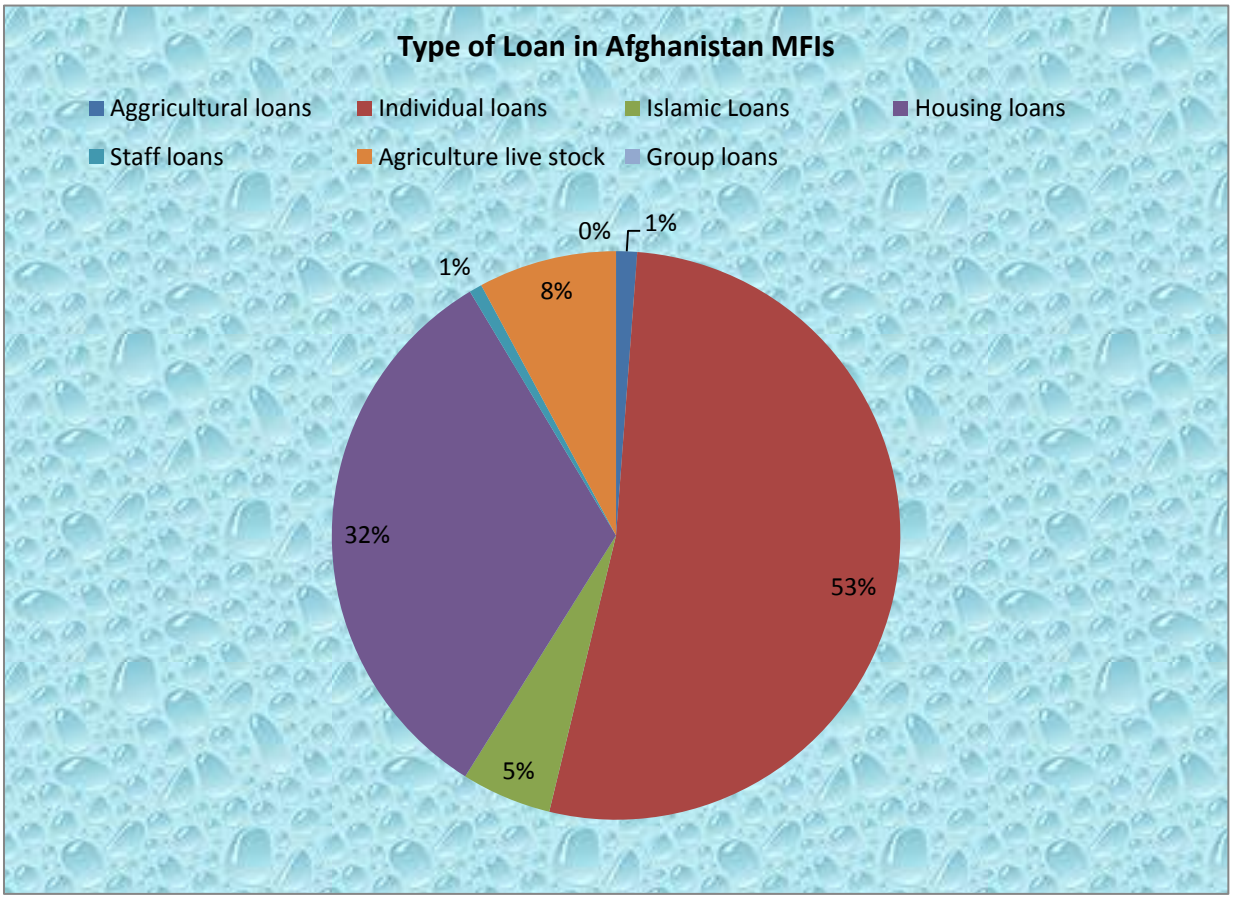

Figure 1: Type of loan in Afghanistan MFIs

Furthermore, Islamic loan products covered 5% of microfinance market's Afghanistan, however this product also is new for MFIs, but it shows better performances. Accordingly, figure 1 displays that agricultural loan product covered microfinance market within 1% and this product focused only on forming. Afghanistan MFIs aim to develop the situation of forms by offering this product and make agriculture products more productive. As we already mentioned and also figure 1 exhibited that group loan disbursement is zero in Afghanistan MFIs. Since housing loan products and Islamic loan products are new for MFIs not only in Afghanistan, but world widely. Thus we attempt to elaborate these two products in the following sections.

Housing loan

Housing loan is entirely new product for MFIs across the world and for the first time this product initiated and experienced by the First Microfinance Bank in Afghanistan. Despite the considerable demand for housing loan, non-of the Afghans MFIs had dared to enter the market. In 2008, the management of FMFB-A considered the implementation of housing microfinance products with respect to the following situations which explains in Table 2.

Table 1: Incentives and Obstacles of HMF in Afghanistan

Incentives	Obstacles
Considerable demand for housing arising from increasing urbanization and a young, growing population	Weak legal and regulatory framework (especially in the areas of land administration and registration, and enforcement of liens)
Somewhat stabilized and growing economy	High cost of construction material; limited capacity in the construction industry
Significant potential demand for home improvement and incremental construction	Continued violence and insecurity in certain areas of the country
Better understanding of financial needs of low income earners at MFIs	Lack of longer-term funds in local currency

To launch with HMF products successfully, FMFB-A needed to develop a thorough understanding of the demand for housing finance products. Management of FMFB-A conducted a comprehensive market evaluation to recognize the potential and effective demand (ifc.org, 2016).

Furthermore, effective demand for housing loan products consider being existed if the following requirements are met:

1. Requirement for habitat improvements, elevating, increasing building … etc. in the societies where the targeted population lives (i.e. potential demand).
2. Potential borrowers show the enthusiasm to borrow to supplement these improvements and they can provide the loan (i.e. effective demand).
3. Appropriate adequacy between staff members to progress HMF loan.
4. Effective guarantee mechanisms to restrict risk.
5. Lending methodologies and policies designed for high-risk areas.
6. Cost effective approach to achieve rural customers.

For a greater performance FMFB-A considered all above features before venturing into the housing finance space (ifc.org, 2016).

Requirement for Housing loan

Housing improvement loan is an innovation into microfinance sector, which was launched by FMFB-A, and experienced for the first time in Afghanistan. Since, this is entirely new product for all MFIs in Afghanistan as well as for other MFIs across the world, thus we were not able in this domain to come up with literatures or academic evidences. We provide this information from FMFB-A and IFC websites and few reports about housing loan. In the

Table3 we have depicted all condition and requirement of housing loan, which expected by FMFB-A.

Table 2: Requirements of HMF loan in Afghanistan

Type	Housing loan (Tameer)
Currency	USD / AFA
Minimum Amount	200 dollars / AFA 14,000
Maximum Amount first cycle	10,000 dollars / AFA 700,000
Admin Fee	1 % of Disbursed Amount
Maximum increment for loan renewal	Subsequent loan, based on project requirement loan depending on repayment capacity, cost of improvement and collateral.
Possibility to have two outstanding loan for a customer	Yes, but the sum of the two loan amounts should not exceed 10,000 USD/ AFA 700,000 The debt ratio and repayment capacity of combined debts should stay within FMFB acceptable limits
Maximum loan size as a percentage of property value	The loan amount may not exceed forty (40) percent of the appraised value of the home after project completion
Maximum loan size as a percentage of project cost	The loan amount may not exceed 70% of the estimated project cost borrowers contribution may only be in the form of cash or kind (sweat equity)
Minimum duration	6 months
Maximum duration	36 months
Instalments	Monthly and Seasonal
Max. Grace Period per annum (months)	Rural:Seasonal:1-6 Regular (Salaried): 1-3 Urban: 1-3
Interest Rate (Declining)	25%
Interest Rate (Flat)	14%
Saving	Voluntary
Security	Third party guaranty
Collateral	For Loan below USD 1000 only third party guarantees and above USD 1000 Title Deed (House, Business, land, commercial building etc.) + Third Party Guarantee
Purpose of Loan	Incremental and new house construction, rebuilding after disasters, renovations and/or expansion of structures, and connection to domestic utilities like water and electricity; septic tanks/wells; construction of boundary walls, windows, kitchen, toilets, tube well etc.
Eligibility	Valid National (NID) Card Age between 18-65 years Positive loan history with FMFB

Demand for Housing

In terms of housing microfinance (HMF), FMFB-A had a detailed assessment in Afghanistan, since Afghanistan also is one of the countries, which struggle with the poor and poverty. Indeed, this country is a post- conflict society and it has passed experience of more than three decades of civil war. Moreover, during three decades war most infrastructures of this country was demolished e.g. economy, and most Afghans people left their country and emigrated in other countries, such as Iran, Pakistan and European countries. At the end of 2001 a new government has been established, and ended with a long civil war, and formed a new government in Afghanistan with supporting of United Nation; which, paved the way for new development initiative from within and outside the country. This situation looks like that the housing market was characterized by large unmet demand until 2008, a harshly demolished housing stock, few new affordable housing developments and, consequently, a huge growth of unauthorized settlements. Below Table 3 provides us with a few essential data on the housing and housing finance sectors in Afghanistan in 2008 (ifc.org, 2016).

Table 3: Essential Data on Housing Finance 2008 (ifc.org, 2016)

Number of people living in urban areas (percent of total)	23 percent (2008)
Housing deficit	1 million units (2006); 1.5 million units (2014)
Mortgages/ Gross Domestic Product (GDP)	<1 percent

Figure 2: Developing housing by FMFB-A and HMF

Demand for Housing loan in Afghanistan

Since 2001, by forming a new government in Afghanistan this country had experienced a steep growth in its population and often the rise had happened in urban areas. Likelihood, 23 percent of the Afghan population lived in urban areas (5). This growth of population and rapid urbanization established huge demand for housing in whole and particularly in urban areas. Most of people were migrated outside of Afghanistan, when they return to their country most of them habitat in the urban areas. For example: in Kabul (Capital of Afghanistan), where an estimated 700,000 returnees had settled since 2001(6). Likewise, the population grew by 15 percent a year between 1999 and 2002 and this would continue to grow by at least 5 percent a year as a consequence of migration and natural growth(7).

The comparatively high percentage of young people also created a high demand for housing. Furthermore, with the youngest population around the world "an estimated 57 percent under the age of 18(8)" the demand for housing was anticipated to enhance, subsequently as these young people began to seek jobs and start families in cities.

The return of refugees back to Afghanistan particularly from neighborhood countries accelerated the housing problem in the urban cities.

Consequently, a World Bank evaluation in Kabul demonstrated the informal settlements provided shelter for 80 percent of the city's population (2.44 million people), which covered 69 percent of its residential land, and with the land value excluded, demonstrated fixed private capital investment of $2.5 billion.(10)

Impact of Housing loan on women

This section provides impact of housing loan on women, since this is a new product and initiated for the first time by FMFB in Afghanistan. Indeed, however, Afghanistan is a country with a patriarchal culture, this implies that men are typically the legal holder of the property, and more likely access to finance restrict for women, especially in occasions, where lenders required property as collateral. Furthermore, in terms of housing loan requirement, for loan below USD $1,000 only third party guarantees is required and above USD $1,000 Title Deed, such as house, business, land, commercial building etc. + Third Party Guarantee is needed (FMFB-A, website, 2017).

Moreover, despite the huge need for housing, only a few new housing developments were under way. Housing initiatives were subsidized through free land distribution and were not allocated at those whom essentially needed housing support most. Instead, housing was dedicated at middle-class residents with high incomes, such as businesses or salaried employment. The price of housing was further exacerbated by costly important materials, unskilled labor, and a lack of low-income housing developers.

In addition, a deficient functioning and inappropriate legal and regulatory regime had hindered financial institutions from entering the housing finance market. Given the lack of bankable titles and an efficient land administration, lenders faced difficulties in registering mortgages. Women have struggled in obtaining ownership of or title to property. The best approach for a woman acquires home ownership was through inheritance. Since, Afghanistan has a patriarchal culture; hence men were typically the legal holder of the property, so access to finance was restricted for women, particularly in conditions, where lenders required property as collateral.

Therefore, women should have less access for housing loan than men, especially when the amount of loan is increased than USD $1,000. Likewise, considering our empirical research from FMFB-A, we found that there is gender biased between male and female borrowers**.** Figure 4 demonstrates housing loan impact among male and female borrower in Afghanistan. This figure 4 is result of our empirical research. In our data analyzing we found that FMFB in Afghanistan provides more housing loan for man than women. We also found in our data analyzing that most Afghans female borrowers worked with their spouse, such as their husband or their sons. Therefore, when women apply for loan their spouse provide them with required property as collateral by lenders.

In following chapter we would evaluate Afghanistan microfinance data and a wide range of literatures, which argued mostly about the individual lending versus group lending. Data is collected from Afghanistan MFIs database and literatures are provided with concrete evidence and complex argumentations about two lending program. Here in the below we depicted a few of these complex argumentations with prefer lending program for Afghanistan MFIs.

Islamic microfinance program in Afghanistan

The Islamic microfinance program in Afghanistan for first time was provided by FINCA-Afghanistan, expanded launching in 2003, and implemented in 2004. This initiative product at the beginning applied a murabaha approved by Islamic scholars at Al Azhar University in Egypt, which was not extensively admitted inside Afghanistan and was mispriced. Since murabaha loan could not cover costs and disheartened smaller borrowers (Goud, 2013). Goud (2013) mentioned that according to Paul and Nimrah (2008) this compelled FINCA to improve three *murahaha* based products in consultation with Islamic scholars inside Afghanistan, which were began in July 2006.

The three products that FINCA-Afghanistan redeveloped are as following:

1. Women's Murabaha Group.
2. Market Murabaha Group.
3. Business Murabaha Agreement. (see table 1)

These three new products introduced in the market as one individual loan product and two group loan products. Moreover, FINCA-Afghanistan provided extra financing value for their customers, such as market oriented skills training and business development support from the International Rescue Committee (Hussein, 2009).

FINCA's borrower base increased rapidly from 2004 to 2008, but sharply decreased after 2008 due to deterioration of security situations, business losses, and inflation, something that was extensively across the microfinance sector in Afghanistan. Accordingly, there were a huge number of borrower dropouts across the MFIs in Afghanistan, though roughly half were from FINCA. Concerning high past due the management of FINCA-Afghanistan applied a new procedure for controlling from more risk and past dues. FINCA has stopped disbursing for the borrowers who had delinquency in their previous loan contracts, thus many of the client dropouts seen by FINCA were a consequence of FINCA's decision to stop disbursing loan (Goud, 2013).Likewise, FINCA wrote off a substantial portion of its microfinance portfolio from 2008 to 2010. As resulting, a significant drop off in number of borrowers and also in the outstanding loan portfolio, from a peak of $11.8 million in 2007 to $1.7 million in

2010. Respectively, the total number of borrowers dropped with the reduction in the loan portfolio from 63,571 in 2007 to 10,697 in 2010.

Table 4: FINCA Afghanistan Products Details

Product	Group Size	Average Loan Size	Financing Cost (% per month)	Initial Loan Cycle	Subsequent Loan Cycle
Women's Murabaha Group	10+	$250	2-3%	6-9 months	12 months
Market Murabaha Group	3 up to 40	$400	2-30%	5 months	6-10 months
Business Murabaha Agreement	Individual	$1,000	2%	6-9 months	6-12 months (2nd) up to 18 months

Source: Paul Robinson and Nimrah Karim.2008. FINCA's experienced in Afghanistan. Presentation made at the international Islamic finance Forum, Dubai, UAE, April 13-17-2008; and FINCA audited financial statements (2010).

Though the portfolio has contracted considerably since the peak in 2007, its quality is starting to improve. In 2009, FINCA had a total amount of the $3.6 million loan portfolio and $104 million (40 percent) were portfolio at risk, and of the 33,289 borrowers, 20,609 (62 percent) were past due. Respectively in 2010, 4,429 borrowers out of 10,697 (41 percent) were past due, and amounting to $0.3 million (19 percent) of the $1.7 million portfolio were portfolio at risk. In 2010, USAID has stopped directly funding for FINCA, although FINCA still obtained funds both from its parent organization FINCA International and MISFA (Goud, 2013).

Size of loan, age or cycle of loan, and repayment rates

This section will be focused on the loan cycle and loan size by answering the sub-research question 2: “To what extends size of loan and age or cycle of loan effect on loan repayment rate performance?”

Size of loan plays significant role for performance of Afghanistan MFIs. Our findings demonstrate that Afghanistan MFIs disbursed different amount of loan for their borrower. Figure 2 displays the summery of size of loan from Afghanistan MFIs and we found that the higher amount of loan which disbursed is 300,000 Afghani Rope that is equal to $4,615 USD dollar. In contrast, the lowest amount of loan which disbursed is 10,000 Afghani Rope that is equal to $153 USD dollar. Our calculation show that the average amount of loan is 100,259 Afghani that is equal to $1,542 USD dollar.

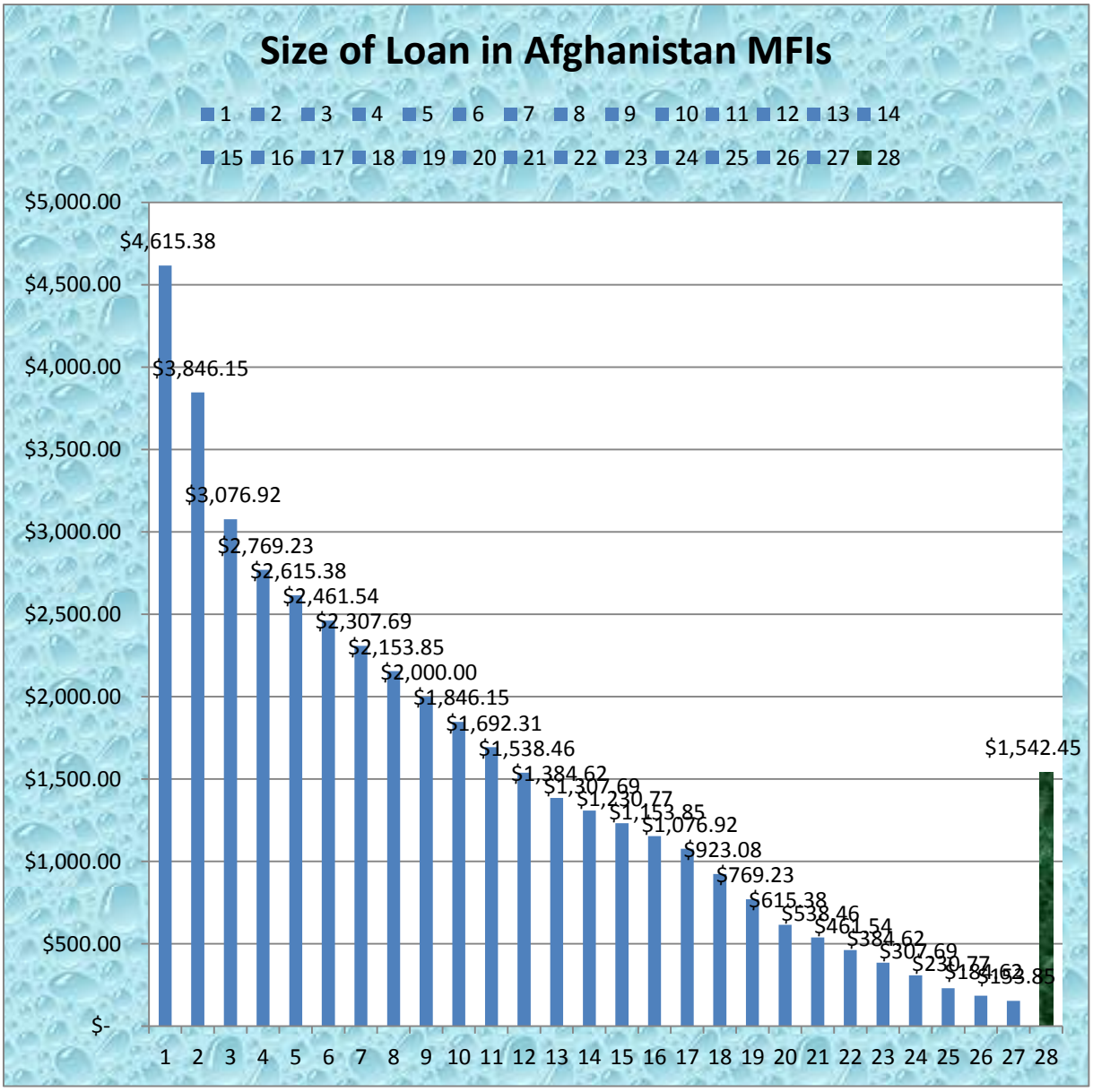

Figure 3: Size of loan in Afghanistan MFIs

Furthermore, amongst 2,000 clients that we have investigated from Afghanistan MFIs we found that those clients are with a lower amount of loan have better repayment rate than those clients with a higher amount of loan. Accordingly, we argue that lower amount of loan has better performance from repayment rate perspective than higher amount of loan.

Respectively, our experimental researches demonstrate that Afghanistan MFIs have variety of loan cycles. The loan cycles comprise first cycle of loan, second cycle of loan, third cycle of loan, and etc. Moreover, our findings from loan cycle perspective exhibit that customers with higher cycle of loan have better repayment rate performances comparing to the first cycle of loan. Better repayment rate in the higher cycle of loan would be that borrowers will be more trained by increasing cycle of loan and they would know better about policy and procedure of loan and repayment of loan. According to an interview with a manager of FMFB-A (01-Jan-2017), he said that borrowers with a higher cycle of loan often have a better record in MFIs from repayment rate perspective; therefor MFIs attempt to keep

good borrowers. Ahmadi emphasized that if borrowers have better performance and repayment rate record than the loan committee will approve his/her loan request for next cycle of loan, conversely if clients have less performance in terms of repayment rate than loan committee will reject their loan requests.

Accordingly, we argue that increasing cycle or age of loan is increasing repayment rate or borrowers with higher cycle of loan have better performance than borrowers with lower cycle of loan, thus cycle of loan effect positively on the repayment rate performance.

Interest rates and repayment rates

This section focuses on the interest rate by answering the sub-research question 3: "Does interest charge impact on loan repayment rate performance?"

Interest rate is one of the dummy variables of repayment rate and this aspect has a vital role into MFI. Often increasing or decreasing of interest rate is depending on the amount and duration of loan for instance; when the duration of loan is longer, than interest rate increase systematically.

In general, we found that Afghanistan MFIs charge per years 15% interest charge on the amount disbursement loan. According to our empirical research; we found that increasing interest charge decrease repayment rates performances, since borrowers are not able to pay a high amount of interest charge. We found another variable which increase interest rates, this variable is duration of loan. For instance, we have compared two loan with the same amount of money with different duration of loan. One loan was disbursed for one year and its interest charge is 15%, the same time other loan was disbursed for two years and its interest charge is 33.5%. We found also that Afghanistan MFIs have monthly repayment schedule and most of their loan are between one and two years. Basically, if a loan is scheduled for one year than MFIs charge 15% interest, if the loan is scheduled for more than one year than percentage of interest increase spontaneously.

Consequently, our findings demonstrate that increasing interest rate influence negatively on the performance of repayment rate.

Gender and repayment rates

This paragraph aims on the gender and impact of gender on the repayment rates performances by answering the sub-research question 4: "To what extend gender influences on repayment rate performance?" To answer this question we provide an empirical research by focusing on collected data from Afghanistan MFIs.

Figure 4 displays the summary of male and female borrowers in Afghanistan MFIs. Our researches demonstrate that most Afghanistan MFIs focus on male borrower than female. MFIs with more individual loan products would focus more on male than female according to our literature studies. Our empirical research based on data that we have gathered from Afghanistan MFIs entails 2,000 borrowers. Moreover, we found that most borrowers are male, for instance 81% of Afghanistan MFIs covered male borrowers in contrast 19% female.

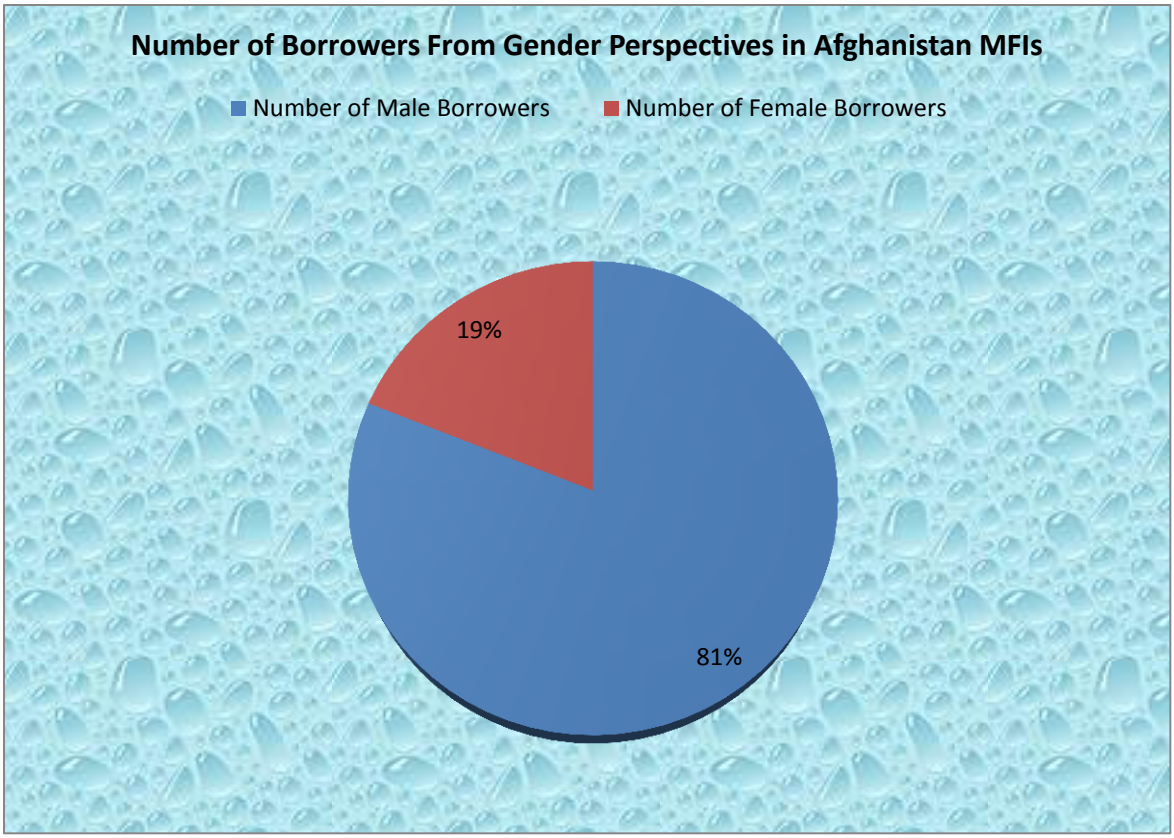

Figure 4: Percentage of male and female clients in Afghanistan MFIs

In addition, Figure 5 exhibits the summary of amount of disbursed loan from gender perspectives in Afghanistan MFIs. In this research we found also that higher amount of loan disbursed for male borrowers comparing to the female borrowers. For a higher amount of loan MFIs need more valuable collaterals, thus in a country like Afghanistan with a paternalism culture male borrowers are more able to prepare more valuable collaterals comparing to female borrower. Because of that the higher amount of loan are dedicated for male than female borrowers.

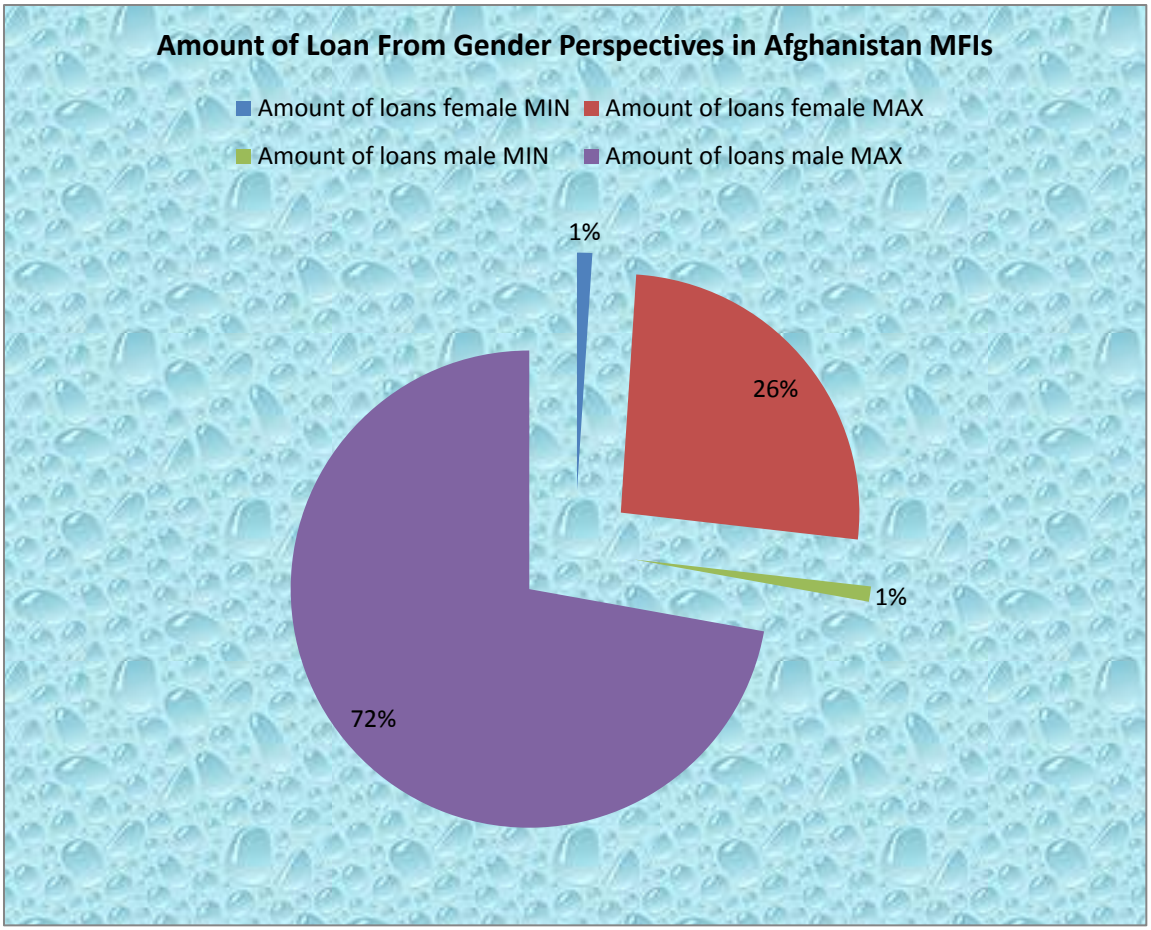

Figure 5: Amount of loan from gender perspective in Afghanistan MFIs

As resulting, our empirical researches based on individual loan amongst Afghanistan MFIs demonstrate that male and female borrowers have approximately the same repayment rate performances.

5. Conclusion

This research has been conducted to find effect of type of loan, size of loan, interest rate and gender on repayment rate and the influence of these factors on the performance of microfinance institutions in Afghanistan. According to our empirical research, we found that type of loan, size of loan, interest rate and gender influence on the performance of repayment rate. We referred to the definition of each factors of repayment rate and similar concepts to approach type of loan, size of loan, interest rate and gender. Our results provide an overview of successful repayment rate perspectives that significantly positively (negatively) increase (decrease) repayment rate of Afghanistan MFIs.

Starting from type of loan perspectives of Afghanistan MFIs, most of our results are based on what types of loan are currently used within Afghanistan MFIs and how successful they are. This included individual loan, housing loan, agricultural+ Livestock loan, and Islamic loan. In our empirical studies, we found that all above mentioned type of loan are as kind individual loan with different approach and procedures. Likewise, housing loan is entirely new product for MFIs in Afghanistan as well as across the world microfinance family. Housing loan shows the greater performances in terms of repayment rate, among other Afghanistan MFIs loan products. Respectively, other types of individual loan products, such as agricultural + Livestock loan and Islamic loan products show better performance from repayment rate perspectives. Moreover, this research shows that currently in Afghanistan is very less group loan into MFIs, since group loan have been shown less performances in terms of repayment rates.

Concerning the size of loan; this research found that increasing size of loan in the first loan has a negative impact on repayment rates performances, since most borrowers have less experience with loan and repayment procedures, thus they might not able to repay their loan on the due date. If the loan is not paid on time this effect negatively on the repayment rate performances. In order to avoid default risk than lower amount of loan in the first loan would be suitable for borrowers. Furthermore, our empirical studies found that Afghanistan MFIs increase the size of loan within the cycles of loan and it shows a better repayment rates performances. Our findings also show that the size of loan will increase for those borrowers whom have a good history in terms of repayment record. Therefore borrowers may attempt to be on time in terms of repayment, since they can obtain next loan in the second cycle of loan with a higher amount. We argue that increasing size of loan in the next cycles of loan can be an incentive policy for borrowers to honor their loan contracts.

Our findings on the age or cycle of loan perspective definitely show that increasing cycle of loan influence significantly positive impact on repayment rate perspectives. Indeed, extending cycle of loan accompanies with increasing amount of loan and good borrowers are the only who jump to the next cycle of loan, hence these borrowers may have good record in terms of repayment rate with their previous loan. Furthermore, our researches show that repayment rate performance is better with higher cycle of loan than the first cycle of loan. We argue that borrowers with higher cycle of loan may have better training to repay their loan, thus we emphasize that as higher cycle of loan as better repayment performances.

The results regarding Interest charge of loan effect on repayment rate performances are particularly interesting. We refer back to the age or cycle of loan, since by extending cycle of loan the amount of loan spontaneously increased, thus the interest charge also enhanced. Our findings from literature point of view have been shown that interest charge impact negatively on the repayment rate performance.

In our empirical studies we found that Gender is also a significant determinant of repayment rate performances amongst Afghanistan MFIs. In addition, Gender is a hot issue among theoretical studies and we found variety of arguments that some of them advocate that female borrowers are better in terms of repayment rate performances and some of them believe that male borrowers are better in terms of repayment rate performance. Most authors argued that female borrowers influence positively on repayment rate performance of MFIs than man. They believed that female borrowers are more conservative in their business strategies and they invest in types of businesses that allow easier repayment, thus women have higher repayment records (Todd, 1996). (Agier and Szafarz, 2010) argued the same result, that they experienced in Brazil. Likewise, (Johnson, 2004) argued that women's investment often denoted by a quick turnover that is more worthwhile to the regular repayments required by most MFIs.

Conversely, several studies believed that women are not able to honor their credit contracts, such as (Mersland *et al*., 2011), and (Philips and Bhatia, 2007). Most of studies are based on anecdotal evidence or they are restricted in geographical and institutional scope warrants (Mersland et al., 2011), and this is a simple fact that women, on average, are poorer than their male peers should demonstrate that repayments are more troublesome. Respectively, other authors suggested that female entrepreneurs tended to be overrepresented in traditional sectors with fewer benefits, lower develop opportunities, horrible competition that should make them less able to honor their credit contracts (Philips and Bhatia, 2007). According to our empirical studies we found that male and female borrowers respectively have equal repayment rate performances. In this, research we have gathered 2,000 individual borrowers information from Afghanistan MFIs with majority of male borrowers. As resulting, found that in Afghanistan MFIs male and female borrowers within an individual loan product have equal repayment rate performances.

To conclude, this research provides a good insight of inspiring perspectives that could be useful for Afghanistan microfinance institutions. Moreover, most of our research focuses on the scientist literatures, but one of our loan products, which is "Housing loan" not focused on the theoretical studies. Since, Housing loan is entirely an "Innovation" into microfinance institutions and this product launched for the first time in Afghanistan by "The First Micro-Finance Bank". In addition, we faced with limitation of literature regarding this product. As we mentioned earlier that housing loan is a new product and we are honorable to introduce this innovative product in our research. Furthermore, our findings demonstrate that generally individual loan including housing loan focused less on women than men. At the end of this paper we would confessed that we were not able in deeply to know the influence of interest rate on repayment rate performance from individual and grouping lending perspective, since we have not found sufficient theoretical studies. Moreover, we hope that further research should be done on housing loan, which is entirely new product for MFIs family across the world. Respectively, we suggest for more investigating about Islamic loan products, which also is partially a new product in the world of microfinance.

6. Discussion

Based on the perspective of type of loan, size of loan, interest rate and gender repayment rate , the implications of our findings well be explained. Links to the conceptual framework will be made.

The examples presented in type of loan, size of loan, interest rate and gender repayment rates are all context dependent and illustrate clearly that type of loan, size of loan, interest rate and gender repayment rate are linked to different values which lead to better repayment performance approaches. Each feature of repayment rate has its own particularities and it contributes to its uniqueness in terms of repayment rate performances. However it implies that no specific feature of repayment rate can be taken out from this study and directly applied to the Afghan MFIs. Nevertheless these examples are interesting for analyzing how type of loan, size of loan, interest rate and gender repayment rate performance, how they enhance the repayment rate.

Based on our empirical research, individual loan offers a good insight into how Afghan MFIs can enhance repayment rate performances. Different types of individual loan applied by MFIs in Afghanistan and the most common ones that demonstrated higher performances in terms of repayment rate and sustainability of MFIs are housing loan, agricultural + Livestock loan, Islamic loan, and individual loan.

We found that several studies and also our data analyzing from Afghan MFIs show that individual loan are more approached by MFIs, which concentrated on self-sufficiency rather than outreach. Our findings in this research show that individual loan has a better repayment rate performance than the group loan in Afghan MFIs. In addition, we found in our theoretical study that individual loan often focused more on the male borrowers than on the female. Respectively, our empirical studies show that most Afghan MFIs focused more on the male borrowers and much less on the female borrowers, since MFIs in this country often disbursed loan based on individual procedures. Likewise, our research from both dimensions "theoretical and empirical" found that MFIs which approach individual loan have higher outstanding loan, than group loan, since their outstanding loan increase rapidly by applying individual loan, but from clients outreach shows reductions compared to the group loan. We argue that most MFIs in Afghanistan aim to be soon sustainable by focusing solely on the individual loan, thus they are not aimed to alleviate poverty by targeting very poor people.

Consequently, our research shows that individual loan, such as housing loan, agricultural + Livestock loan, and Islamic loan showed greater repayment performance than group loan in Afghanistan. Furthermore, considering our research we found that most Afghan MFIs reduced disbursing for group loan, since group loan demonstrated less repayment rate performances compared to individual loan; however group loan will target more female borrowers than male.

The cases presented in the Size of loan and Cycle of Loan range very widely. The overall understanding of size of loan and cycle of loan obtained in this research is that size of loan and cycle of loan and influences of these two aspects on performance of repayment rate in MFIs is both positive and negative. Our empirical researches show that size of loan has a negative impact on the repayment rate performance, since increasing amount impact on the interest rates, thus for a borrower that has less income it will be difficult to repay his/her loan installments on time. When the loan is not paid on time, this can negatively impact the performance of repayment rate. Conversely, cycles of loan impact positively on loan

repayment rate performances. Our empirical studies demonstrated that increasing cycles of loan are depending on the better performance of borrowers on the previous loan cycles. For instance, if a borrower has less performance on the previous loan, then MFIs loan committee will never approved his/her loan for upper cycles of loan. Theoretical study in this paper shows that increasing size of loan is depending on the other features, for instance MFIs dedicate larger loan to borrowers with greater stocks of productive assets and show a better repayment performance (Godquin, 2004).

Furthermore, our theoretical research shows that cycle of loan has less repayment performances in terms of group lending. Cycle of loan or age of loan is very appropriate for group loan and expected that the social ties and other advantages of the group, such as integrating information, enhance with the age and cycle of the group. On the other hand, cycle or age of the loan reduce repayment performance of the group loan (Godquin, 2004).

Group lending is the most important aspect in MFIs, but unfortunately our data which were collected from Afghan MFIs faced with limitation of data regarding group loan. As we mentioned on the discussion of type of loan, currently Afghan MFIs have no grouping loan and they are focusing mostly on individual loan. Another limitation that we faced during this research is that we were not able to find sufficient theoretical studies that focused on the size of loan, age or cycle of loan from individual loan perspectives.

Our empirical studies show that size of loan and cycle or age of loan in terms of individual loan, effect positively on the repayment rate performances. Our data analyzing exhibited that individual loan in Afghan MFIs boost more rapidly than group loan. We expect that in the future there will be more investigation on more regarding impact of size of individual loan and cycle or age of individual loan on repayment rate performance.

Looking back at the performances which were derived from the many examples in the interest charge of loan perspective, there are common patterns to be observed and to be connected to the aspects explained earlier. Generally, interest charge of loan is accompanied with all other aspect of repayment rate, such as type of loan, cycle of loan. Our findings show that interest rates has bilateral role in the repayment rate performances, for instance, increasing interest charge influence significantly negative on the repayment rate performance, conversely decreasing interest charge impact significantly positive on the repayment rate performances. Moti *at al., (*2012) suggest that the higher the interest rate of the loan the lower the repayment rate performance of the loan.

This paper focuses on the repayment rate of Afghanistan MFIs and we also have collected our data from this country, thus findings from both "empirical and theoretical studies" show that increasing interest rates impacted significantly negative on the performance of repayment rate.

Considering interest rates, we faced with limitation of theoretical studies. However, Moti at al., (2012) suggest that increasing interest rate reduce repayment rate performance, but this is not clear for us that increasing interest rate reduce repayment rate of group loan or individual loan. We hope that more research in the future regarding impact of interest charge on the performance of repayment rate be done.

Gender is one of the impressive content in the world of microfinance. In a short definition we can say that MFIs impact significantly on both male and female small entrepreneurs. Though, our findings show that several studies believed that most of MFIs

borrowers are female, since women have better repayment rate performance and they are honor in their credit contracts. Women have better repayment record than man in Bangladesh Grameen Bank (Armendariz and Morduch, 2005). In addition, a study in Malaysia demonstrates that women borrowers showed better repayment rate performance compared with men (Gibbons and Kasim, 1991). Moreover, a report from Malawi, by Hulme (1991) suggests that women had better repayment than men, such as 92% of female clients had no overdue compared with 83% of men. Furthermore, Gibbons and Kasim (1990) argue that in Malaysia female borrowers paid their loan on time than men.

Most MFIs across the world focus on group loan, such as Bangladesh, Malawi, and Malaysia, therefore they believed that most borrowers of MFIs are women than men and they also argue that women are risk averse and women borrowers have less past due compared to men. Indeed, it also believed that group loan programmes often focused on the women than men, as well as group loan programmes focused more on the poorer people than individual loan.

Our research show that microfinance institutions in Afghanistan prefer individual lending than group lending, since individual lending shows better repayment rate performance in this country than group lending. Of course, Afghanistan is not the only country that MFIs prefer individual loan, since a study from Kenya also demonstrates that Kenya MFI prefer individual lending than group lending (Kodogo and Kendi, 2013). According to our empirical research in this country we found that most of borrowers in Afghanistan MFIs with an individual lending program are men than women. Likewise, our theoretical studies show that we have not seen any specific distinguished between male and female borrower from repayment rate performance perspective. This implies that individual lending programs male and female borrowers have equal repayment rate performance in Afghanistan MFIs, however there is more male borrowers comparing to the female borrowers.

7. Limitations

In this study we faced with variety of limitations, since we collected our data from Afghanistan microfinance institutions. At the beginning of this research we attempted to have more contact with different Afghanistan MFIs, but unfortunately we did not receive many respond from all of them, behalf two MFIs. These two MFIs comprise "The First Micro-Finance Bank Afghanistan and OXUS Afghanistan". Hopefully, we have gathered more than 2,000 borrower's information from FMFB and OXUS. Moreover, we conducted interview with managers of both MFIs as well as with loan officer that who are often involved with borrowers in the field. This interview was conducted by email and telephones after a lot of discussion with the manager and loan officer for interviews. However, at the beginning of this research we believed that most Afghanistan MFIs will focused on the group loan, but after our data analyzing we found that currently most Afghanistan MFIs have no group loan. Lack of group loan is a huge limitation of this study, since we found a wide range of literature about group loan with all aspects of this product. But our empirical studies do not focused on the group loan.

Other limitations of this study is Housing loan, since this product is entirely new into MFIs family across the world, thus we are not able to find any theoretical study regarding housing loan products. We cannot denied this product from our research, since housing loan demonstrates a higher performance in terms of repayment rate in Afghanistan MFIs, thus we are more enthusiast to introduce this product in our paper.

Accordingly, another limitation comes from the inability to travel to Afghanistan and visit MFIs and hold personal interviews face to face with the managers of MFIs, loan officers, and the most important aspect, borrowers of Afghanistan MFIs. Currently, I am not allowed to go to Afghanistan, since I am as a refugee student here in the Wageningen University Netherlands. The fact that this study was tied to desk research brings limitations for the scope of the research. This relates to the limitation of being dependent on the availability of respondents for online (e-mails, Skype) and telephone communications.

8. Recommendations

Based on the overall discussion, some main recommendations are found. All of the recommendations should be regarded as an inspiration for performance of repayment rate for Afghan microfinance obtained by literature studies of type of loan, size of loan, interest rate and gender and an empirical research on 2,000 borrowers from Afghan MFIs.

Moreover, from the perspective of types of loan, our first recommendation would be about business individual loan and housing individual loan. This entails the inclusion of situations of housing improvement and business improvement, which can lead to section of higher repayment rate performance and visually appealing more clients compared to other types of loan. Collaterals and third party guarantee make these loan less risky, more viable, increase their repayment rate performance, and decrease their past dues.

Furthermore, in terms of size of loan and cycle or age of loan, our recommendations are the following: in the first cycle of loan less disbursement would be more effective even if clients show more valuable collateral; MFIs should be very prudent about disbursing higher amounts of loan. Since in the first cycle of loan huge number of clients have no experience with MFIs loan and they are not entirely aware about the policy and procedure of MFIs, thus we recommend that in the first cycle of loan Afghan MFIs should disburse less than the demand of borrowers. Furthermore, by increasing cycle of loan, Afghan MFIs can disburse higher amounts of loan for their customers. Increasing cycle of loan shows that borrowers obtained more training, experience, as well as they show how they record their first cycle of loan repayment rate performances.

Likewise, our recommendation for the interest rate is that Afghan MFIs can keep up their interest rate as low as possible. We aim that by decreasing the outstanding loan portfolio the percentage of interest rate should be also reduced. Since, most MFIs in Afghanistan charge interest rate from borrowers from the first repayment installment until the last repayment installment the same interest rate. By decreasing outstanding loan portfolio, if MFIs decrease the interest rate than it would be easier for borrowers to repay their loan and this would prevent late repayment or past dues.

Accordingly, we would highly recommend Afghan MFIs to focus more on female borrowers as they are currently focusing on male borrowers. In this research we found that most borrowers of Afghanistan MFIs are male. Moreover, throughout this research we found that with MFId across the world female borrowers exhibited greater performance from repayment rate perspective than male borrower. Thus, it is believed that MFIs by focusing on female borrowers demonstrated better performance in repayment rate. We would once more recommend Afghan MFIs to focus more on female clients than male clients.

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10. Appendixes

10.1 Repayment Performances through Credit Risk Management

In this chapter we aim to investigate the impact of credit risk management practices on repayment performance in microfinance institutions. Financial institutions are performing a significant role in economic growth as they are mobilizing savings for worthwhile investment across to facilitating role in capital flows towards different sectors of the economy (Shanmugan and Bourde, 1990). Credit provision needs due attention since credit risk management is a significant and crucial aspect and hot subject between the issues faced by financial institutions (Ahmed and Malik, 2015).

In addition, this aspect (risk management) is not solely essential for sustainability but as well as for growth of banking sector. Moreover, the growth and sustainability provide consistency to local currency as well as the economy as whole (Greuning and Bratonovic, 2003). Existence of risk in commercial banks also is devoted to products offered by them. Those comprise balance sheet products as short term and long term loan, as well as off balance sheet such as letter of credits along with other guarantees. Considering to all the risks, loan however, establish a better ratio of credit risk as they commonly, account for 10-15 times the bank's equity (Kitua, 1996)

Likewise, in the recent years credit risk acquired focal significance because of enormous financial losses confronted by large international financial sectors (Nikolaidou and Vogiazas, 2014). Since the financial crisis, financial sectors predominantly commercial banking sector have taken particular measures to alleviate any future financial losses caused by mismanagement in loan allocations and credit recoveries (Ahmed and Malik, 2015). Collection past due officers or credit risk management officers are a viable solution to such challenges.

Currently, credit risk management established a crucial ingredient of a comprehensive approach to risk management in banking sector (Arora and Kumar, 2014). A key essential for viable credit risk management is the competency to sagaciously and effectively supervise customer credit lines. To underestimate this section to horrible obligation, over-saving and liquidations, financial sectors should have more prominent understanding into customer budgetary quality, financial assessment account and changing installment designs (Nkusu, 2011). Ahmed and Malik (2015) suggested that the credit term has significant positive impact on loan performance and also they emphasized that the credit performance and credit risk management are showing their positive and insignificant impact on the performance of the loan repayment rate. Accordingly, credit management for MFIs or other financial institutions for a loan contract does not stop until the whole and last instalment has been recovered (Moti *et al*., 2012). As well as, by transformation in financial conditions, the credit approach of the financial sector may also change.

10.2 Effectiveness of Credit Management System on MFIs

In the late 90s, the concept of credit management became widely appreciated by microfinance institutions, but loan default did not stop in this date (Morduch, 1999). Credit management can be traced back in history and this was not appreciated until and after the Second World War once this was mainly appreciated in Europe and later to Africa (Moti *et al*., 2012). Banks in USA provided loan to customers with high interest rates which often dissuade borrowers,

hence the concept of credit did not become widespread until the economic boom in US in 1885 when the banks had excess liquidity and wanted to lend the excess cash (Moti *et al*., 2012).

In 1990s, loan given to clients did not perform, which called for an intervention (Moti *et al*., 2012). Wide range of studies suggested for evaluation for client's capacity to reimburse the loan, but this did not work as loan defaults continued (Morduch, 1999).

A significant requirement for successful credit management is the competency to cleverly and effectively manage clients credit lines (Moti *et al*., 2012), in order to reduce exposure to bad debt, over-reserving and bankruptcies, companies should have better understanding into clients financial strength, credit score history and changing payment model. The competency to penetrate new markets and clients hinges on the competency to rapidly and easily make well-informed credit decisions and set suitable line of credit. This trend (credit management) begins with the sale and does not end until the full and last payment has been received. This is as significant as part of the deal as closing the sale. Moreover, a sale is technically not a sale until the money has been collected (Moti *et al*., 2012).

MFIs and other financial institutions must create and develop a credit policy to oversee their credit management processes (Pandey, 2008 and Moti *et al*., 2012). Furthermore, MFIs make their revenue from credit extended to low income individuals in the shape of interest charged on the funds granted (Central Bank Annual Report, 2010) the credit repayment might be ambiguous. The propensity of lending out credit depends on the methodology used to evaluate and to award the credit (Ditcher, 2003) and consequently the credit decision must be based on a rigorous assessment of the risk conditions of the lending and the features of the customer.

Based on the client appraisal trends, abundant approaches have been applied by financial institutions. They range from relatively unpretentious methods, such as the use of subjective or unofficial approaches, to entirely complex ones, such as the use of computerized simulation patterns (Horne, 2007). Numerous lending decisions by MFIs are often based on their subjective approaches concerning the risk in respect to anticipated repayment by the customers. Basically, this approach applies for all MFIs, since this is both simple and inexpensive.

Indeed, each company would have its own policy and procedure of specifying risk and quality of its borrowers, contingent on the target group; the following customer evaluation concepts are beneficial for most occasions. These concepts are mentioned to as the 5C's of credit appraisal (Edward, 1997). Following paragraph focuses on the 5C's of client's credit appraisal and we will attempt to explain in details each features of credit appraisal.

10.3 The 5 C's model of client appraisal

The 5 C's model of credit provides microfinance institutions with a concrete evaluation about their clients as a potential borrower (Adedi, 2000). The 5C's also provides MFIs to enhance their loan performance, as they get to have a greater insight from their customer. The 5C's is including of "*Character, capacity, collateral, capital and conditions"* (Edward, 1997).

10.4 The Character

The character basically is an instrument that provides weighting values for different determinants of a borrower and the whole weighted score of the borrower, which is applied to

estimate his credit value (Moti *et al*., 2012), and*" this is the personal impression the client makes on the potential lender".* The factors that impact a customer can be classified into cultural, social, personal and economic factors (Ouma, 1996).

In addition, the psychological factor is based on a man's inner value more exactly than on his tangible evidences of achievement. MFIs take it into account this factor by respecting and learning about the individual. Furthermore, in most occasions this is not taken into account on first application of credit by a borrower, but in the second cycle. Based on the social factors, the way a person lives is lifestyle. This entails designs of social relations (membership groups), consumption and entertainment. Basically, a lifestyle also reflects an individual's attitudes, worthiness or worldview. Reference group in most occasions have devious effect on a person's credibility. MFI's attempt to recognize the reference groups of their target since they affect a borrower's credibility. Personal factors comprise age, life cycle stage, income or economic situation, occupation, personality and self-concept. Based on life cycle stage for instance big families with adult children are not probably to default as this is easier to include on their assets because they are settled unlike the unsettled young pairs (Moti *et al*., 2012).

The MFI's would concentrate the cash flow from the business, the repayment schedules, and the thriving of the loan repayment performance according to (Moti et al., 2012, and Anthony 2006), and cash flow from MFIs perspective defines as the cash that a debtor has to reimburse his/her debt. Cash flow provides the MFI's to verify if the customer has the capability to repay the debt. Cash flow analyzing can be very technical. This might contain more than easily evaluating and comparing income and expenses. MFI's controls cash flow considering current cash flow statements (if present) and rational projections for the future ratios (Moti *et al*., 2012 and Anthony, 2006).

Borrowers should have a good business plan and financial statements, since lenders are keen to review these documents, lenders have a checklist of items to look at one of the being the number of financial ratios that the financial statements expose (Moti *et al*., 2012). In order to avoid any misunderstanding and prevent future risk these ratios are instructions to contribute lenders ascertain whether the borrower would be able to service current expanses plus pay for other expense of a new loan.

10.5 The collateral

The Collateral is a significant aspect which in most cases makes both parties (MFIs and borrowers) enthusiastic to exploit a transaction. Moti *et al*. (2012) posit that any asset that borrowers have to pledge against debt is collateral. Collateral signifies assets that the company pledges as alternative repayment source of loan. Collateral defines in different types, such as real estate and office or manufacturing equipment, which indicates as hard form of hard assets. In addition, accounts receivable and inventory as alternative can be pledged as collateral. Considering the fact that MFIs of short term funds prefer collateral that has period intimately corresponded to the short term loan.

10.6 The Capital

In order, capital is money or in other words tangible asset of borrower's business. Capital also is determined by the general financial position of the borrower as demonstrated by a financial ratio analysis, with particular underscore on tangible net worth of the customer's business.

Consequently, capital is the money a customer personally financed in the business and this is a sign of how much the customer has at risk should the business fail (Moti *et al*., 2012).

10.7 The conditions

Respectively, conditions also is the last aspect of clients appraisal model, which demonstrates the customer's sensitivity to external forces such as interest rates, inflation rates, business cycles, and competitive pressures. This aspect (conditions) more likely focus on the customer's vulnerability (Moti *et al*., 2012).

10.8 Interview list which conducted in this research

Below list of questions was conducted with OXUS-Afghanistan and The First Microfinance Bank Afghanistan concerning their activities in the field of work. The main goal of these interviews with above-mentioned MFIs is to identify different aspects of repayment and performance of repayment rate from various perspectives.

No	***Questions***
1	In general, what is objective of MFIs in Afghanistan, from your perspective?
2	What is repayment rate?
3	What is the impact of repayment rate on your MFI?
4	What are the positive factors of repayment rate, from your MFI perspective?
5	What are the negative factors of repayment rate?
6	What are the influences of positive factors of repayment rate?
7	Does this MFI experience the influence of negative factors of repayment rates and how were the consequences?
8	What types of products or loans have your organization and can you please mention name of them?
9	Why Afghanistan MFIs mostly focus on individual loans than group loans?
10	From your perspective, why your organization did not disburse group loan, currently?
11	Does your MFI focus on outreach or sustainable?
12	Why your organization focuses or focuses not on outreach?
13	Why your organization focuses or focus not on sustainable?
14	Why your MFI did not focus on both outreach and sustainability?
15	What is your definition from size of loan?

16	What is the impact of size of loan on repayment rate performance?
17	What is age or cycle of loan?
18	To what extend age or cycle of loan impact positive on repayment rate performance?
19	To what extend age or cycle of loan impact negative on repayment rate performance
20	What is interest rate from your perspective?
21	What is the impact of interest rate on repayment rate performance?
22	How much your MFI charge interest rate on the loan?
23	Does your MFI charge interest rate higher or lower percentage comparing to other MFIs in Afghanistan?
24	To what extend your MFI has better services for your borrower's comparison to the other MFI in Afghanistan?
25	Why your MFI is unique and why not?
26	To what extend your MFI operate equally amongst male and female borrowers? And why?
27	From gender perspective, what types of borrowers do you have into your organization?
28	What is the percentage of your male borrowers?
29	What is the percentage of your female borrowers?
30	Based on percentage of your barrowers, is there any bias between your borrowers or not?
31	In terms of repayment rate, in your organization male borrowers have better repayment record or female?
32	Why male have better repayment performance/ why not?
33	Why female have better repayment performance/ why not?
34	What are your expectations from your borrowers?
35	What are your borrower's expectations from your organization?
36	What are current challenges of your MFI?
37	From your perspective, what are best solutions for these challenges?
38	To what extend you are success in implementation of policy and procedures of your MFI in practices?

39	To what extend do you listen to the problems of your borrowers?
40	To what extend you are successful to find a good solution for your borrowers problems and how?
41	What are your limitations and challenges based on your task?
43	Based on question 41, how do you deal with these problems?
45	In general, what is the best alternative or solution for all challenges and problems, which your MFI has, currently?
46	What is your recommendation for your MFI?