

# REPAYMENT BEHAVIOR IN MICROFINANCE, THE ROLE OF ACCOUNTABILITY AS MEDIATOR AND CUSTOMER SERVICE AS MODERATOR: A CONCEPTUAL PAPER

Mohamad Hanif Abu Hassan<sup>1\*</sup>

Wahidah Shari<sup>2</sup>

Muhammad Zarunnaim Haji Wahab<sup>3</sup>

<sup>1,3</sup>Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Kedah, Malaysia,  
(E-mail: hanifab@uum.edu.my)

<sup>2</sup>Islamic Business School, Universiti Utara Malaysia Sintok, Kedah.  
(E-mail: hannah@uitm.edu.my)

<sup>3</sup>Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Kedah, Malaysia,  
(E-mail: zarunnaim@uitm.edu.my)

## Article history

Received date : 5-9-2022

Revised date : 6-9-2022

Accepted date : 4-11-2022

Published date : 5-11-2022

## To cite this document:

Hassan, M. H. A., Shari, W., & Wahab, M. Z. H. (2022). Repayment Behavior In Microfinance, The Role Of Accountability As Mediator And Customer Service As Moderator: A Conceptual Paper. *International Journal of Accounting, Finance and Business (IJAFB)*, 7(44), 1 - 15.

---

**Abstract:** *The aim of this study is to develop a conceptual research framework to identify the factors that influence Non-Performance Loans (NPLs) in microfinance schemes under the individual lending approach in Malaysia. The main objective of microfinance is to reduce poverty. Previous researchers have reported mixed results on the effectiveness of microfinance on poverty alleviation. Therefore, numerous factors have been investigated to explain the phenomenon, such as risk management, collaterals, repayment performance, delinquent payments, and challenges. Consequently, high non-performing loans incurred by the micro finance institutions is one of the factors that contributes to the failure in achieving the goal of reducing poverty. In addition, loan repayment issues will worsen due to weak global growth and economic reforms in domestic economy such as the rationalization of subsidies as well as the implementation of minimum wage and goods and services tax. Based on an extensive literature review, we have used the theory of reinforcement to conceptualize the relationships among all variables. This research work is intended to add to existing knowledge and give further information, guidance, and tools to lenders and borrowers about the factors that influence repayment behavior under the microfinance facilities.*

**Keywords:** *Islamic Microfinance, Repayment Performance, Behavior, Conceptual Paper*

---

## Introduction

Microfinance refers to the provision of financial service concentrating on the very poor, who often are from the low income group and self-employed (Idama, 2014 & Otero, 1999). Sinha (1998) defined microcredit as small loans, whereas microfinance involves the provision of financial services by non-governmental organisations (NGOs) and micro finance institutions (MFIs), which include financing, saving, insurance, and other financial dealings. Thus, microcredit is a subset of microfinance, as microfinance encompasses the provision of credit financing for the low income group as well as non-credit financial products including savings, insurance, pensions, and payment services (Idama, 2014).

There are two financing mechanisms offered under microfinance, namely group-based and individual-based lendings. Group-based lending refers to the financing offered to a group of entrepreneurs comprising several individuals who carry out different business activities. It is also known as joint-liability financing whereby all members of the group share the same liabilities and are involved in similar litigation (Galindo et al., 2015; Kodongo & Kendi, 2013). Meanwhile, individual-based lending is typically used for slightly larger loan sizes as compared to the group-based approach (Market-Led Solutions for Financial Services, 2017). In addition, individual loans may require one or two guarantors, depending on business performance. Liability and risks are borne by the individuals (Kodongo & Kendi, 2013; Maiangwa, 2012).

Even though the main purpose of microfinance is poverty alleviation, previous studies have documented mixed results regarding its effectiveness in reducing poverty. They found divergent findings, namely positive, negative, and no impact on poverty alleviation (Samer et al., 2015). Therefore, various factors have been investigated to explain the phenomenon, such as risk management, collaterals, performance issues, payment delinquency, and challenges. The high non-performance loans (NPLs) faced by micro finance institutions (MFIs) has been found as one of the factors that contributes to the failure of microfinance in achieving its main objective, which is to reduce poverty (Shu-Teng et al., 2015). In fact, poor loan collection in major rural credit schemes has caused heavy losses (Bichanga & Aseyo, 2013). The prevalence of NPLs in Malaysia has shown an increasing trend over the years (Chong et al., 2010; Nawai, 2013; Nawai & Shariff, 2012; Shu-Teng et al., 2015b).

However, previous literature on repayment performance in microfinance has mostly focused on group-based lending because it represents a major part of the microfinancing activities. Meanwhile, Besley and Coate (1995), Ghatak and Guinnane (1999), and Silwal (2003) had conducted research on financing repayment performance for individual-based lending. According to Maiangwa (2012), individual-based lending is riskier as compared to the group-based lending with regard to repayment performance. One of the risks that has been documented is the ability to make payment because usually the amount of financing offered for individual-based lending is higher than in group-based lending. In addition, Maiangwa (2012) and Shu-Teng et al. (2015) stated that individual-based lendings are exposed to the deficiency of loan information and the problem of loan monitoring by financial institutions.

Therefore, this study will provide new insights on the repayment performance of individual-based loans under the microfinancing schemes in Malaysia. In particular, the present research will ascertain the factors that contribute to repayment behaviour among microfinance borrowers by applying the theory of reinforcement. Elements of accountability and customer service quality are explored as antecedents in the context of repayment performance. According to Walker (2002), accountability plays an important role in the repayment behaviour of the

microfinance borrowers. A person who has higher accountability is always responsible for what he or she does as well as the duties that have been agreed upon and accepted. He or she must be able to fulfil the obligations satisfactorily. Meanwhile, customer service refers to extending services to customers before, during, and after any transaction. Improving the quality of service is important for maintaining customer loyalty and relationships (Ravichandran, 2010). In addition, quality service can improve customer satisfaction in any concern in order to maximise the enjoyment of customer experience and minimise or eliminate unpleasant customer experience.

This study selected Malaysia as the research location. As mentioned in previous literature, Malaysia has been successful in implementing the microfinance programme, which involves a wide range of institutions, from credit unions and cooperatives to non-government organisations (NGO), government agencies, private companies, and commercial banks. Some of the well-known institutions that offer microfinance facilities are Amanah Ikhtiar, Tabung Ekonomi Kumpulan Usaha Niaga (TEKUN), Majlis Amanah Rakyat (MARA), Bank Simpanan Nasional (BSN), Small and Medium Enterprise (SME), Yayasan Usaha MAju (YUM), and Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat) (Shu-Teng et al., 2015a). Lately, the issues of loan repayment problem occur with all institutions. For the data collection, this study selected borrowers who reside in rural areas; the questionnaires were randomly distributed to gain feedback from the borrowers. The selection criterion of the samples is the borrowers who are engaged in micro- and small-sized business activities.

The main issue discussed is the problem of loan repayment regarding Islamic microfinance products in Malaysia based on the individual lending approach. The scope of the study focuses on the rural entrepreneurs who on average have micro and small businesses. Researchers have long discussed the loan repayment issues in microfinance. Most of the previous studies argued that repayment performance is an important factor to enable the MFIs to operate in a sustainable manner (Godquin, 2004a; N. Nawai & Shariff, 2012; Shu-Teng et al., 2015b; Suraya Hanim Mokhtar & Gan, 2012).

Furthermore, the previous studies have criticised the subsidised microfinance system<sup>1</sup>, which recorded high default rates (Morduch, 2006; Robinson, 2001). This statement has been confirmed by Suraya Hanim Mokhtar, Zealand, and Gan (2012), who documented that repayment performance in several MFIs in Malaysia, especially under the subsidised system, have not been satisfactory. Thus, to illustrate this argument, some of the data from previous studies have been used to compare the repayment performance rates of microfinance facilities in Malaysia (refer to Table 1).

---

<sup>1</sup> Oxford Dictionary (2017) defines a subsidised system as the government or organisations supporting business activities or financially, while Mokhtar (2011) mentioned that under a subsidised system, the regulations or conditions of the loan are set by the government to ensure that the activities are run smoothly and efficiently.

**Table 1: The Prevalence of Non-Performing Loans/Financing (NPL/NPF) under Microfinance Products in Malaysia**

<b>Financial Institutions</b>	<b>Rate Of Non-Performance Loans (Npl)</b>
<b><i>Government Agencies</i></b>	
TEKUN Nasional	37.82%
Yayasan Usahawan Malaysia (YUM)	9.28%
Amanah Ikhtiar Malaysia (AIM)	1.5%
Permodalan Usahawan Nasional Berhad (PUNB)	6.35%
Cooperative Commission of Malaysia (CCM)	13.8%
<b><i>Government Linked Companies (GLC)</i></b>	
Perbadanan Nasional Berhad (PNB)	1.76%
Bank Rakyat	72.04%
SME Bank	36.39%
<b><i>Commercial Banks</i></b>	
Public Bank, CIMB, Maybank	0.95%–3.15%

Sources: (Bank Rakyat, 2015; Berita Harian, 2018; Bernama, 2018; Hassan & Yahya, 2020; KKLW, 2018, 2019; PNB, 2018; Shu-Teng et al., 2015a; Sun, 2018; suraya Hanim Mokhtar & Gan, 2012; Utusan, 2018)

Table 1 shows the prevalence of loans defaults for the three main categories of microfinancing providers in Malaysia, namely government agencies, government-linked companies (GLCs), and commercial banks. The government agencies, which are the Cooperative Commission of Malaysia (CCM) and Perbadanan Nasional Berhad (PNB), recorded NPLs of 13.8% and 1.76% respectively. Percentages of NPLs were reported by TEKUN Nasional and Permodalan Usahawan Nasional Berhad (PUNB), at 37.82% and 6.35% respectively. Meanwhile, the commercial banks, namely Public Bank Berhad, CIMB Bank Berhad, and Malayan Banking Berhad (Maybank) recorded NPLs in the range of 0.95% to 3.15%. Under the GLC category, Bank Rakyat recorded NPL of 72.04% in 2018. This percentage is worse than the percentages recorded by the government agencies and commercial banks.

In addition, the World Bank Group (2017) reported that Malaysian financial institutions had recorded the highest debts in the world and 56% of Malaysian adults had bank loans, which was the highest percentage recorded worldwide. Apart from that, Malaysia's NPL ratio had increased in September 2017 to 1.7% from 1.6% in 2016 (CEIC, 2017; World Bank Group, 2017). Among the reasons for the increase in NPL are weak global growth and economic reforms in the domestic economy such as the rationalisation of subsidies as well as the implementation of minimum wage and goods and services tax. These circumstances were determined as factors that influence payment behaviour among customers of Islamic retail financing. Therefore, these factors should serve as early indicators to financial institutions to be more alert of potential repayment problems in the future. For entrepreneurs, they must be able to identify the causes of these problems so that they can be more cautious and prepared. Thus, it is expected that this study will identify the factors that cause the occurrence of the repayment problem and ascertain the factors influencing borrowers' accountability.

### **Research Objective**

This research is intended to extend on the work in the previous literature by focusing on the determinants of repayment behaviour for the microfinance products. Therefore, five sub-objectives have been formulated as follow:

1. To examine the factors of demography that influence the repayment behaviour of the borrower of Islamic microfinance.
2. To examine the role of religiosity that influences the repayment behaviour of the borrower of Islamic microfinance.
3. To examine the understanding of the financing agreement to encourage the borrower to perform the repayment.
4. To examine the factor of business performance that influences the repayment behaviour of the borrower of Islamic microfinance.
5. To examine the role of accountability as a mediator and customer service quality as a moderator to afford the determinants of repayment behaviour of the borrower of Islamic microfinance.

By achieving these objectives, this study expects to add to the body of knowledge on the factors affecting repayment behaviour in microfinance. Thus, the findings of this study are expected to aid loan providers and policymakers through providing practical insights and valuable information of the factors affecting microfinance loan repayment in the form of a model that can predict microfinancing repayment issues.

### **Research Questions**

In view of the explanation given in the problem statement and objectives of the study, the following research questions have been formulated:

1. Do the factors of demography positively affect the repayment behaviour of microfinance borrowers?
2. Does the role of religiosity positively affect the repayment behaviour of microfinance borrowers?
3. Does the understanding of the financing agreement positively influence the borrowers' behaviour to perform the financing repayment?
4. Does the factor of business performance positively affect the repayment behaviour of borrowers to perform the financing repayment?
5. Are the levels of accountability and customer service quality as a mediator and a moderator, respectively, effective in encouraging borrowers' commitment to perform the financing repayment?

### **Significance of the Study**

This study is expected to extend the breadth and depth of knowledge regarding the determinants of microfinance repayment performance. Besides, the study is expected to distinguish between theoretical aspect and practical perspective. From the theoretical aspect, it is expected that this study will fill the knowledge gap with regard to gaining commitment from borrowers and financial institutions based on accountability and customer service quality as antecedents. From the literature review, the issue of loan repayment problems is debated. However, in Malaysia, there is a lack of studies focusing on Islamic microfinance, particularly from the perspective of bank borrowers in the sample. Therefore, it is intended that this research will contribute new information with the aim of improving loan repayment.

Moreover, from practical perspective, it is crucial for the financial institutions to understand the factors that affect loan repayment, as in a situation of default, the financial institutions may not have sufficient funds to maintain their liquidity position. Consequently, there might be disruptions in the cyclical flow of funds between the financial institutions and the borrowers.

Accordingly, the results of this study may provide information to financial institutions and the borrowers about the causes of loan defaults.

### Literature Review

A study was conducted by Bhatt and Tang (2002) focusing on the determinants of loan repayment performance for microcredit schemes in the USA. They had examined the socio-economics variables such as gender, educational level, household income, and business characteristics, namely business activities, number of years in business, and business performance. They noted a significant and positive association between higher education level and repayment performance. On the other hand, other variables, namely household income, female borrowers, business activities, and number of years in business do not have significant impact on repayment behavior. C.C Eze (2007) also studied the determinants of loan repayment in Southeast, Nigeria. The author revealed that the loan amount disbursed, the age of beneficiaries, household income, number of years of formal education, and occupation are significant determinants of loan repayment.

In more recent study, Sunil Sangwan (2020) examine the factors that contribute to the loan delinquency in Microfinance institution in India. By focusing on 498 Indian households, they reveals that level of income, level of indebtedness and loan diversion, and cost of borrowing leads to the defaults among borrowers. They further reported that absence of supervision by Microfinance institutions contribute to higher loan delinquency. This finding confirmed by Chamboko & Guvuriro (2022) who found that the level of income, number of previous loans and loan terms explained the delinquency among borrowers in Zimbabwe. In addition, standard of loan procedure adopted by Microfinance Institution in selecting borrowers is another important factors in reducing defaults rate (Muthama, K. M., Warui, F., (2021).

Furthermore, most of the previous literature had mentioned that the problems of loan repayment mostly occurred among those were involved with agricultural activities. Kohansal and Mansoori (2009) had identified the determinants of repayment behavior among farmers who obtained financing from an agriculture bank in the Khorasan-Razavi Province of Iran. They revealed that the major determinant for repayment of agriculture loans is interest rates. Other crucial factors are experience in farming and total application cost. Okorie (1986) had extended on this study to ascertain the determinants of loan repayment among smallholder<sup>2</sup> borrowers who were the client farmers of one agriculture corporation in Nigeria. The author listed three major factors that influence repayment, such as disbursement issues, loan monitoring, as well as the profitability of the business where the loan proceeds were invested. Further, better loan repayment performance is recorded among borrowers who obtained loan in kind<sup>3</sup> than the borrowers who obtained a cash loan. Misutilization of the cash proceeds received is a reason for this phenomenon. Other factors contributing to better loan repayment performance are better monitoring system and borrowers making higher profits.

A further study was conducted by Godquin (2004), who examined loan repayment performance in Bangladesh. His analysis was focused on the impact of group lending, non-financial products,

---

<sup>2</sup> Okorie (1986) defined, the smallholders who have limited collateral capabilities and involve with small agriculture activities.

<sup>3</sup> The meaning of loan kind is involves giving the loan to the recipient in the form of either services or farm inputs. It can ensure that farmers do not utilize the loan for other purposes (Okorie, 1986)

and great incentives towards repayment performance. He found positive but non-significant correlation between gender and loan repayment. The study findings concur with the study carried out by (Ademola, 2022). They argued that, gender and household type, did not significant influence the on repayment rate. Besides, results revealed that amount of loan, interest rates, and mode and period of loan repayment significantly effect the loan repayment performance in South West Nigeria.

Mekonnen, (2015) had examined the determinant factors of loan repayment performance among rural women borrowers of saving and credit cooperatives in rural Dire Dawa, Ethiopia administration. The variables investigated include livestock ownership, loan supervision, education level, loan size, profits derived from activities that were financed by the loan, timeliness of loan release, suitability of loan repayment period, income from other activities, age, celebrating and participating in social festivals, and loan diversion. The results were mixed, showing either significant positive or negative. On the contrary, Chaudhary and Ishfaq (2003) had investigated the creditworthiness of rural borrowers in Pakistan. They found higher probability of loan repayment among borrowers who had higher educational level, were not in the farming business, were female borrowers, and who utilized the loan proceeds for investment purposes.

#### **Empirical Studies on Defaults in Malaysia**

In more recent study, Hassan et al., (2022) investigates the antecedents of accountability as the mediator in the relationship between borrower characteristics and repayment behaviour in Islamic microfinance program. The findings of the study indicates that borrower characteristics contribute a significant effect on the financing repayment behaviour among microfinance borrowers. They further argued that accountability of the borrower strengthens the effect of borrower characteristics on repayment behaviour.

Roslan and Abd (2009) investigated the factors affecting loan repayment among microcredit borrowers of Bank Pertanian Malaysia Berhad (Agrobank) in Malaysia. Three categories of variables were identified, namely borrowers' characteristics, project or business characteristics, and loan characteristics. They reported higher prevalence of default among male borrowers and borrowers with longer repayment duration. Later on, Chong, Morni, and Suhaimi (2010) had investigated whether demographic factors can influence loan repayment among borrowers of non-bank financial institutions in Kuching, Sarawak. The sample in this study comprised borrowers who took housing, personal, and loans. The variables were gender, respondents' age, level of education, occupation, and distance between customer's place and the non-bank financial institution. They found non-significant correlation of gender, age, education, and occupation with loan repayment performance. However, time constraint was shown to affect the repayment behavior in the cases involving longer distance.

Suraya Hanim Mokhtar, Zealand, and Gan (2012) had further extended the study to identify the causes of repayment issues involving microfinance borrowers of TEKUN Nasional (TEKUN) and Yayasan Usahawan Malaysia (YUM) in Malaysia. They found that loan repayment performance is affected by the characteristics of the borrowers, the businesses, and the loans. In a related study, Nawai and Mohd Shariff (2013) had examined repayment performance based of individual-based lending under microfinance programs in Malaysia. The independent variables in the study comprised individual/borrower factors, firm/business factors, loan factors, and institutional/lender factors. Meanwhile, the dependent variables consisted of on time payment, delinquency, or default... Ten variables were identified as the influencing factors

of repayment performance, namely age, gender, number of years in business, religious education, household income, sales, distance to the lender's office, the formality of business, time taken for approval of loan, and recovery.

Shu-Teng, Zariyawati, Suraya-Hanim, and Annuar (2015) argued that the non-performing loans in Malaysia have resulted in negative and the prevalence of non-performing loans have been increasing. Therefore, this study will investigate the determinants of loan repayment performance of SMEs. The variables used in this study are gender, age, educational level, total sales, number of years in business, loan tenure, monitoring, and training. Four variables were found to have significant effect on SMEs' loan repayment, which are: educational level of borrower, business experience, loan amount, and repayment period.

In other related study, Wahi & Sabli (2022) evaluate the relationship between dynamic incentives and the performance of microentrepreneurial business in Malaysia. Study was conducted among 450 micro-entrepreneur reveals that dynamic incentives is significant positive influence the micro-entrepreneur firm performance. They further reported that dynamic incentives motivate borrowers to increase their repayment gains.

As discussed in preceding sections, numerous research had been done to understand the factors influencing loan repayment performance in Malaysia and other countries. Most of the previous researchers had focused on socio-economies factors and credit extended to agriculture sector. However, studies on the importance of accountability and religiosity in determining loan repayment performance especially in microfinance loan are still lacking. As opposed to previous studies, selecting banking institutions and Islamic microfinance as a sample of this study can fill the existing gaps in the microfinance literature as not many studies have focused on these aspects in the context of repayment performance.

### **Theoretical background and key concepts**

The reinforcement theory, founded by Skinner (1931) will be used in this study. Skinner defined reinforcement as a result that would reinforce future behavior when it is related to a previous behavior. In addition, reinforcement is also associated with the stimulation of desires and likes (Schultz, 2015). However, the feelings do not necessarily affect behavior unless they act as stimuli towards the improvement of what is expected.

Discussions related to human behavior had started more than 25 years ago (Donahoe et al., 1993). Reinforcement theory is the basic theory to determine human behavior (Bandura, 1974; Calvin & McDowell, 2016). Besides, it is among the earliest motivational theories, which is a way to explain a behavior and why it happens (Bandura, 1974). Reinforcement theory has been used in many studies involving various subjects such as animals, children, and employees (Bandura, 1974; Dawson, M. E., 1974; Schultz, 2006)

Furthermore, reinforcement is a type of operant conditioning, which emphasizes on the environmental factors that affect a person's behaviour (Schmidt, 2014). Reinforcement theory focuses on behaviors that can be seen and do not require a theory that focuses on the personal circumstances as it is well known. The reinforcement theory applies its thinking on motivating adaptation through various stimuli, so various industries will obtain better insight of human behavior (Schmidt 2014). Further, Huitt, W. and Hummel, (1997) stated that there are four methods for determining behavior under the theory of reinforcement, namely: positive reinforcement, negative reinforcement, positive punishment, and negative punishment.

### Conceptual Framework

This study intends to ascertain the significant determinants of loan repayment behavior among borrowers of Islamic microfinance loans in Malaysia under personal-based lending. As mentioned in the problem statement, the difficulties and issues faced by financial institutions are poor loan collections and the problem of NPLs. Therefore, a sound understanding of the mechanisms that determine loan repayment behavior is helpful for microfinance institutions and borrowers in identifying the risks and causes of loan repayment problems. By identifying the repayment problem, the microfinance institutions will be able to allocate loans more efficiently and ultimately, loan repayment rates will improve. With respect to the existing literature, our analysis is different in that it focuses on the features of the borrowers' characteristics and business performance itself, rather than investigating microfinance products.

With regard to the adoption of the reinforcement theory, this study will examine the impact of punishments and rewards in order to encourage the borrowers to be more accountable. According to Skinner (1931), human behavior can be altered based on the impact that would apply to them. This opinion is consistent with Bandura (1974), who argued that human behavior occurs because of the reaction to the environment or as a consequence of a person's history. In addition, the behavior may also occur due to reinforcement and punishment that motivates them to perform (Schultz, 2015). Dawson, M. E.(1974) also mentioned that people's behavior cannot be learnt even with repetitive, paired experience unless it is correlated with them.

The reinforcement theory is an element that will alert the lender and the borrower to work properly so that the effect will be acceptable to both of them. This circumstance is considered as a motivating factor for the borrowers because if they performed, they would earn rewards and otherwise, the elements of punishment would be imposed. Dulany (1968) argued that people will be motivated to do something when they know the consequences of their actions. Accordingly, reinforcement is better understood when the exponent is informative and provides motivating influence.

Therefore, with regard to the emphasis on punishment and rewards under the theory of reinforcement, some potential variables have been identified to determine the consequence of borrower's behavior. In addition, the selection of variables is based on several criteria including those used in most of the literature related to repayment performance, punishment, and rewards that focused on the borrowers.

In summary, the correlations between variables and reinforcement theory are as follows. First, in terms of demography, it is related with basic human background such as occupation, education, age, and marital status (Chong et al., 2010; Fam et al., 2004; Ismail, 2011). Reviewing demography can provide information about a person's economic stability. Someone who is successful in managing himself/herself will gain rewards such as better career opportunities and a more stable life. On the other hand, the failure to manage oneself will result in punishment such as loss of career direction as well as relationships problem with family members, society, and others. These circumstances would restrict the opportunity to have a successful life.

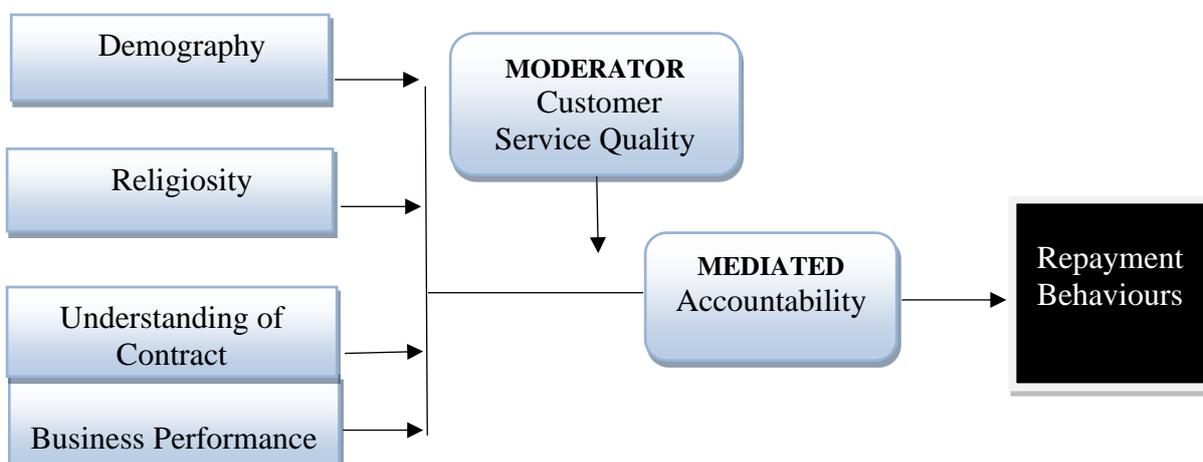
Second is religiosity. Religion is the belief in the Creator and it calls for good deeds. In the Islamic dimension, the views of reward and punishment are numerous, extensive, and comprehensive. Reward and punishment can happen between man and God, between man and man, and between man and the universe, and this includes his deepest self (Nazri et al., 2011).

When people practice religion, they will refrain from doing anything useless or that can destroy them. The effect of punishment and reward will be a motivation for them to succeed in the world and hereafter. Next is understanding of the contract. Generally, contracts are agreements in place between two parties that should be binding on them (Fayyad, 2013). The element of reward and punishment should be clearly stated in contract because it can give an early signal regarding the effect to be imposed (Central Bank of Malaysia, 2012).

Finally, is business performance. Business performance is about how the owner of the company drives and performs the business (Achim & Borlea, 2013). Performance is related with effectiveness of management, financial stability, and operational performance (Venkatraman & Ramanujam, 1986). Every company has rules that must be followed to ensure that all parties carry out their duties perfectly. In the rules, the elements of reward and punishment must be applied in order to help all parties to achieve their targets (Bandura, 1974; Nazri et al., 2011). The effect of reward and punishment will affect the behavior of all parties and it can play a role in improving a company's performance.

Furthermore, in order to complete the study of determining the issue of repayment performance, the variable of accountability will be used as a mediator to enhance the correlation between independent and dependent variables. According to Dixon et al. (2006) and Lewis (2006), accountability is a key factor that affects the repayment behavior of microfinance borrowers. Furthermore, to complement the accountability attitude, customer service quality variable is used as a moderator to give support and encouragement to the borrowers to perform on the repayment. According to Mosahab (2010), customer service quality is key in educating customers to be loyal and it can make the customers more transparent in sharing information. This will enable the banks to monitor the current status of customers particularly in relation with repayment performance.

Therefore, the expected contributions from this framework can be distinguished between the theoretical and the practical aspects. For the theoretical aspect, it can fill the knowledge gap in the model of gaining commitments from lenders and borrowers based on all variables that have been investigated. For the practical aspect, the financial institutions can use the results to gain an idea for understanding the customers' characteristics, the factors that influence customer behavior especially repayment behavior, and as a guideline for screening internal problems in the organization.



**Figure 1: Theoretical Framework**

## Methodology

This paper used the cross-sectional design for MFI borrowers. The data collection by using questionnaires on a series of variables related to MFI borrower background, as well as an understanding of the rules and regulations of financing contract, borrowers' repayment performance, and customers' experience in dealing with the MFI customer service. A statistical software program, SPSS (Statistical Package for Social Sciences) version 25 will be used to perform a comprehensive data analysis because it can summarise and describe the characteristics of the respondents while disclosing the general pattern of the responses (Chong, Morni, & Suhaimi, 2010; Shu-Teng, Zariyawati, Suraya-Hanim, & Annuar, 2015). Furthermore, in social science research, the method for data analysis that is extensively accepted is structural equation modelling (SEM) for second generation multivariates. This method is suitable to be used as a tool to test theoretically supported path-analytic modelling with multiple latent variables (Chin., 1998; Michael Haenlein, 2004).

For testing the structural equation model, this study selected the PLS approach for the statistical analysis. Ahlemann and Urbach (2010) mentioned that the PLS approach is more suitable and useful for making predictions because, first, the main purpose of the current research is to explain the variance of the repayment behaviour assumed to be influenced by borrower characteristic. Second, the model that has been developed is considered complex as it consists of multiple latent constructs, mediator, and moderator, and hence, it is advisable to use PLS (Ahlemann, 2010; Gefen, Straub, D., & Boudreau, 2000). Third, the sample size of this study is moderately small, and hence, it is more appropriate to use the PLS approach rather than the CB-SEM as the PLS approach gives better accuracy with a small sample size (Henseler et al 2009). Lastly, PLS does not require normal data distribution (Chin, & Newsted, 1999).

## Conclusion

The conceptual proposal is the initial phase in an attempt to initiate a comprehensive research related to payment commitment. This paper's objective is to gain a better insight of the internal factors affecting repayment behavior, taking into consideration accountability as the mediator and customer service quality as the moderator. This paper is to extend on the previous literature regarding loan repayment problem. However, most of the literature had discussed on the borrowers of GLCs and studies on the actual problem involving microfinance borrowers of an Islamic bank are still lacking. This study has used the reinforcement theory to support all the variables. This theory provides a framework for understanding the correlations in this problem. Besides, this research tries to prove that the borrowers do not intend to perform their responsibilities because of the influence of intention, even though logically they have the capacity to carry out their responsibilities.

## Reference

- Achim, M. V., & Borlea, S. N. (2013). Business performances : between profitability, return and growth. *Economic Sciences Series*, 2, 1–12.
- Ademola, A. O. (2022). *Understanding the Factors influencing Loan Repayment Performance of Nigerian Microfinance Banks*. December 2021.
- Ahlemann, U. &. (2010). Structural Equation Modeling In Information Systems Research Using Partial Least Squares. *JITTA: Journal of Information Technology Theory and Application*, 11(2), 5.
- Bandura, A. (1974). *behavior Theory.pdf* (pp. 859–869).
- Bank Rakyat. (2015). *NPL Report 2015 -Rural Development Financing-i Scheme*.
- Berita Harian. (2018). *AIM alu-alukan penegasan PM perkasa wanita dalam perniagaan*. Sinar

- Karangkraf Sdn. Bhd.  
<https://www.sinarharian.com.my/article/4741/BERITA/Nasional/AIM-alu-alukan-penegasan-PM-perkasa-wanita-dalam-perniagaan>
- Bernama. (2018). *Tekun Nasional's NPL hits 37.82 pct of total debts*.  
<http://www.bernama.com/en/news.php?id=1621393>
- Besley, T., & Coate, S. (1995). Group lending, repayment incentives and social collateral. *Journal of Development Economics*, 46(1), 1–18. [https://doi.org/10.1016/0304-3878\(94\)00045-E](https://doi.org/10.1016/0304-3878(94)00045-E)
- Bhatt, N., & Tang, S. Y. (2002). Determinants of Repayment in Microcredit: Evidence from Programs in the United States. *International Journal of Urban and Regional Research*, 26(2), 360–376.
- Bichanga, W. O., & Aseyo, M. L. (2013). *Causes of Loan Default within Micro Finance Institutions in Kenya*. 04(12), 316–335.
- C.C Eze, U. . I. (2007). *Determinants of loan repayment under the indigenous financial system in southeast Nigeria*. 2(2), 116–120.
- Calvin, O. L., & McDowell, J. J. (2016). Extending unified-theory-of-reinforcement neural networks to steady-state operant behavior. *Behavioural Processes*, 127, 52–61. <https://doi.org/10.1016/j.beproc.2016.03.016>
- CEIC. (2017). *Malaysia Non Performing Loans Ratio*.  
<https://www.ceicdata.com/en/indicator/malaysia/non-performing-loans-ratio>
- Central Bank of Malaysia. (2012). *Guideline On Classification Of Impaired Loans/Financing And Provisioning For Bad And Doubtful Debts*.
- Chamboko, R., & Guvuriro, S. (2022). On the predictors of loan utilization and delinquency among microfinance borrowers in Zimbabwe: A Poisson regression approach On the predictors of loan utilization and delinquency among microfinance borrowers in Zimbabwe: A Poisson regression approach. *Cogent Economics & Finance*, 10(1), 0–13. <https://doi.org/10.1080/23322039.2022.2111799>
- Chaudhary, M. A., & Ishfaq, M. (2003). Credit worthiness of rural borrowers of Pakistan. *The Journal of Socio-Economics*, 32, 675-684. *The Journal of Socio-Economics*, 32, 678–684.
- Chin, & Newsted, P. R. (1999). *Structural Equation Modeling Analysis With Small Samples Using Partial Least Squares*. (In R. H. H, Vol. 2, pp. 307–342). SAGE Publication.
- Chin. (1998). *The Partial Least Squares Approach To Structural Equation Modeling*. In *Modern Methods For Business Research* (Vol. 295, pp. 295–336).
- Chong, F., Morni, F., & Suhaimi, R. (2010). Demographic factors and repayment performance of NBFIs customers in Kuching. *CSSR 2010 - 2010 International Conference on Science and Social Research, C SSR*, 1340–1345. <https://doi.org/10.1109/CSSR.2010.5773748>
- Dawson, M. E., & F. (1974). *The role relational awareness in human autonomic discrimination classical conditioning*.
- Dixon, R., Ritchie, J., & Siwale, J. (2006). Microfinance: accountability from the grassroots. *Accounting, Auditing & Accountability Journal*, 19(3), 405–427. <https://doi.org/http://dx.doi.org.ezlibproxy.unisa.edu.au/10.1108/09513570610670352>
- Donahoe, J. W., Burgos, J. E., & Palmer, D. C. (1993). A selectionist approach to reinforcement. *Journal of the Experimental Analysis of Behavior*, 60(1), 17–40. <https://doi.org/10.1901/jeab.1993.60-17>
- Dulany, D. E. (1968). *Awareness, rules, and propositional control: A confrontation with S-R behavior theory* (& D. H. (Eds. . In T. Dixon (ed.)).
- Fam, K. S., Waller, D. S., & Erdogan, B. Z. (2004). The influence of religion on attitudes towards the advertising of controversial products. *European Journal of Marketing*, 38(5/6),

- 537–555. <https://doi.org/10.1108/03090560410529204>
- Fayyad, M. (2013). Classification of Contractual Agreements in Comparative and Islamic Jurisdictions: Does it Make Any Sense? *Arab Law Quarterly*, 27(3), 203–229. <https://doi.org/10.1163/15730255-12341256>
- Galindo, L., Rizzi, A., & Rhyne, E. (2015). *What Happens to Microfinance Clients who Default ? January*.
- Gefen, Straub, D., & Boudreau, M.-C. (2000). *Structural Equation Modeling And Regression: Guidelines For Research Practice. Communications Of The Association For Information Systems*. 4(1), 7.
- Ghatak, M., & Guinnane, T. W. (1999). The economics of lending with joint liability: Theory and practice. *Journal of Development Economics*, 60(1), 195–228. [https://doi.org/10.1016/S0304-3878\(99\)00041-3](https://doi.org/10.1016/S0304-3878(99)00041-3)
- Godquin, M. (2004). Microfinance repayment performance in Bangladesh: How to improve the allocation of loans by MFIs. *World Development*, 32(11), 1909–1926. <https://doi.org/10.1016/j.worlddev.2004.05.011>
- Hanif, M., Hassan, A., Muhamad, A. I., Mansor, R., Hanif, M., Hassan, A., & Muhamad, A. I. (2022). *Bibliometric Analysis of Published Literature on Repayment Behaviour in Microfinance Bibliometric Analysis of Published Literature on Repayment Behaviour in Microfinance*. 1(10), 703–717. <https://doi.org/10.6007/IJARBSS/v12-i10/15252>
- Hassan, M. H. A., & Yahya, S. (2020). Determinants Of Repayment Behaviour In Islamic Microfinance Programs: Case Study Of The Rural Economy Funding Scheme. *3rd UUM International Islamic Business Management Conference 2020 (IBMC 2020)*, 12–31.
- Henseler, Ringle, C. M., & Sinkovics, R. R. (2009). *The Use Of Partial Least Squares Path Modeling In International Marketing. In New Challenges To International Marketing* (pp. 277–319). Emerald Group Publishing Limited.
- Huitt, W., & Hummel, J. (1997). *An Introduction to Operant (Instrumental) Conditioning. Educational Psychology Interactive*. <http://www.edpsycinteractive.org/topics/behavior/operant.html>
- Idama, A. (2014). *The Causes of Loan Default in Microfinance Banks : The Experience of Standard Microfinance Bank , Yola , Adamawa*. 16(11), 74–81.
- Ismail, S. (2011). *Students ' Attitude to Educational Loan Repayments : A Structural Modelling Approach*.
- KKLW. (2018). *Laporan Prestasi Pembiayaan SPED*.
- KKLW. (2019). *Prestasi Skim Pembiayaan Ekonomi Desa*.
- Kodongo, O., & Kendi, L. G. (2013). Individual lending versus group lending: An evaluation with Kenya's microfinance data. *Review of Development Finance*, 3(2), 99–108. <https://doi.org/10.1016/j.rdf.2013.05.001>
- Kohansal, M. R., & Mansoori, H. (2009). Factors Affecting on loan Repayment Performance of Farmers in Khorasan-Razavi Province of Iran. *Conference on International Research on Food Security, Natural Resources Management and Rural Development*, 1–4. <http://www.tropentag.de/2009/abstracts/full/264.pdf>
- Lewis, M. K. (2006). Accountability and Islam. *Fourth International Conference on Accounting and Finance in Transition*, 1–16.
- Maiangwa, M. G. (2012). *Group versus Individual Lending: A Review*. 8(1), 40–51.
- Management Study Guilde. (2013). *Reinforcement Theory of Motivation*. Management Study Guilde 2013; Schmidt 2014)
- Market-Led Solutions for Financial Services. (2017). *Optimising performance and efficiency series: Individual Lending*. [http://www.microsave.net/files/pdf/Individual\\_Lending\\_Booklet.pdf](http://www.microsave.net/files/pdf/Individual_Lending_Booklet.pdf)

- Mekonnen, M. (2015). *Determinants Of Loan Repayment Performance Of Rural Women Based Saving And Credit Cooperatives' Members: The Case Of Dire Dawa Administration*.
- Michael Haenlein, A. M. K. (2004). A beginner's guide to partial least squares analysis. *Taylor & Francis*, 3(4), 283–297. [https://doi.org/10.1207/s15328031us0304\\_4](https://doi.org/10.1207/s15328031us0304_4)
- Mokhtar, S. H. (2011). *Microfinance Performance in Malaysia*. 134.
- Morduch, J. (2006). *Smart subsidies*. *ESR Review*, 8(1), 10.
- Mosahab, Rahim, Osman Mahamad, T. R. (2010). Service Quality , Customer Satisfaction and Loyalty : A Test of Mediation. *International Business Research*, 3(4), 72–80. <https://doi.org/10.5539/ibr.v5n1p3>
- Nawai, N. B. M. N. B. M. S. (2013). Determinants of Repayment Performance in Microfinance Programmers in Malaysia. *Proceedings of the 2nd Applied International Business Conference (AIBC2013)*, 11(December), 7–8.
- Nawai, N., & Shariff, M. N. M. (2012). Factors Affecting Repayment Performance in Microfinance Programs in Malaysia. *Procedia - Social and Behavioral Sciences*, 62, 806–811. <https://doi.org/10.1016/j.sbspro.2012.09.136>
- Nazri, M., Ahmad, M., & Yusoff, A. (2011). The Concept of Rewards and Punishments in Religion: A Special Reference to Kitab Al-Adab of Sahih Bukhari. *World Journal of Islamic History and Civilization*, 1(4), 249–254. [http://www.idosi.org/wjihc/wjihc1\(4\)11/5.pdf](http://www.idosi.org/wjihc/wjihc1(4)11/5.pdf)
- Okorie, A. (1986). Major determinants of agricultural smallholder loan repayment in a developing economy: Empirical evidence from Ondo State, Nigeria. *Agricultural Administration*, 21(4), 223–234. [https://doi.org/10.1016/0309-586X\(86\)90040-3](https://doi.org/10.1016/0309-586X(86)90040-3)
- Otero, M. (1999). Bringing Development Back , into Microfinance. *Journal of Microfinance*, 1(1), 1–10.
- Oxford Dictionary. (2017). *English Oxford Living Dictionary*. <https://en.oxforddictionaries.com/definition/accountability>
- PNB. (2018). *PNB net income up 17% to P9.6B in 2018*. <https://www.pnb.com.ph/index.php/pnb-net-income-up-17-to-p9-6b-in-2018>
- Robinson, M. S. (2001). The Microfinance Revolution Sustainable Finance For The Poor. *The World Bank, Washington, D.C.*, 9.
- Roslan, a. H. K., & Abd, M. Z. (2009). Determinants of Microcredit Repayment in Malaysia : The Case of Agrobank. In *Humanity & Social Sciences Journal* (Vol. 4, pp. 45–52).
- Samer, S., Majid, I., Rizal, S., Muhamad, M. R., Sarah-Halim, & Rashid, N. (2015). The Impact of Microfinance on Poverty Reduction: Empirical Evidence from Malaysian Perspective. In *Procedia - Social and Behavioral Sciences* (Vol. 195, pp. 721–728). Elsevier B.V. <https://doi.org/10.1016/j.sbspro.2015.06.343>
- Schmidt, K. C. (2014). *Work Attitudes and Job Motivation*. <https://wikispaces.psu.edu/display/PSYCH484/3.+Reinforcement+Theory>
- Schultz, W. (2006). Behavioral Theories and the Neurophysiology of Reward. *Annual Review of Psychology*, 57(1), 87–115. <https://doi.org/10.1146/annurev.psych.56.091103.070229>
- Schultz, W. (2015). Neuronal Reward and Decision Signals: From Theories to Data. *Physiological Reviews*, 95(3), 853–951. <https://doi.org/10.1152/physrev.00023.2014>
- Shu-Teng, L., Zariyawati, M. A., Suraya-Hanim, M., & Annuar, M. N. (2015a). Determinants of Microfinance Repayment Performance: Evidence from Small Medium Enterprises in Malaysia. *International Journal of Economics and Finance*, 7(11), 110. <https://doi.org/10.5539/ijef.v7n11p110>
- Shu-Teng, L., Zariyawati, M. A., Suraya-Hanim, M., & Annuar, M. N. (2015b). Determinants of Microfinance Repayment Performance: Evidence from Small Medium Enterprises in Malaysia. *International Journal of Economics and Finance*, 7(11), 110.

- <https://doi.org/10.5539/ijef.v7n11p110>
- Silwal, A. (2003). *Repayment performance of Nepali village banks*.  
[http://www.sccs.swarthmore.edu/~silwal/Repayment Performance of Nepali VBs.pdf](http://www.sccs.swarthmore.edu/~silwal/Repayment%20Performance%20of%20Nepali%20VBs.pdf)
- Sinha, D. (1998). Economic growth and government expenditure in China. *Business*.
- Skinner, B. F. (1931). The concept of the reflex in the description of behavior. *Journal of General Psychology*, 5, 427–458.
- Sun, T. (2018). *PUNB targets to lower non-performing loans*. SUN MEDIA CORPORATION SDN BHD. <https://www.thesundaily.my/archive/punb-targets-lower-non-performing-loans-JUARCH582133>
- Sunil Sangwan, N. C. N. & D. S. (2020). Loan repayment behavior among the clients of Indian microfinance institutions: A household-level investigation. *Journal of Human Behavior in the Social Environment*, 30(4), 474–497. <https://doi.org/10.1080/10911359.2019.1699221>
- suraya Hanim Mokhtar, G., & Gan, N. & C. (2012). Determinants of microcredit loans repayment problem among microfinance borrowers in Malaysia. *International Journal of Business and Social Research (IJBSR)*, 2, 33–45.
- Utusan. (2018). *NPL Tekun Nasional meningkat kepada 37.82 peratus daripada jumlah pinjaman*.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: a comparison of approaches قياس أداء الأعمال في مجال البحوث الاستراتيجية: المقارنة بين النهج. In *The Academy of Management Review* (Vol. 11, Issue 4, pp. 801–814). <https://doi.org/10.2307/258398>
- Wahi, M. F., & Sabli, H. M. (2022). *The Relationships Between Dynamic Incentives Towards Microenterprise Firm Performance in Malaysia*. 4(2), 26–34.
- Walker, P. (2002). Understanding Accountability: Theoretical models and their implications for Social Service Organisations. *Social Policy and Administration*, 36(1), 62–75. <https://doi.org/10.1111/1467-9515.00270>
- World Bank Group. (2017). *FINANCE & MARKETS GLOBAL PRACTICE Financial Inclusion in Malaysia*. May. <http://documents.worldbank.org/curated/en/703901495196244578/pdf/115155-WP-PUBLIC-GFM08-68p-FIpaperwebversion.pdf>