IBN HALDUN UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF ECONOMICS

MASTER'S THESIS

EVALUATING THE IMPACT OF MICROFINANCE ON HOUSEHOLD INCOME AND BUSINESS SUSTAINABILITY: EVIDENCE FROM AFGHANSITAN

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by
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A thesis submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of Master of Arts in Economics

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ÖZ

MİKROFİNANSMANIN HANEHALİ GELİRİ VE İŞLETME SÜRDÜRÜLEBİLİRLİĞİ ÜZERİNDEKİ ETKİSİNİN DEĞERLENDİRİLMESİ: AFGANİSTAN'DAN KANITLAR

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Mikrofinans gelişmekte olan ülkelerde hızla büyümüş ve ekonomik kalkınma ve yoksulluğun azaltılmasındaki rolüyle uluslararası kabul görmüştür. Afganistan ekonomik güçlendirme ve girişimciliğe yönelik mikrofinans hizmetlerinin kırsal kesimde ve yetersiz hizmet alan sektörlerde giderek daha fazla görüldüğü ülkelerden biridir. Resmi finansal hizmetlere yetersiz erişimin küçük işletmelerin kurulmasını engellediği Afganistan'da, mikrofinans, finansal katılım için potansiyel bir çözümdür. Çok sayıda çalışma, mikrofinansın özellikle de çok düşük sosyo-ekonomik ve istikrarsız siyasi ortama sahip olan Afganistan'ın kırsal ekonomisindeki etkilerini incelemiştir. Bu araştırma, mikrofinansın Afganistan kırsalındaki küçük işletme girişimcilerinin girişimcilik performanslarını, finansal yönetimlerini, istihdam yaratmalarını ve hane halkı istikrarını geliştirmelerine nasıl yardımcı olduğunu ele almaktadır. Bu çalışma, nicel bir kesitsel veri kullanarak önemli bir literatür boşluğunu doldurmaktadır. Çalışmada 211 mikrofinans alıcısının verileri kredi büyüklükleri, kredi süresi ve girişimcilik performansının demografik özellikleri asıl etkilediği OLS regresyon modelleri kullanılarak tahmin edilmiştir. Bulgular, mikrofinansa erişimin şirket kârlarını artırdığınıAfganistan, iş sürekliliğini ve hane gelirini iyileştirdiğini göstermektedir. Girişimcilere finansal hizmetler sağlandıkça, işletmeler daha sürdürülebilir hale gelebilir ve büyüyebilir. Araştırma, sektöre özgü ihtiyaçları destekleyen uzman mikro finansman programlarını teşvik etmektedir. Bu sonuçlar

politika yapıcılar, kalkınma ajansları ve mikrofinans kurumları için somut rehberlik sunmakta, mevcut eşitsizliklerle mücadele etmek ve ekonomik dayanıklılığı artırmak için yeni yaklaşımlara duyulan ihtiyacı vurgulamaktadır.

Anahtar Kelimeler: Afganistan, Dijital Finans, Hane Halkı, İş, Mikrofinans, Sürdürülebilirlik.

ABSTRACT

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Microfinance grew rapidly in emerging countries and got international recognition for its role in economic development and poverty alleviation. Afghanistan is also one of those countries where microfinance services for economic empowerment and entrepreneurship is increasingly observed in the rural and underserved sectors. While, in Afghanistan, where inadequate access to formal financial services hampers small business creation, microfinance is a potential solution for financial inclusion. Multiple studies have examined the effects of microfinance in Afghanistan's rural economy, especially in the face of a very low socio-economic and political landscape, and in this research addresses how microfinance helps small business entrepreneurs in rural Afghanistan to improve their entrepreneurial performance and household stability. The paper fills a significant literature gap using a quantitative cross-sectional data and OLS regression models. Using the data of 211 microfinance recipients, the models estimate how loan sizes, duration of loan, age, and education level affect business sustainability and household income of those people who received microfinance loan, and the findings suggest that access to microfinance increases the duration of businesses and boosting household income by receiving microfinance loan. The more entrepreneurs who were provided with financial and non-financial services, the more businesses were able to sustain and expand, and the present research calls for specialized microfinance programs catering to the needs of this sector and integrating digital financial services

to improve accessibility, and these results offer concrete guidance for policymakers, development agencies, and microfinance institutions in how new approaches can best be used to tackle existing inequalities and improve economic resilience.

Keywords: Afghanistan, Business, Digital Finance, Household, Microfinance, Sustainability.

DEDICATION

I dedicate this thesis to my beloved family, whose unconditıonal support, prayers, and encouragement have given me the strength to move forward at every stage of this journey, and their unwavering belief in me is the greatest motivation. I also want to extend my heartfelt thanks to my mentor and instructors for the support and guidance throughout the process, for their patience, and for the myriad of valuable lessons learned through this work. Their support has really made this achievement possible.

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Shabir Ahmad SALIH

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LIST OF SYMBOLS AND ABBREVIATIONS

Y	Average Monthly Income
Z	Years of Business Operations
X_1	Age of the Respondent
X_2	Gender of the Respondent
X_3	Education Level of the Respondent
X_4	Loan Amount Received from Microfinance Institution
X_5	Duration of Microfinance Loan
β_1	Coefficients of the Independent Variables
u	An Error Term

CHAPTER I

INTRODUCTION

Microfinance is the provision of small financial services such as loan, saving and insurance to low-income individuals who typically don't have access to traditional banking. It aims to empower those individuals who are suffering from worse economic condition. The concept of Microeconomic goes back to 1970s when Dr, Mohamad Yonus, a Bangladishi economist began providing small loan to impovershed people in rural areas of Bangladish. After that it became a global model and got international recognition for the crucial role playing in economic development and poverty reduction.

In emerging economies such as Afghanistan, microfinance plays an increasingly important role, because it provides small-scale financing loans, savings accounts and insurances to people who are unable to afford it. Access to traditional banking systems in the countryside is limited. Small business owners are not using formal credit or their own personal savings to run their businesses. For, microfinance institutions (MFIs) introduced loans as a potential driver of growth which empower these small business owners by helping them to expand theirs business (Ahmed & Hossain, 2019). In Afghanistan, microfinance has become a key tool of economic stability and poverty reduction, especially in rural and conflict-ridden areas where formal financial services are severely limited.

The nation's unique socioeconomic and geopolitical circumstances influence the microfinance landscape, posing both opportunities and obstacles for development.

Following decades of conflict that devastated the nation's banking system and economy, Afghanistan's microfinance sector began to take shape in the early 2000s (World Bank, 2021). In a historic ruling, the Microfinance Investment Support Facility for Afghanistan (MISFA) was created in 2003. MISFA was established to offer

financial and technical support to microfinance institutions (MFIs) to reach unbanked communities. It gives funding, technical assistance and capacity buliding trainings to microfinance institutions. MISFA has worked in collaboration with several MFIs and over the years helped them in expanding microfinance across the nation (World Bank (2021).

According to the United Nations Development Programme (UNDP), Afghanistan microfinance programmes are primarily aimed at rural populations, where access to bank services is limited and financial marginalisation is common. As per UNDP (2023) report, rural communities represented almost three-quarters of Afghanistan's microfinance borrowers. According to this organization, microfinance played a significant role in supporting livestock, farming and small-scale industries that constitute the heart of the rural economy. As per the ADB report, as of 2022, Afghanistan's microfinance market had 1.3 million active clients and women made up almost 38 per cent of its borrowers. Afghanistan's microfinance sector has a total loan portfolio of about $180 million as of 2022. The loans largely went to non-income-generating pursuits, like agriculture, crafts and retail. The loan sizes are still low between $300 and $800 on average. But, they are large enough for rural business owners to purchase valuable resources and scale up their operations (World Bank, 2021).

Despite, these developments Afghanistan's microfinance sector faced some challenges. The United Nations Office for the Coordination of Humanitarian Affairs (OCHA), points out that microfinance works in an environment that is heavily impacted by conflict and political instability (OCHA, (2021). Most MFIs operate in high-risk regions where security threats and poor infrastructure prevent them from accessing distant locations. Furthermore, rural populations have high levels of illiteracy and financial insecurity that make effective use and repayment of loans challenging. But, despite of these setbacks, there is still the potential to shore up Afghanistan's microfinance ecosystem, moreover, World Bank and ADB also emphasized the importance of combined microfinance programmes, whereby financial services are linked to capacity-building efforts.

Microfinance services are particularly vital for rural entrepreneurs, addressing the gap created by an underdeveloped formal banking infrastructure. Many small business owners in Afghanistan do not meet the eligibility criteria for conventional loans, making microfinance a critical resource for financing working capital and supporting business growth (Dichter & Harper, 2007). On the other hand, entrepreneurial outcomes encompass measurable indicators of success for business ventures, such as profitability, business growth, employment generation, and market expansion.

Furthermore, non-financial outcomes, including improved business skills, access to new markets, and enhanced financial management practices are essential components of entrepreneurial success (Cull, Demirgüç-Kunt, & Morduch, 2009). In rural parts the entrepreneurial gains are often perceived as higher household income, business growth and product or services diversifications, along with higher employment. (De Mel, McKenzie, & Woodruff, 2008).

An analysis on the role played by microfinance in empowering economies and in the reduction of poverty in Afghanistan was undertaken by Suleiman and Wali in 2014, with results indicating improvements in economic conditions and performance. Another analysis undertaken in 2004 indicated that microfinance in Afghanistan contributed to improved income for families and growth in companies, with empowerment in men, in addition to women, being on the foreground in such benefits. Additionally, analysis undertaken by Mahdavi in 2010 indicated that there is a linkage between microfinance loans in Afghanistan, with resulting improvements in financial stability for those obtaining loans, in addition to improvements in income levels, with enhanced job opportunities being realized. Finally, analysis undertaken by Jalal and Ahmadi in 2017 indicated improvements in financial stability resulting from microfinance.

Microcredit's ability to reduce poverty in Bangladesh is still up for debate. Depending on the approach used to evaluate impact, data gathered by the World Bank in 1992 has produced conclusions that vary greatly. According to Khandker (1998), household spending rises by 18 taka for every 100 taka borrowed to a woman; intriguingly, the figure is 2 taka if the same amount is lent to a guy. The author claims that after adjusting for other variables, households that have been BRAC members for up to

three years have a 15% reduction in moderate poverty and a 25% reduction in ultra-poor. It's interesting to note that this rate of poverty reduction seems to be declining as the length of membership increases. For example, for homes that have been members for over five years, the absolute rate of decline was 18% for moderate poverty and 9% for ultra-poor, indicating that the annual pace of poverty alleviation was significantly lower than for households with up to three years of membership. Additionally, considering that the average cumulative loan size (3348 taka) in the "less than three years" category is lower than Khandker's findings also imply that the poverty in the "five years-plus" category (6567 taka). As the total loan amount for BRAC increases, the reducing impact of credit decreases. In the case of the two other microcredit programs in Khandker's analysis, Grameen and BRDB3, where the rate of decrease in the incidence of poverty rises with cumulative loan size, his findings seem more logical.

This research is conducted to investigate the impact of microfinance services on the growth and sustainability of microfinance receiving small businesses and families, the data for the research has been collected by the help of two NGOs, Afghan Amputee Bicyclists for Rehabilitation and Recreation (AABRAR), and Youth Health and Development Organization (YHDO) through a questionnaire from 211 recipients Ordinary least square (OLS) regression has used to analyse this effect.

The relevance of the current research relies on its efficacy in tackling an imperative issue in the Afghan financial environment, such as financial inclusion for small entrepreneurs. It tends to examine the importance of microfinance in filling some gaps in improving their performance, empowering financial literacy, and accordingly, contributing to enhanced sustainable economic development for the rural region. Rural entrepreneurship acts as the foundation for economic stability, alleviation of poverty, and achievement of a conducive living life. Moreover, it will attempt to gain concrete information on tailoring microfinance services to incorporate their most appropriate needs for rural entrepreneurship, such as enhanced financial stability for rural entrepreneurship, due to the significance in microfinance emphasizing resistance and autonomy for less-accessed groups. It will deal mostly with addressing its research in connection with its impact on, firstly, family average income levels due to microfinance services, followed by its treatment on, secondly, its impact on the

viability of subscribed businesses. Both will be examined in their general overarching financial contexts due to its influence in general on rural regions in Afghanistan.

The thesis then organizes the subsequent section in the following manner: Chapter two provides a detailed explanation of the theoretical and empirical framework. A literature review is also included to analyze and evaluate any gaps existing in the current research. Chapter three offers a detailed scrutiny of the data source, methodology, and developing variables process. Chapter four provides a detailed analysis of the estimation procedure and summarises the obtained findings. The results are summed up in chapter 5 as under.

CHAPTER II

LITERATURE REVIEW

The impact of microfinance on small-business owner entrepreneurial success has generated much academic debate. This literature review leverages existing literature from multiple fields to examine how microfinance is improving entrepreneurship, average family income and business sustainibility. The investigation also reviews the strengths and weaknesses of microfinance initiatives to gain a holistic picture of the role that microfinance can play in rural development in Afghanistan.

2.1. Theoretical Framework

Microfinance theory used as a conceptual framework in order to identify the effect of financial services on entrepreneurs in rural parts of Afghanistan. This theory is related to the way of micorfinance institution (MFIs) offer money, including loan, saving and inssurance, to people or companies that don't have access to banks. As per this theory, microfinance promote entrepreneurship by providing capital to business development to decrease poverty, produce income and empowers the entire economy.

Microfinance theory is often credited to the Nobel Peace Prize-winner Muhammad Younus, most famously for his revolutionary work with the Grameen Bank. Yunus' microcredit initiative is designed to help the poor, particularly women, receive microloans to start or grow their businesses. Microfinance helps poor people acquire financing to improve their conditions of living, develop sustainable businesses and end poverty (Yunus, 1999). The theory is based on the idea that providing financial services to the poor would encourage entrepreneurship and broad economic and social progress. Several studies from other countries showed the impact of microfinance on entrepreneurship and economic growth.

With regard to the issue of microfinance and business sustainability, for instance, a research study undertaken by Khandker (2005) within the Bangladeshi environment discovered that the offering of microfinance services led to the re-investment of profits and the subsequent growth of businesses. The study fulfilled the basic theory of microfinance because, if funds are channeled into businesses, then the effect of poverty could be diminished. Similarly, within the environment of India, a study undertaken by Morduch (1999) focused on the relationship between microfinance and business sustainability, and the researcher noted that firms that accessed and utilized the loans provided by microfinance providers managed to develop and expand their businesses and also employ more workers so that these businesses could be sustained over time, furthermore, the importance of the research work continues to emphasize the importance of microfinance and the attainment of economic stability, both individually and collectively, additionaly, the study adds strength to the theory of microfinance and serves to fulfill its basic premise that with the provision of microfinance loans, the effect of poverty could be diminished since businesses shall be enabled to develop and grow, moreover, a significant study undertaken by other researchers, namely Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2009), is worth noting because the authors attempt to evaluate the efficiency and importance of microfinance within various geographical locations. The authors of the study observe that microfinance institutions (MFIs), through their operations and programs, attempt to ensure that people living below the poverty line and not normally affiliated with any banking service are able to obtain small loans, savings accounts, and insurance services. The authors further observe that the effectiveness of microfinance programs is achieved if a balance between competition and regulation is achieved.

These findings above align with other studies globally that found that microfinance not only enhanced business growth but also the development of the local community's economy.

2.2. Impact of Microfinance on Average Family Income

Microfinance assumed a very important role within the empowerment of rural business owners through the provision of funds that gave them the capability to begin and

expand businesses, thus offering jobs. This issue will highlight the preceding studies and describe the effect of microfinance on the job sector.

Microfinance has always been recognized for creating jobs, mostly within the rural and undeveloped sectors. The effect of microfinance concerning the empowerment of women to open businesses that employ the local population within rural Ghana was examined by Ganlea, Afriyie, and Yeboah (2015). The study revealed that microfinance not only enabled the creation of business but also jobs within the family and the community, thus contributing to the local economy (Ganlea, Afriyie, & Yeboah, 2015).

In Afghanistan, where job opportunities are largely unavailable, microfinance provides an alternative route to work by allowing people to enter the entrepreneurial world. When Hermes and Lensink (2011) conducted a cross-national study of South Asia, including Afghanistan, they observed that the employment generated through microfinance improves household incomes and economic growth, and this underscores how transforming microfinance can be effective in decreasing unemployment and expanding income opportunities in rural Afghanistan where access to capital is often limited (Hermes & Lensink, 2011).

More broadly, Mosley and Hulme (1998) searched underserved countries in Bolivia and Bangladesh about the role of microfinance in supporting self-employment. They focoused that microfinance programs helped people set up and run microenterprises – the foundation of earning income in rural environments where formal employment markets have not yet developed. This is especially true in Afghanistan, where microfinance can be an essencial source of self-employment and microenterprise support (Mosley & Hulme, 1998).

In addition, the savings structures that many microfinance institutions (MFIs) offer encourage financial planning and risk management. In Ghana, according to Ganlea, Afriyie and Yeboah (2015), microfinance schemes also encourage borrowers to save a percentage of their income. Their goal was to determine whether savings practices encouraged by MFIs improved entrepreneurs' financial security in rural Ghana.

Imai, Arun, and Annim (2010) fully investigated the effects of microfinance on household income, using panel data from India. Their results found a strong and positive relationship between microfinance access with average household income, especially for poor rural households. The study concluded that in addition to smoothing income variability, microfinance contributes to capital for income-generating activities and general household welfare. Bhuiyan (2011) analyzed microfinance clients in Bangladesh and discovered that borrowers who underwent financial literacy training were more advantageous and more financially stable than those who did not have training. His research aimed to investigate whether financial literacy training elements associated with microfinance programs helped improve the financial literacy of small business individuals for rural areas of Bangadesh.

The fundamental idea behind microfinance is to help the underprivileged escape poverty while also generating a steady profit for those who offer microloans and other microfinancial services. The social impact of poverty reduction and the MFIs' financial sustainability are referred to as the "double bottom line." In the process, it is envisaged that this trend will help a least developed country to establish mature and inclusive financial system. However, the balancing effort of obtaining these two aims, frequently opposing by nature, is not straightforward. Putting more emphasis on social dimension may bring detrimental or unintended outcomes such as dependence on subsidy, lesser outreach or lack sustainability; equally, an emphasis on sustainability may redirect the attention on the poor to profitability of the MFIs.

In post-conflict contexts, such as with Afghanistan, microfinance is even more critical. In post-conflict countries like Rwanda and South Sudan, it has been shown that microfinance not only promotes economic recovery but also increases self-sufficiency, thereby reducing humanitarian reliance. In Afghanistan, a similar approach could assist people to rebuild their livelihoods, reduce unemployment, and promote social and economic stability (Mayoux, 2001). Swain and Varghese (2009) examined the role of microfinance in improving the living standard of families in India with self-help groups (SHGs). Among other findings, results showed participants in SHGs resulted in an increase in family income by allowing members to access loans, if approved, for small-scale businesses and agriculture investments, and the study also emphasized that

microfinance is a valuable instrument to increase average household income and lessen susceptibility to poverty.

Microfinance related to Afghanistan's agricultural industry is not bad either. Through microfinance, small farmers who do not obtain traditional credit can invest in seeds, implements, and labour to maximize production and provide seasonal jobs. Researchers such as Hulme and Arun, in their 2009 study, emphasized how significant agricultural microfinance is to the rural economies for poverty alleviation within an agricultural society like Afghanistan.

Though there are benefits associated with it, there are challenges. For example, Ahmed & Hossain (2019) listed high-interest rates and low financial literacy as problems that impede the effective part of microfinance loans in Bangladesh. Indeed, addressing these challenges through capacity-building programs and more inclusive financial policies can strengthen the performance of microfinance in creating jobs in Afghanistan, especially within the rural or less-developed areas.

According to a study by Zeller and Sharma, 2002, several developing countries have applied a microfinance scheme in order to raise family income levels across households that used microfinance services. The authors showed that access to small loans allowed families to diversify income sources, invest in productive assets, and improve financial independence. Their findings underlined the greater income-enhancement potential of microfinance, particularly in rural areas.

The study will conduct a quantitiave analysis by using ordinary least square model to assess the impact of microfinance on business sustainability and average family income. It will offer practical guidance to policymakers and microfinance institutions seeking to address these issues in Afghanistan.

2.3. Microfinance and Poverty Reduction

Microfinance has been widely recongnized as an effective tool for poverty reduction, particularly in emerging countries. By providing small loans and financial services to underserved populations, microfinance enabled indivuduals to start or expand

businesses. This section will explore the impact of MF on poverty reduction. It will explore the the previous literature in this field as well.

The main aim of microfinance is to reduce poverty by opening access to funds for those who are underprivileged. This model enables individuals and families especially in rural and marginalzed communities, to tackle credit obstacles and invest in sustainable income-generating activities. Mirofinance ins based on the premise that small loans, saving and financial services can impact economic stabiltiy and empowerment, thus reduction poverty. Numerous publications supported this hypothesis, provided solid support for its efficacy, and emphasised contextual variations that shaped the outcome. Yahaya et al. (2011investigated the effects of microfinance institutions on small enterprises in Kwara State, Nigeria. High interest rates and small loan amounts make it more difficult to eliminate poverty, according to the study, even while having access to microcredit improved income and the sustainability of firms. It suggested improving loan conditions to make them more effective. The effectiveness and reach of microfinance organisations were examined by Hermes et al. (2011). The study found in Bangladesh that microfinance had a moderate impact on poverty reduction, especially low-interest loans and improved financial inclusion. It underlined that microfinance operations need to become more efficient to have a greater impact.

Littlefield, Morduch, and Hashemi (2003) investigated the larger socioeconomic impacts of microfinance in rural Bangladesh. The authors identified a number of contributing factors to poverty alleviation through microfinance, including improved access to health and education, greater household economic resilience, and income generation. Microfinance families indicated that their household investments and savings (and thus the reliability of their income) had grown. The authors also reported that microcredit programs generated greater collaboration and networks of support among borrowers that led to community development overall. Thus, microfinance improves the overall socioeconomic conditions of communities, as well as individual households.

Kabeer (2005) advanced the concept of microfinance as a means of empowering the people and fighting poverty, mostly focusing on South Asia, with particular emphasis

onBangladesh and India. The author concluded that microfinance not only raised the living standards of the borrowers but also improved the incomes of households. Those households that acquired microfinance could afford to enhance the education and welfare of children and purchase food, clothing, and shelter. Women could also engage in income-generating activities that reduced gender discrimination and empowered them to make decisions within the households. In addition, the function of microfinance in reducing poverty within rural India was also examined by Imai et al. (2010). Since microfinance improved the incomes of the households, integrating it with larger loans as well as training on how to manage businesses improved its impact.

Afghanistan represents a country where poverty remains a common occurrence, especially for the rural population. As such, microfinance programs turn out to be very useful and effective in the fight against poverty. The economy of Afghanistan is centered on small farming and micro-businesses. These are two sectors that often require limited investment. With the use of microfinance programs that are specific to the sector, families are able to ensure that they are financially stable and are also able to invest in very profitable businesses. As explained by Hermes and Lensink (2011), microfinance programs are important since they result in the enhancement of economic growth through the provision of finance to households and small businesses so that new income streams are created. This is a common occurrence within the Afghan economy since the rural population earns income through a single source.

Microfinance also assists people in alleviating poverty not only economically but also socially and mentally. Microfinance provides the credit borrowers with the ability to make sound financial choices that ensure that the individuals achieve stability over time because the borrowers are empowered and thus able to escape the cycles of borrowing that the unofficial money lenders put them into. Microfinance credit, for example,t he institutions (MFIs) enable people to experience the sense of worth and freedom that will mitigate the suffering of the poor. The emotional benefits of these institutions are critical, given that the rates of insecurity and poor economic conditions are high in Afghanistan.

The efficiency of microfinance’s poverty alleviation, however, is not absolute and differs across various circumstances. As revealed in the study of micro finance

undertaken by Dichter and Harper (2007), factors that influenced the efficiency of microfinance, such as the size of the loan, interest, and the capability of the borrowers to handle debtors, have been identified and charted. These also have to be treated the same way in Afghanistan because most of the borrowers are operating within volatile markets and are not financially educated. Higher interest rates and complex loan repayment structures may be the demise of the efficiency of micro finance because you will go over the edge of debt and face financial stress. It is essential that the micro finance programs undertaken in Afghanistan are capable of helping the borrowers efficiently handle and manage the loan so that they are able to run the loan efficiently.

Microfinance has been broadly researched in terms of poverty reduction, increasing incomes, and creating jobs. Armendariz and Morduch (2010) note that microfinance provides the necessary capital for small business persons and farmers to apply productive technologies and expand their activities, leading to increased revenues and stability. As they note, higher incomes translate into new jobs, since companies need staff to support their expansion processes. As explained by Karlan & Zinman (2011),

Banerjee et al. (2015) reported that microfinance induces large increases in household income, with clients self-reporting higher levels of consumption and savings as well. In a series of RCTs across several developing countries, the authors attempted to test the overall impact of microfinance on people's well-being and found out that access to credit can have a positive impact, although a limited one, on the growth of income and financial stability.

Study in the Bangladeshi context, The Impact of Group-Based Credit Programs on Poor Households by Pitt and Khandker (1998), found that the intervention of microfinance both led to increases in the earnings of households and educational attainment, both of which impacted positively upon mobility. Continuing the theme, Rhyne (2000) found that the effect of the microfinance institution (MFI) led to growth within the local community through the development of business, thus creating jobs within the local community and establishing new markets. Lastly, the intervention of microfinance within sub-Saharan Africa led to the enhanced earnings of the rural community through the facilitation of farmers and small business owners having the

capacity and resources to expand and develop their businesses, according to Chen and Snodgrass (1999).

Microfinances aid the reduction of poverty among small business owners and farmers by allowing them to invest in technologies that improve production and help them expand and earn more revenues through these technologies. In the countryside In Afghanistan, farmers could utilize microfinance services for seeds, fertilizer, and farming equipment, which would improve production and revenues. Microfinance services could help small businesses, such as small-scale manufacturers and owners of stores, through marketing, training, and enhancing stocks, leading to more profits and sounder economies.

Microfinance is also used as a solution to alleviate poverty through the creation of jobs. Moreover, the microfinance-backed businesses are considered to be a source of additional jobs within the community. These jobs are considered a source of income for other households, thus contributing towards the effectiveness of microfinance programs to eradicate poverty within the community. World researchers revealed that the multiplier effect of jobs could be observed clearly within rural society because microfinance programs could be a stimulus for development within the community. The creation of jobs through microfinance programs might be a revolutionary aspect within Afghanistan, where poverty and a shortage of jobs are the basic reasons for the prevailing poverty within the community. Koshy (2023) presented the relationship between the level of jobs and the use of microfinance programs within Afghanistan. The level of jobs positively correlated with the use of microfinance programs but criticised the high interest and disparity of access. The study concluded that, to cure the socioeconomic aspects of Afghanistan, specific steps are required.

Apart from the direct financial benefits, microfinance also increases access to healthcare and education, which are two key aspects of alleviating poverty. Since microfinanced people consider education a way towards success, these people often invest in the education of their children. Moreover, microfinance could also be applied to reduce the cost of sickness, happiness, and the ability to pay for healthcare. Microfinance programs that are offering services could be a key component towards

alleviating poverty within Afghanistan, a region that lacks access to education and healthcare.

The effect of microfinance programs on income earnings and business profitability will be measured in the study and used to see exactly how microfinance programs might work towards decreasing the poverty level of the Afghani population. The study will also look into the way and degree to which factors such as the characteristics of borrowers and the nature of loan programs influence the foregoing effect. The importance of doing a research study into the effect of microfinance programs towards minimizing the level of poverty and towards achieving the related important and positive policy changes cannot be overestimated. The way and manner through which microfinance programs might be adjusted towards meeting the needs of the Afghani population towards minimizing poverty might be well illuminated through a thorough research study. Microfinance programs could be the key towards the emergence of a brighter and wealthy future society.

2.4. Microfinance and Business Sustainability

One of the major research fields within the microfinance community has been examining the impact of access to microfinance on business performance in terms of revenue generation, expansion and sustainability. Over the years, a great deal of research has looked at whether microfinance, by offering microfinance services to poor entrepreneurs, will lead to the success of small enterprises and thus, improve the economic status of the families themselves. Gyimah and Boachie (2018) sought to evaluate the impact of microfinance products on the expansion of small businesses in Ghana by utilizing a multiple regression model, they discovered that insurance had a less significant effect on growth than microloans, which were followed by savings and education. The report made clear how important microfinance is to helping small enterprises. In a study by Amin, Rai, and Topa (2003) examined the long-term impact of microfinance on the sustainability of small businesses in Bangladesh. Their study found that while microfinance significantly helped in starting businesses, sustainability depended on continued access to credit, business skills, and market conditions. They concluded that microfinance could promote business sustainability if combined with training and support services.

There are few economic models that explain the development of microfinance sector, of which is the role of enhancing the capacity of endogenous factors of production such as human capital or labour, and the other is increasing the exogenous factors such as financial capital of the poor and microenterprises. In conjunction with this, the poverty trap argument has also been employed and provides a stronger basis for strengthening exogenous factors or financial capacity in microfinance development. This is for instance presented by Sachs et al. (2004), who argue that the absence of domestic savings and rapid population expansion has intensified the poverty traps with the deterioration of capital and productivity, hence bad economic growth and advancement.

Kisaka and Mwewu (2014) employed regression analysis to assess the influence of microcredit, micro savings, and training on the growth of SMEs in Kenya. The paper reported that training showed no influence on business growth but that microcredit and savings did. Fauster (2014), using a comparative study, researched the influence of microfinance loans and training programs on the performance of small businesses in the Republic of Ghana. The findings of the research revealed that training and microloans significantly improved the performance of the company, especially concerning the growth of assets and sales. Nawaz (2010) also used a study to examine the influence of microfinance-led businesses concerning their survival over time within the Pakistani environment. The study found that the steady availability of microfinance programs significantly influenced the survival of small businesses and that borrowers who invested profits back into the business could survive for a longer period.

One of the earliest research projects on business profitability was conducted on Bangladesh by Khandker (2005), who investigated how microfinance could increase business income and better the economic status of low-income households. Khandker's research was intended to test whether access to microfinance services could lead to the reduction of poverty through increased business performance. He concluded that microfinance directly promoted the income and expansion of microbusinesses. Microfinance enabled business owners who took access to it to reinvest their profits in their businesses and invest in new equipment and production. These companies, therefore, not only increased revenue, but also generated

employment which was in turn a benefit to the local economy. Khandker's research showed that microfinance programmes could break the poverty cycle by offering low-income families an opportunity to earn predictable incomes and contribute towards the future growth of their businesses.

Moreover, Morduch (1999) researched the link between microfinancing and the sustainability of businesses using a study done in India. The researcher aimed to understand the role that microfinancing could play in ensuring the sustainability of small businesses and, more specifically, whether the loan obtained through microfinance institutions could lead to the sustainability of businesses. The study targeted microenterprise owners who received loans from microfinancing institutions and the business practices that these owners followed after the loan. The study revealed that microfinancing led to the enhancement of business sustainability because microfinance enabled the entrepreneur to expand the size of the business, hire more employees, and also diversify the items that the business sold.

Morduch also pointed out that the businesses that applied microfinance not only grew, but also showed good management practices. Microfinance lending also came with training and help related to business planning, budgeting, and management of finances that enhanced the business owners' management capacity. This capacity building helped them make sound decisions, utilize resources effectively, and deal with the markets and recessions even better. Microfinance not only aided growth but also enhanced the business acumen of the entrepreneurs so that their businesses could withstand the tests of time.

Moreover, microfinance also makes positive effects within the community, other than the positive influence of enhancing business revenues and growth. It provides jobs and increases incomes and the standard of living of people within the community through business growth and development of small businesses that employ people (Littlefield et al., 2003). Employment within the community is also a positive implication of business growth since the business owner hires people to work for the business.

The positive effect of microfinance can be observed in Afghanistan, where it has enhanced the efficiency of businesses that lack credit and financial services in rural areas. Researchers have found that the small business owners of Afghanistan, using the microfinance programs, are able to improve the size of business and also improve profits and contribute to the growth of the regional economy. The micro-businesses are considered the backbone of the rural economy and help improve the quality of life of the people. The microfinance program has played a very important role in improving the profit and viability of small businesses, and such programs are mostly used in the rural and poor parts of the population. The microfinance programs help small business owners break the barrier of finance and utilize the opportunity for the growth of the business. This is the engine of growth of the rural economy because, in those places, there is no finance system, and the small business owners are restricted (Khandker, 2005).

Moreover, microfinance institutions are also gradually expanding the scope of the services and products that will suit small businesses of different natures. For instance, there are microfinance institutions that are offering such goods that are focused on the agricultural sector, since it is the backbone of the Afghan economy, and the other is focused on micro-businesses of the trade and service sector within the cities. With such tailored loans meant for different industries, microfinance institutions are capable of maximizing the effectiveness of microfinance on business performance. Moreover, challenges are also present even if there are positive effects of microfinance on business growth and earnings.

These factors could result in a large number of businesses being deprived of the opportunity to access the services of microfinance institutions, thus leading to a poor performance of the microfinance sector. Additionally, issues related to the viability of microfinance institutions are yet to be addressed. Though microfinance institutions are essential for offering banking services to the unbanked, these institutions fail to survive due to political and economic uncertainties.

With all factors considered, microfinance has proved to be successful in enhancing the economic well-being of low-income households and the efficiency and growth of businesses. The studies undertaken by Khandker 2005 and Morduch 1999 outline the

visible gains of microfinance, which include business growth, management skills, and earnings. These above-mentioned gains ensure the economic well-being of states and communities beyond improving the standard of living of the entrepreneur. The effect of microfinance institutions might be even more pronounced when these institutions develop and enhance their skills.

The other argument is market failure theory, which claims that the poor has been shut out from economic growth and development due to the failure of commercial banks to provide them with capital (Armendariz and Morduch, 2005). The instance of Muhammad Yunus and Grameen Bank is a major example of this idea. So successful Grameen Bank now is practically hard to divorce microfinance from Grameen or Muhammad Yunus. Many later efforts to build microfinance banks follow the lending model introduced by Grameen Bank (Hermes and Lensink, 2007; Johnston and Morduch, 2008; Cull et al., 2009).

2.5. Microfinance and Business Profitability

Microfinance provides a source of hope for small businesses operating in rural Afghanistan where the lack of any meaningful infrastructure or financial opportunities has routinely discouraged business owners from pursuing their dreams. Business owners who have the benefit of microfinance can also expand their business, improve productivity, purchase processing equipment and buy raw materials. Bhuiyan (2011) indicated in a study that microfinance will provide a business owner with opportunities to eliminate financing constraints and improve competitiveness, which is essential in Afghanistan, where business owners more routinely than not find themselves working in a less than conducive environment when it comes to banking options. Microfinance also optimizes the potential of Afghan business owners and benefits the region as a whole by contributing to the overall prosperity of the region.

These profit-enhancing aspects of microfinance are not necessarily limited to the investment of the business itself. This also increases the capability of the entrepreneur to handle and organize his/her finances more systematically. These training and mentorship-based programs and loans combine well together to enable the entrepreneur to get the benefits of optimization and risk management and growth

opportunities. As Ledgerwood (1999) described, capacity-building programs incorporated into microfinance programs are normally beneficial for a sustainable business approach and a successful return on investment. The inclusion of financial knowledge within the program of microfinance could multiply benefits of the intervention itself because it not only provides the required loan but also equips the entrepreneur to take appropriate decisions.

Although these potential benefits appear obvious, it might be important to consider the external factors that might affect the ability of microfinance to positively improve the bottom line. As Morduch described in his study in 1999, there are factors such as the conditions of the marketplace that could greatly affect the contribution of microfinance to improvement. The owners of businesses, for instance, might be saddled with interest charges that could limit them from using the profit generated to grow the business. The second factor might be regional changes in the marketplace and political instability that could nullify the effects of microfinance Businessesoperating in Afghanistan are a good example of such a factor.

It is the abiltiy of microfinance to foster and revive local economies that makes microfinance capable of serving the business bottom line. As businesses grow, not only do the local businesses make more profits, but a second economy is also generated through the rising demand for local production and services. Mayoux (2001) highlighted the trickle effect of microfinance, which increases local economies and provides jobs through the success of businesses that are supported and sustained through microfinance. The trickle effect of microfinance could be a tremendous factor for Afghanistan's growth and security because of the stagnant local markets.

In case of Afghanistan, microfinance could also help solve sectoral problems. Farm businesses, for instance, which are the heart of Afghanistan's rural economy, are susceptible to seasonal fluctuations in income and capital requirements. MFIs that specialize in agricultural cycles could offer modular loan products designed around planting and harvesting times so that farmers could spend money on seeds, fertilisers and irrigation. Hulme and Arun (2009) also identified agricultural microfinance as essential for maintaining rural livelihoods and increasing farmer profitability – an approach that could be replicated in Afghanistan.

This study aims to explore the effects of microfinance on the profitability of rural Afghan entrepreneurs in terms of key performance indicators such as revenue, net income and return on investmentIt seeks to identify lessons and obstacles to success by examining the lives of microfinance recipients in Afghanistan. Additionally. To guarantee the most lucrative and long-lasting rural enterprise in Afghanistan, the research will therefore provide policymakers, microfinance organisations, and business owners with practical lessons.

This study could provide a roadmap that could be used to improve microfinance initiatives so that these are aligned with the challenges that exist in the Afghan business community. Microfinance could work towards creating a conducive environment that could help promote small businesses and get the country onto the path of sustainable development.

CHAPTER III

DATA AND METHODOLOGY

3.1. Data

This part explains the methodology used to assess the impact of microfinance on average family income, and Business sustainability in rural areas. It uses a quantitative research design and ordinary least square regressions to describe the correlation between dependent and independent variables.

3.2. Research Design

As a part of my study, I have collected primary data for the year 2024 month of October from 211 participants used a structured questionnaire designed in google form. The questionnaire comprises two main sections which are available in Appendex. The first section focuses on collecting personal demographic information such as age, gender, education and average family income while the second section delves in microfinance related details including loan size, duration of loan, years of business operation and other related informations. This comprehensive dataset will serve as a foundation for role of microfinance in fostering wealth level and business sustainability. The data has been collect through two local NGO's: Afghan Amputee Bicyclists for Rehabilitation and Recreation (AABRAR) and Youth Development and Health Organization (YDHO) which are active and located in Afghanistan.

3.3. Personal Information

Personal information refers to details about an individual that describe them. In this research, personal information includes age, gender, education level, and average monthly income. This section is very important as it collects demographic data and relevant business information of the respondents. It contains a questionnaire designed

to create a complete picture of each respondent. The questions are intended to capture the following data.

- **Age**: The age distribution of entrepreneurs can provide insight into entrepreneurship patterns in different generations. The age data is categorized into five groups: less than 20 years, 21–30 years, 31–40 years, 41–50 years, and above 50 years. Table 3.1 explains the frequency and percentage of all age categories.

Table 3.1. Age

Age	Frequency	Percentage
Less than 20	1	0.47
21-30	68	32.23
31-40	86	40.76
41-50	52	24.64
More than 50	4	1.90

- **Gender:** This demographic parameter permits analysing gender differences in access to microfinance and business success. In the survey, a total of 176 males and 35 females participated, as shown in Table 3.2 with the percentage level.

Table 3.2. Gender

Male	Percentage	Female	Percentage
176	83.41	35	16.59

- **Education Level:** Education is an important factor that affects business acumen and decision-making skills. The questions will measure the highest level of education respondents have completed. Table 3.3 shows the frequency and percentage of all education categories.

Table 3.3. Education Level

Education level	Frequency	Percentage
Uneducated	5	2.37
Primary education	63	29.86
Secondary education	68	40.28
Higher education	58	27.49

- **Years of Business Operation:** It would provide a measure of the experience of the entrepreneur, which could be used to determine if microfinance can make a difference. The breakdown reveals that most businesses operate for 4–6 years (38.86%), as the largest group, followed by 7–10 years of operation (27.49%). The representation is smaller for new business entrants (5.21%) and for those operating for over a decade (4.27%). This distribution indicates a substantial middle-level operational majority in the businesses. Table 3.5 summarizes the years of business operation.

Table 3.4. Years of Business Operation

Years of business operation	Frequency	Percentage
Less than one year	11	5.21
1-3 years	51	24.17
4-6 Years	82	38.86
7-10 years	58	27.49
More than 10 Years	9	4.27

3.4. Multiple Choice Questions

This form of evaluation questions presents a problem coupled with several answer options. The respondents are expected to choose the correct and more appropriate answer among these options.

These questions are designed to retrieve qualitative, detailed information on what the respondents experienced with microfinance and how it affects business outcomes. The questions in this regard are intended to be neutral and therefore easy to interpret. Key areas covered are:

- **Length of Time Using Microfinance:** This will reveal the length of time the respondents have utilized the microfinance services, which can give insight into patterns of dependency or growth.
- **Loan Received Size:** The comprehension of the scale of financial support will help in the evaluation of its impact on business performance.

3.5. Dependent Variable

Dependent variables are the results of the effect being measured in a given study; they depend on and vary with the different changes in independent variables.

- **Average Family income:** This refers to the average family income, which is applied in assessing how the prevailing factors affect it in the model.
- **Years of Business Operation:** This reflects the sustainability and stability of a business over time.

3.6. Independent Variable

An independent variable refers to that variable in a study which is changed or controlled to study its influence on the dependent variable. The following are the independent variables used in this research.

- Age.
- Gender.
- Education level.
- Average family income.
- Loan amount.
- Duration of microfinance use.

- Years of business operation.

The following table explains key determinants with all the categories assigned to every variable.

Table 3.5. Representation of Key Determinants

Description	
Explanatory Variables	
Age	○ 0: Under 20 ○ 1: 21-30 ○ 2: 31-40 ○ 4: 41-50 ○ 4: 51-60
Gender	○ 1: Male ○ 2: Female
Education level	○ 0: No formal education ○ 1: Primary education ○ 2: Secondary education ○ 3: Higher education
Year of Business	○ 1: Less than one year ○ 2: 1- 3 ○ 3: 4- 6 ○ 4: 7- 10 ○ 5: More than 10 years
Family Average income	○ 1: Less than 10000 ○ 2: 10.000- 20.000 ○ 3: 20001- 30.000 ○ 4: 30001- 40.000 ○ 5: More than 40.000
Using Microfinance time	○ 1: Less than 6 months ○ 2: 6 months – 1 year ○ 3: 1 year – 2 years ○ 4: 2 years – 3years ○ 5: More than 3 years
Loan Amount	○ 1: Less than $100 ○ 2: $100- $500 ○ 3; $500- $1000 ○ 4: $1000- $5000 ○ 5; More than 5000

3.7. Population and Sampling

The target population comprises small business owners in rural Afghanistan who have accessed microfinance services, and a total of 211 microfinance holder participated in this survey which ensures adequate representatıon across various regions, types of businesses, and levels of microfinance engagement.

3.8. Sampling Technique

The sampling will be random, stratified based on three criteria: geographic location (village, district, province), business type (e.g., retail, agriculture), and length of time using microfinance services. Data analysis will be performed using the statistical software STATA, and such methods allow for multiple regressıon, diagnostic testing, and descriptive analysis in this framework. This gives a systematic and accurate analysis of the impact that microfinance is having on average family income and on the sustainabilıty of businesses; the following research will utilize multiple regression analysis to ensure high-quality statistical testing that provides useful insights on how microfinance has contributed to the economic growth of rural Afghanistan.

3.9. Regression Model

In analytics, ordinary least squares is used in the testing of linear association for a single independent variable or multiple independent variables. Ordinary least squares provides a very accurate interpretation of the results in terms of probabilities and relative risk ratios.

For example, Akotey, Osei, and Gemegah (2011) employed the Ordinary Least Squares (OLS) regression model to study the relatıonship between microfinance accessibility and household ıncome and consumption in their paper titled "The impact of microfinance on household income and consumption ın Ghana". For instance, Basu and Srivastava (2005) applied the OLS regression model to measure the impacts of microfinance on rural disadvantaged households' income levels. This is because the dependent variable-the household income-is a continuous variable, and thus it was possible for the authors of this study to estimate the impact of microfinance access on

household income while controlling for other socio-economic variables. The findings showed that microfinance considerably enhanced households' income levels, underpinning the role of access to financial services in poverty alleviation. Based on the above discussion, I have focused on two dependent variables, each from the detailed perspective of its dynamics. I run five regressions on both dependent variables. First, the regression has been run for family average income with 211 sample size then the regression has been run for subgroups of strongly disagree, disagree, agree, and strongly agree. For business sustainability as well, the same method has been used. I will run eight regressions as a total.

- **Equations:**

The following equations were used to estimate the effects of independent variables on the dependent variable, average family income, and years of business operation.

$$\boldsymbol{Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + u}$$

$$\boldsymbol{Z = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + u}$$

Where:

- Y is the average monthly income
- Z is the years of business operations
- X_1 is the age of the respondent
- X_2 is the gender of the respondent
- X_3 is the education level of the respondent
- X_4 is the loan amount received form microfinance institution
- X_5 is the duration of microfinance loan
- β_1, β_2, β_3, $\beta 4$, $\beta 5$ = Coefficients of the independent variables
- u is an error term.

CHAPTER IV

FINDING AND DISCUSSION OF EMPIRICAL ANALYSIS

The study examined the impact of microfinance on two dependent variables, Business sustainability and average monthly income. Ordinary least square (OLS) has been used for the analysis, and together these surveys provide a holistic picture of how microfinance is improving both business sustainability and household income. The results point to promising possibilities for improving microfinance interventions.

Table 4.1 shows the effect of age, gender, educatıon level, duration of loan and loan amount on average monthly income.

Table 4.1. Average Monthly Income

Average Monthly Income			
Variables	**Coefficient**	**Std. Error**	**P value**
Age	.0054	.0711	0.940
Gender	-.0916	.1540	0.553
Education level	-.0309	.0689	0.654
Duration of MF services	.3271	.0603	0.000***
Loan amount	.2402	.0711	0.001***
Statistics			
Number of obs	211	R-squared	0.2730
F-value	15.40 (0.000)	Adj R-squared	0.255

Notes: Standard errors are robust for heteroscedasticity.

The regression analysis examines the effect of selected variables on average monthly income, focusing on how microfinance-related factors contribute to business sustainability.

It means that for every increase in loan value in assiciated, there is an accompanying increase in average montlhy income by 0.2402 unit, while controlling for other variables. Likewise, in support of its perspective, for every increase in years inassociated with microfinance service provision, there will be an increase in average montlhy income by 0.3271 unit due to utilization of these services for an additional year. It serves to provide substantial evidence on their meaningfulness and positivity.

On the other hand, demographic variables such as age, gender, and education level were not statistically significant. In summary, the regression results provide clear evidence that microfinance contributes positively to income and business sustainability, particularly when clients receive larger loans and remain involved with MFIs over time.

Table 4.2 shows the effect of independent variables average monthly income of those people who are strongly disagree that microfinance has affected.

Table 4.2. Average Monthly Income with Strongly Disagree

Average Monthly Income with Strongly Disagree			
Variables	**Coefficient**	**St. Error**	**P-value**
Age	.1715	.3843	0.659
Gender	.1715	1.219	0.443
Education level	-.0790	.5105	0.878
Duration of MF services	.2031	.1896	0.294
Loan amount	.2953	.2016	0.155
Statistics			
Number of obs	29	R-squared	0.1888
F-value	1.26 (0.3110)	Adj R-squared	0.0386

Notes: Standard errors are robust for heteroscedasticity.

In the subgroup of respondents who strongly disagreed with the positive effects of microfinance, none of the independent variables showed a statistically significant relationship with average monthly income. For instance, a one-unit increase in loan amount is associated with a 0.2953 unit increase in income, and an additional unit of

microfinance service duration corresponds to a 0.2031 unit increase in income. However, these coefficients are not statistically significant.

None of the predictors is statistically significant. While loan amount and time using microfinance services show slight positive associations with income, their effects are not strong enough to be statistically significant. At the same time, age, gender, and education level do not significantly influence income in this group. One possible reason could be that all respondents strongly disagreed with the effectiveness of microfinance, meaning that perhaps they had negative experiences, such as poor loan outcomes, inadequate support, or a mismatch between services and their business needs.

In general, though, for those whose lives are not improved by microfinance, income seems to be determined by deeper or more complex factors than those captured here, and by targeted research and program design accordingly.

Table 4.3 describes the perception of a group of people who disagree that microfinance has a positive effect on average monthly income.

Table 4.3. Average Income Level with Disagree

Average Income level with Disagree			
Variables	**Coefficient**	**St. Error**	**P-value**
Age	.0841	.3697	0.822
Gender	-.6418	1.163	0.585
Education level	.0746	.4775	0.877
Duration of MF services	.2100	.1886	0.275
Loan amount	.2736	.1993	0.181
Statistics			
Number of obs	31	R-squared	0.1776
F-value	1,21 (0.3305)	Adj R-squared	0.0308

Notes: Standard errors are robust for heteroscedasticity.

This analysis looks at the perception of a group of respondents who disagreed with the effectiveness of microfinance. From the regression analysis, it can be deduced that none of the independent variables significantly influenced average monthly income.

Individually, none of the variables shows statistically significant impacts, though the loan amount and time using microfinance services have positive coefficients. These results suggest that, for clients who are dissatisfied with microfinance, income is likely to be determined by other unobserved factors, such as business type, market conditions, or access to financial guidance, which are not captured in the model.

In sum, none of the discussed traditional demographic or financial variables determine income disparity within this group, and microfinance institutions need to develop more individualized and supportive approaches to serving an increasingly diverse clientele with numerous challenges and expectations.

Table 4.4 examines the impact of microfinance on the perception of those people who agree that microfinance helps them to strengthen their average monthly income.

Table 4.4. Average Income with Agree

Average Income with Agree			
Variables	**Coefficient**	**St. Error**	**P-value**
Age	-.0722	.1410	0.610
Gender	-.1602	.4411	0.717
Education level	.0041	.1570	0.979
Duration of MF services	.2649	.1097	0.018*
Loan amount	.2133	.1119	0.060*
Statistics			
Number of obs	79	R-squared	0.1789
F-value	3.40 (0.0079)	Adj R-squared	0.1263

Notes: Standard errors are robust for heteroscedasticity.

This analysis investigates the influence of demographic factors and microfinance-related factors on average monthly income among 79 respondents who accepted the effectiveness of microfinance services.

Notably, the variable time of using microfinance services has a statistically significant and positive effect on income (coefficient = 0.265, p = 0.018), indicating that longer participation in microfinance programs is associated with higher average monthly income. This supports the view of these respondents—that microfinance positively contributes to income generation. The *loan amount* variable also has a positive coefficient (0.213) is significant at 6% (p = 0.060), suggesting that larger loans may contribute to income growth, although the relationship is not as strong. In contrast, demographic factors such as *age*, *gender*, and *education level* show no statistically significant impact on income, indicating that income gains among this group are more closely tied to microfinance engagement than to personal characteristics.

In all, the results are in line with the perceptions of this group: longer and larger exposure to microfinance services tends to increase income. Such findings therefore stress the need for continued access to financial resources and support for clients who perceive the microfinance as being conducive to the economic well-being of these people.

Table 4.5 describes the perception of those people who strongly agree that microfinance has affected their average family income positively.

Table 4.5. Average Family Income with Strongly Agree

Average Family Income with Strongly Agree			
Variables	**Coefficient**	**St. Error**	**P-value**
Age	-.1460	.1897	0.445
Gender	-.0912	.5011	0.856
Education level	.0876	.2133	0.683
Duration of MF services	.2991	.1288	0.024*
Loan amount	.1692	.1277	0.190

Table 4.5. (cont.)

Statistics			
Number of obs	61	R-squared	0.1713
F-value	2.40 (0.0481)	Adj R-squared	0.0998

Notes: Standard errors are robust for heteroscedasticity.

The analysis assesses the relationship between demographic and microfinance-related factors and average monthly income among 61 respondents who agree that microfinance services are effective.

Of these variables, microfinance usage duration is significant (coefficient = 0.299, p = 0.024), which, based on the positive relationship that longer participation in microfinance services involves higher average monthly income, supports the belief of the respondents that continued engagement in microfinance services brings financial improvement, the variable of loan amount also gives a positive impact, though not statistically significant, coefficient = 0.169, p = 0.190, indicating a probable but not conclusive nexus between loan size and income growth. While, the demographic variables like age, sex, and educational background are insignificant, indicating that the improvements in income are likely to be driven more by the exposure to microfinance services rather than by individual background characteristics.

In conclusion, the results confirm the impression of these respondents. Sustained participation in the microfinance programs is an important factor in increasing income levels. This highlights the value of long-term relationships with clients and ongoing support from microfinance institutions to facilitate financial well-being.

Table 4.6 shows how the independent variables has affected years of business operation. In this part regressıon has been conducted years of business operation used as a dependent variable followed by they analysis of subgroup of strongly disagree, disagree, strongly agree and agree seperately.

Table 4.6. Years of Business Operation

Years of Business Operation			
Variables	**Coefficient**	**St. Error**	**P-value**
Age	.3059	.0725	0.000***
Gender	.3132	.1569	0.047**
Education level	-.0442	.0703	0.530
Duration of MF services	.3023	.0615	0.000***
Loan amount	.0646	.0724	0.373
Statistics			
Number of obs	211	R-squared	0.2786
F-value	15.84 (0.0000)	Adj R-squared	0.2610

Notes: Standard errors are robust for heteroscedasticity.

This analysis investigates how microfinance-related and demographic variables influence the number of years a business has been operating, a key measure of business sustainability.

When considering microfinance, the most important and statistically significant variable is the duration (in months) in microfinance programs. Duration of microfinance services plays an important role, where each additional month is associated with a 0.3023-year increase in business operation. This indicates a strong, positive association between the continued engagement in microfinance and business survival that reinforces the idea that microfinance fosters long-term entrepreneurship.

Interestingly, loan amount does not show a significant relationship with years of business operation (coefficient = 0.0647, p = 0.373). This suggests that while larger loans may help increase income in the short term (as seen in the previous model), they do not necessarily contribute to how long a business survives. Longevity appears to be influenced more by continuous support and engagement than by the loan size alone.

The variable age has a significant positive effect (coefficient = 0.306, p = 0.000), meaning older entrepreneurs are more likely to run businesses that have been operating longer. Similarly, gender is significant (coefficient = 0.313, p = 0.047), suggesting that

males, has longer-running businesses on average. However, education level remains statistically insignificant (coefficient = -0.044, p = 0.530), indicating that formal education is not a major factor in business longevity within this context.

Table 4.7 explains the perception of people who strongly disagree with the effectiveness of microfinance on business sustainability.

Table 4.7. Years of Business Operation with Strongly Disagree

Years of Business Operation with Strongly Disagree			
Variables	**Coefficient**	**Std. Error**	**P value**
Age	.9159	.2402	0.001**
Gender	-.9274	.7621	0.234
Education level	.3112	.3191	0.338
Duration of MF services	.2897	.1185	0.021*
Loan amount	-.0081	.1260	0.949
Statistics			
Number of obs	29	R-squared	0.4839
F-value	5.06 (0.0021)	Adj R-squared	0.3884

Notes: Standard errors are robust for heteroscedasticity.

The OLS regression result for the log of years of business operation, conditional on strong disagreement, is useful in explaining the determinants of sustainability. Controlling for other factors, a one-year increase in the age of a business owner is associated with an increase in 0.9159 years in business operation, and it is statistically significant at the 1% level. Gender has a negative coefficient (–0.9274); this implies that changing one's gender associates with a decrease of 0.9274 years in business operation, though not statistically significant. One-unit increase in the duration of microfinance services is associated with an increase in 0.2897 years in business operation and is statistically significant at the 5% significance level. Therefore, even within the strongly disagreeing group, older age and longer use of microfinance services significantly contributed to operating a business for more extended periods. However, other variables, such as gender, educational attainment, and loan amount,

are not statistically significant. This is where the loan amount, in particular, had a negligible and statistically insignificant effect (β = -0.008, p = 0.949), indicating that a larger amount of credit does not lead to longer survival of the business. These findings denote that even within the strongly disagreeing group, experience, both personal and financial, does help in the continuity of the business.

Table 4.8. assesses the perception of those respondents who disagreed that microfinance has an impact on the sustainability of their business.

Table 4.8. Years of Business Operation with Disagree

Years of Business Operation with Disagree			
Variables	**Coefficient**	**Std. Error**	**P value**
Age	.7943	.2434	0.003**
Gender	-.5006	.7658	0.519
Education level	.5250	.3144	0.106
Duration of MF services	.2992	.1242	0.023*
Loan amount	-.0381	.1312	0.773
Statistics			
Number of obs	31	R-squared	0.4429
F-value	4.45 (0.0041)	Adj R-squared	0.3434

Notes: Standard errors are robust for heteroscedasticity.

This OLS regression model investigates the factors influencing business sustainability—measured through years of business operation—specifically among the 31 respondents who disagreed with the survey statement.

The other variables in the equation have statistically significant and positive signs, the coefficient of age is 0.794, that of duration of using microfinance services having a coefficient of 0.299, and education level with a coefficient of 0.525. These indicate that the older the entrepreneur and the longer their relationship with This means that for microfinance institutions, the more their businesses will be sustained through time even for those who voiced disagreement. Experience and

access to finances in the long run are very crucial to business continuity notwithstanding general dissatisfaction or skepticism.

Conversely, variables such as gender, with a coefficient of -0.501, and loan amount, with a coefficient of -0.038, are not statistically significant, possibly meaning that those factors are not strongly determining business sustainability in this particular group, notably, education presents a positive effect, which may indicate the potential significance in larger or different samples. Overall, the findings pointedly reinforce the critical role of age and microfinance service duration in sustaining businesses, even among respondents.

Table 4.9 explains the perception of people who agree that microfinance helped them to sustain their business for a long time.

Table 4.9. Years of Business Operation with Agree

Years of Business Operation with Agree			
Variables	**Coefficient**	**Std. Error**	**P value**
Age	.3766	.1324	0.006**
Gender	.6467	.4143	0.123
Education level	-.1789	.1475	0.229
Duration of MF services	.3193	.1030	0.003**
Loan amount	-.1358	.1051	0.200
Statistics			
Number of obs	79	R-squared	0.2726
F-value	5.85 (0.0001)	Adj R-squared	0.2260

Notes: Standard errors are robust for heteroscedasticity.

This regression analysis is based on information provided by 79 respondents who have utilized microfinance services, aim of the analysis was to explore which factors influence the number of years a person has been operating their small business.

Of the variables in the model, age and time using microfinance services are significant, the coefficient for age is 0.38, which means that for every year of increase in age, the number of years the person operates his or her business increases by approximately 0.38 years. This would tend to support the view that older respondents have more years of experience running their businesses. Similarly, in this model, the time using microfinance services is positively related to business duration: for each extra year using microfinance, there is a corresponding increase in business operation of 0.32 years, and this stresses an important role that sustained access to microfinance plays in helping businesses survive and grow.

As a contrast, the variables of gender, education level, and loan amount are not statistically significant in business duration, while gender shows a positive coefficient, its p-value of 0.123 suggests that the relationship isn't strong enough to be considered significant. Education level and loan amount similarly have relatively small effects that prove not to be significant, implying their inability to strongly influence the length of time one operates their business.

The results indicate that the older the age and the longer the time of using microfinance service, the longer the business has been sustained. These findings point to the positive influence of microfinance services on the sustainability of businesses.

Table 4.10 explains the perception of those people who are strongly agree with the microfinance positive effect.

Table 4.10. Years of Business Operation with Strongly Agree

Years of Business Operation with Strongly Agree			
Variables	**Coefficient**	**Std. Error**	**P value**
Age	.5721	.1647	0.001**
Gender	.5088	.4351	0.247
Education level	-.0058	.1852	0.975
Duration of MF services	.3708	.1119	0.002**

Table 4.10. (cont.)

Loan amount	-.1427	.1109	0.203
Statitics			
Number of obs	61	R-squared	0.3575
F-value	6.45 (0.0001)	Adj R-squared	0.3021

Notes: Standard errors are robust for heteroscedasticity.

This regression analysis was conducted using data from 61 respondents who strongly agree and have utilized microfinance services, and the objective of the analysis was to explore which factors influence the number of years a person has been running their small business.

The most important variables among them include the age and the duration of microfinance use. The coefficient for age is 0.572, showing that with each additional year of age, a respondent is likely to operate their business for about 0.57 extra years, and this suggests that with increased age comes more experience and longer-running businesses, for example the longer a respondent has been using microfinance services, the better prepared they are to keep their business functional. The coefficient for duration was 0.371, which means for every extra year the microfinance services were used, there was a rise in business operation by 0.37 years, and this result underscores the importance of continued access to microfinance if small businesses are to stand the test of time.

On the other hand, gender, education level, and loan amount do not present statistically significant effects, and the coefficient for gender is positive, at 0.51, but with a p-value of 0.247, the relationship is not strong enough to determine that gender has a meaningful impact on business duration. Education level presents a very small negative coefficient, -0.006, while loan amount also shows a negative effect, but small in magnitude, -0.14; neither of these results is statistically significant, however, since the p-values are 0.975 and 0.203, respectively. These findings suggest that gender, education, and loan amount are not important factors affecting how long a small business remains operational within this group of respondents.

In short, the analysis indicates that with rising age, business sustainability prolongs, and the findings highlight the positive effect of microfinance services in regard to the sustainability of small businesses, whereas the impact of other factors such as gender, education, and loan size is minimal.

CHAPTER V

CONCLUSIONS

This study evaluated how microfinance affected small company owners' performance in rural Afghanistan, investigating how financial services accessibility affected household economic well-being, average family income and business performance, as there are four categories for the dependent variables, ordinary least square (OLS) has been employed for analysis. The estimation has been done in two steps. Firstly, regression has been run for average monthly income followed by strongly disagree, disagree, agree and strongly agree. And the same sequence has been followed for business sustainability as well.

OLS model is used for estimating the linear relationships between variables and it is capable to provide unbiased and efficient estimates under standard assumptions, and this research aims to determine whether access to microfinance services has a significant impact on improving household income levels and enhancing the sustainability of small businesses, and the broader goals of the research are to generate empirical evidence on the effectiveness of microfinance, identify the key factors influencing its success, and provide policy recommendations to strengthen microfinance programs in support of low-income families and small enterprises. The results demonstrate that in rural Afghanistan, microfinance plays a major role in business sustainability and profitability. The results indicate that loan amount and duration of loan were highly significant variables. As the loan amount and period increase it has higher impact on business sustainability and household income. And entrepreneurs can reduce financial stress, improve management, and take advantage of business growth by combining small loans, and these efforts result in measurable increases in household resilience and company profits. Furthermore, it has been discovered that women's involvement in microfinance programs promotes gender equity by enabling them to work as entrepreneurs and contribute to household income.

The finding indicates that microfinance has a significant positive effect on both average family income and business sustainability of small businesses. The results show that access to microloan contribute to business growth improved income level long term viability of small businesses. Respondent who utilized microfinance services generally reported better financial outcome and business stability.

In particular, the study indicated that businesses that received customized financial services and training increased their revenue and prospered in adverse economic circumstances. Farmers working in agriculture, the backbone of Afghanistan's rural economy, benefited from microfinance through increased productivity and seasonal stability of income. Overall, results illustrate that microfinance could help grow local economies through job creation and local economic growth. The study also identified a number of challenges.

Based on the finding of this research several recommendations can be made to enhance the effectiveness of microfinance programs. Increasing the amount of financial support would enable entrepreneur to make more substantial investment in their businesses. Furthermore, providing continuous advisory support regular follow ups can help them overcome financial challenges and maintain long term financial success.

Moreover, the study was conducted within a limited geographical area and due to the relatively small sample size it may restrict the generalizability of the results to other regions, despite this limitation this study will open window for other future studies such as the role of non-financial services like training and mentoring in boosting business sustainability. Furthermore, a comparative of MFI such as NGOs, corporative and commercial MFIs.

In conclusion, the potential of microfinance for improving entrepreneur success and reducing poverty in rural Afghanistan exists. By addressing the challenges this study identified and building on them, policymakers and practitioners may realize the potential of microfinance to empower small businesses, enhance economic resilience, and facilitate sustainable growth in Afghanistan’s fragile economy.

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APPENDICES

APPENDIX A

Questionnaire

Aslamualiakum Dear Participant,

Thank you for taking the time to participate in this survey. This questionnaire is part of a research study titled "Assessing the Role of Microfinance in Enhancing Entrepreneurial Outcomes Among Small Business Owners in Rural Areas in Afghanistan." Your insights and experiences are crucial in understanding how microfinance can impact small businesses in rural communities.

Please answer the following questions honestly and to the best of your ability. Your responses will be kept confidential and used only for research purposes.

Thank you for your valuable contribution!

Questionnaire on Assessing the Role of Microfinance in Enhancing Entrepreneurial Outcomes Among Small Business Owners in Rural Areas in Afghanistan

Section 1: Personal Information

Please provide the following demographic data and business characteristics.

1. **Age:**
    - ☐ Under 20
    - ☐ 21-30
    - ☐ 31-40
    - ☐ 41-50
    - ☐ 51-60
    - ☐ Above 60

2. **Gender:**
    - ☐ Male
    - ☐ Female
    - ☐ Other

3. **Education Level:**
    - ☐ No formal education
    - ☐ Primary education
    - ☐ Secondary education
    - ☐ Higher education (e.g., diploma, degree)

4. **Type of Business:**
    - ☐ Retail
    - ☐ Agriculture
    - ☐ Services
    - ☐ Manufacturing
    - ☐ Other (please specify): _____

5. **Years of Business Operation:**
    - ☐ Less than 1 year
    - ☐ 1-3 years
    - ☐ 4-6 years
    - ☐ 7-10 years
    - ☐ More than 10 years

6. **Geographic Location:**
    - Village: _____

- District: _____
- Province: _____

7. **Access to Microfinance Services:**
   - **Loan Amount Received: _____**
   - **Type of Financial Services Accessed:**
     - ☐ Loan
     - ☐ Savings
     - ☐ Insurance
     - ☐ Other (please specify): _____

Section 2: Multiple-Choice Questions

Please answer the following questions regarding your experiences with microfinance and its effects on your business performance.

1. **How long have you been using microfinance services?**
   - ☐ Less than 6 months
   - ☐ 6 months to 1 year
   - ☐ 1-2 years
   - ☐ 2-3 years
   - ☐ More than 3 years

2. **What type of microfinance products have you accessed?**
   - ☐ Loan
   - ☐ Savings
   - ☐ Insurance
   - ☐ Other (please specify): _____

3. **What was the size of the loan you received?**
    - ☐ Less than $100
    - ☐ $100 - $500
    - ☐ $500 - $1,000
    - ☐ $1,000 - $5,000
    - ☐ More than $5,000

4. **What was the primary purpose of the loan?**
    - ☐ Business expansion
    - ☐ Equipment purchase
    - ☐ Working capital
    - ☐ Other (please specify): _____

5. **Did you receive any business training or financial education along with the microfinance services?**
    - ☐ Yes
    - ☐ No

Section 3: Agree-Rate Questions (Likert Scale)
Please indicate your level of agreement with the following statements regarding the impact of microfinance on your business outcomes. Use the following scale:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

1. **Microfinance services have helped me increase my business revenue.**
    - ☐ 1
    - ☐ 2

- ☐ 3
- ☐ 4
- ☐ 5

2. **Access to microfinance has improved my business management skills.**
   - ☐ 1
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5

3. **Microfinance has enabled me to hire more employees.**
   - ☐ 1
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5

4. **Microfinance has allowed me to invest in new business opportunities.**
   - ☐ 1
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5

5. **Repaying the microfinance loan has been manageable for my business.**
   - ☐ 1

- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

6. **Microfinance has improved my family's economic situation.**
   - ☐ 1
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5

7. **Microfinance has contributed to the overall economic development of my community.**
   - ☐ 1
   - ☐ 2
   - ☐ 3
   - ☐ 4
   - ☐ 5

8. **Average family income**
   - Less than $100
   - $100 - $200
   - $200 - $300
   - Above $300

Thank you for participating in this questionnaire! Your responses are valuable in understanding the impact of microfinance on small business owners in rural Afghanistan

APPENDIX B

Ethics Committee Decision

Evrak Tarih ve Sayısı: 25.12.2025-67226

İBN HALDUN ÜNİVERSİTESİ

T.C.
İBN HALDUN ÜNİVERSİTESİ
Sosyal ve Beşeri Bilimler Bilimsel Araştırma ve Yayın Etiği
Kurulu Başkanlığı

2025 AİLE YILI

Sayı : E-71395021-050.04-67226 25.12.2025
Konu : Etik Kurul Kararı - Shabir Ahmad SALIH

İLGİLİ MAKAMA

Kurulumuza başvuran Shabir Ahmad SALIH'in, "Evaluating The Impact Of Microfinance On Household Income And Business Sustainability: Evidence From Afghanistan" isimli çalışması; amaç, araştırma türü, veri toplama araçları, süreç ve işlemler, veri analizleri dikkate alınmak suretiyle 19.12.2025 tarihinde incelenmiş ve 2025/12-25 karar numarası ile etik açıdan uygun bulunmuştur.

Bilgilerini ve gereğini arz/rica ederim.

Prof. Dr. Ali YEŞİLIRMAK
Başkan

Bu belge, güvenli elektronik imza ile imzalanmıştır.

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CURRICULUM VITAE

Full Name: Shabir Ahmad Salih

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2016 – 2020	BA in Business administration, Alfalah university, Afghanistan
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Work Experience:

2021 – 2022	Worked as finance officer with AABRAR
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