

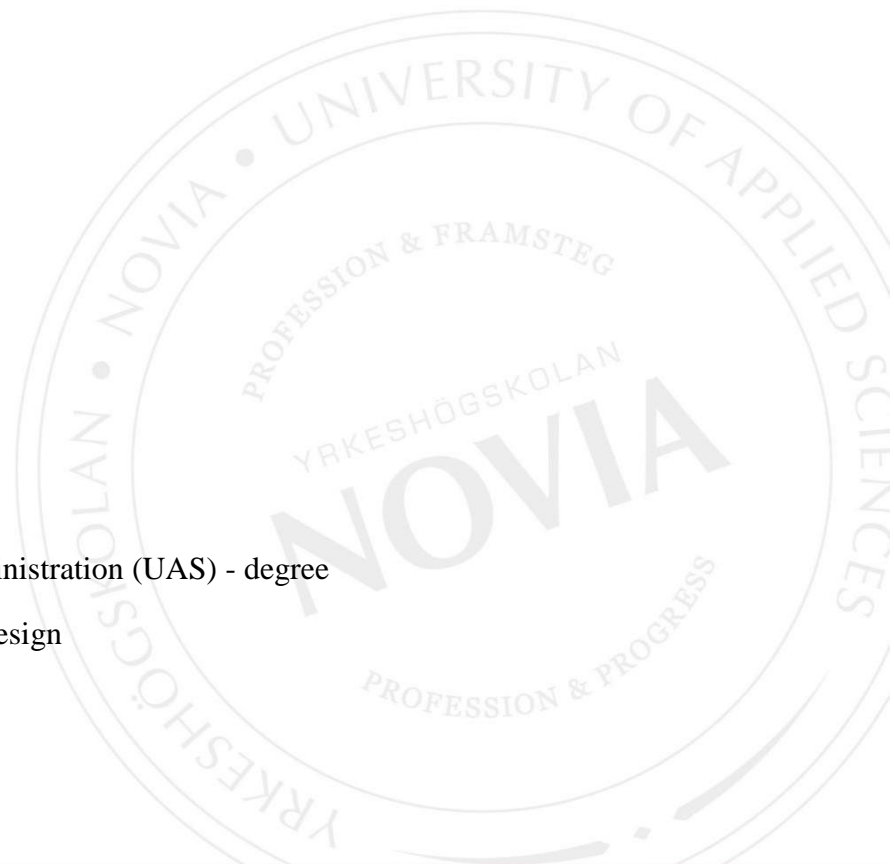
Microfinance and Rural Development

A Service Design Plan for Microfinance and Women's Outward Mobility in Rural Households in the Context of Bangladesh

Md. Rahan Alam

Thesis for a Master of Business Administration (UAS) - degree

The Degree Programme of Service Design



DEGREE THESIS

Author: Md. Rahan Alam

Degree Programme: Master of Business Administration

Specialization: Service Design

Supervisor(s): Dr Reija Anckar

Title: Microfinance and Rural Development

Date: 21-11-2023 Number of pages: 51 Appendices

Abstract

This study addressed the role of microfinance in the empowerment of rural women. The study used qualitative methods such as in-depth interviews and group discussions to highlight microfinance's multifaceted impact on women's economic, social, psychological, and political empowerment. Microfinance promotes women-led entrepreneurship, but traditional norms and patriarchal structures remain. Service design can improve microfinance by integrating financial education, business mentorship, and market access. The study further emphasized microfinance's social impact, particularly on women's mobility and gender roles. The outcomes call for an in-depth and team-based method to make the most of microfinance's ability to change circumstances in rural Bangladesh's complicated social and cultural context.

This study addressed the pain points of rural women in Bangladesh who receive or seek for microfinance to improve their economic condition. Based on the pain points and customer journey mapping, a mobile application was eventually suggested as the service developed for catering the key stakeholders.

Language: English. Key words: Microfinance, pain points, women empowerment, history, rural development

Table of Contents

1. Introduction.....	1
1.1 The history of microfinance.....	1
1.2 Problem Area / Aim: Who, how, and what.....	1
1.3 Rural Development.....	3
1.4 Decision-making power within the household.....	3
1.5 Purpose of the Thesis.....	3
1.6 Research Questions.....	4
2. Theoretical Background.....	4
2.1 Frame of Reference.....	5
2.2 Historical Evolution of Microfinance.....	8
2.3 Microfinance and Rural Development.....	9
2.4 Women’s Empowerment through Microfinance.....	10
2.5 Conceptual Framework and Service Design Process Chart.....	11
2.6 Financial Inclusion.....	14
2.7 Marginal Consumer Groups.....	15
3. Literature Review.....	15
3.1 Challenges and Limitations of Microfinance.....	15
3.2 Service Design for Comprehensive Impact.....	16
3.3 Women’s Outward Mobility and Microfinance.....	17
3.4 Empowering Women through Enhanced Confidence: The Role of Microfinance.....	18
3.5 Navigating Challenges and Embracing Opportunities.....	18
3.6 A Path Forward: Empowering Women through Microfinance.....	19
4. Optimal Microfinance Service Design Empirical Part.....	20
4.1 Research Approach.....	20
4.2 Data Collection.....	21
4.3 Data Analysis.....	23
4.4 Stakeholder Analysis Interviews.....	23
4.5 Rural Women Clients Interview Summary.....	24
4.5.1 MFI Officer Interview Summary.....	26
4.5.2 Government Officer Interview Summary.....	27
4.5.3 Small Business Owner Interview Summary.....	28
4.6 Stakeholder Characteristics and Pain Points.....	29
4.6.1 Rural Women Clients.....	29
4.6.1.1 Characteristics.....	29
4.6.1.2 Pain Points.....	30
4.6.2 Microfinance Institutions (MFIs).....	30
4.6.2.1 Characteristics.....	30
4.6.2.2 Pain Points.....	31

- 4.6.3 Government Authorities..... 33
 - 4.6.3.1 Characteristics..... 33
 - 4.6.3.2 Pain Points 34
- 4.6.4 Local Businesses and Suppliers 35
 - 4.6.4.1 Characteristics..... 35
 - 4.6.4.2 Pain Points 35
- 5. Optimal Microfinance Service Design Results and Discussion..... 36**
 - 5.1 Define..... 36
 - 5.2 Develop..... 40
 - 5.3 Deliver 42
- 6. Conclusion 43**
- 7. Reference 48**

1. Introduction

1.1 The history of microfinance

The history of microfinance can be tracked back to 1846, when the theorist Lysander Spooner, an activist and entrepreneur, pointed out the benefits that farmers could get through small loans to overcome poverty in rural America. However, the modern concept of microfinance was started by Dr. Muhammad Yunus from Bangladesh in the 1970s, who loaned \$27 from his own pocket to 42 people in Jobra, a tiny village in Bangladesh, in 1976 for zero interest (Microcredit, 2016).

The idea was to prevent the poor from going through the traditional way of banking, based on collateral deposits (Hossain & Rahman, 2001). Basically, low-income people were always neglected by commercial banks because they thought the poor had no money for a mortgage and lacked skills and education, so they were less capable of paying back the loan on time. But in Bangladesh, Grameen Bank, which means "Village Bank," takes the bank to the people looking for financial assistance. It provided loans without collateral deposits, and with the blessing of this financial support, many women are now self-reliant.

1.2 Problem Area / Aim: Who, how, and what

Traditional banking is based on giving loans and other financial services to people who can show they can handle and pay back the loans by putting up some kind of financial collateral. This is where microfinance comes in. Their main argument is that such forms of banking fail to meet the needs and demands of society's poorer echelons—those who work not only in developing but also in developed countries, often in the informal market (Mayoux, 2002).

However, even though a significant portion of women receive microcredit loans from institutions like the Grameen Bank, it cannot be said for certain that the microfinance model by itself drives women's empowerment. There are many other factors that determine the outcome of women's empowerment through microfinance. These factors include education, training, group discussions, and brainstorming.

Therefore, organizations that only provide financial help through microcredits could make a big difference in empowering women in Bangladesh by making their microfinance services better designed. If banks and NGOs place greater emphasis on supporting factors such as training, education, and brainstorming sessions, they can substantially increase the effectiveness of the microfinance model.

Microcredit empowers women, granting them more power and freedom within their families and the larger community, as demonstrated by the research conducted for this thesis. Muhammad Yunus defines microcredit specifically as Grameen credit with features such as credit for the purpose of poverty alleviation, no-collateral-backed loans, the formation of peer groups as a requirement for loans, obligatory savings programmes, and weekly re-payment (Yunus, 2009).

The goal of the workshops was to find ways to fix problems that users were having and to figure out how well microfinance institutions and cooperatives in Bangladesh were doing at helping the poor get out of poverty and improving their economic situation. One of the goals of this thesis was to find problem areas and build long-term solutions for women and rural communities.

1.3 Rural Development

Our aim to make changes that will improve the economic and social lives of rural poor people through more production, fair distribution, and giving them more power. A Major focus will be on agricultural development because rural development is a much broader process that aims at the development of the rural economy.

For rural development in Bangladesh, the first element is poverty mitigation and the improvement of living standards of the rural population. This can be achieved by introducing a wide range of employment opportunities in the rural setup. Various rural development programs have been organized to reach this goal. For the most effective approach, it is important to involve the rural people in planning, decision-making, implementation, and evaluation of the programs. This should also be inclusionary, which means, rural women must be given priority.

1.4 Decision-making power within the household

Household decision-making power is the subgroup that shows the amount of influence a woman has in household decisions. Decision making power is in turn divided into the following separate indicators: the ability to make small purchases as well as being involved in the decision to make large purchases, to make the decision to work away from home, and to be involved in buying and selling property.

1.5 Purpose of the Thesis

Based on my current knowledge of microfinance in Bangladesh, I have established/set the following research goals:

- ✓ to understand and create awareness among the rural community
- ✓ to identify how service design tools and concepts can help microfinance institutions contribute more effectively to women empowerment

- ✓ to identify the main motivating factors for involving microfinance institutions
- ✓ to identify the obstacles faced by rural women in obtaining investment through digital channels
- ✓ to develop an optimal microfinance model for the rural women in Bangladesh

1.6 Research Questions

The following are some of the research issues that will guide the investigation of microfinance and its effects on women living in rural areas of Bangladesh for the purpose of this thesis:

- ✓ What are the most effective ways of using service design tools to create financial services for microfinance?
- ✓ How can we promote more women's participation in microfinance programs?
- ✓ What are the pain points experienced by the users of microfinance services?

2. Theoretical Background

Service design is an approach that encompasses multiple disciplines and centers around the enhancement of the interaction between a service provider and its clients. The primary objective is to improve the overall quality of service delivery (Stickdorn & Schneider, 2011). The focal point of this strategy lies in the concerted integration of both concrete elements, such as physical infrastructure and technological resources, and abstract factors, such as the overall customer experience and the manner in which services are provided. The ultimate goal is to provide services centered around users' needs and preferences, while still being efficient and pertinent (Meroni & Sangiorgi, 2011).

In the context of microfinance services for rural Bangladeshi women, the development of a single digital platform with the goal of gathering all stakeholders together is the key proposal of the service design. This platform is set up to support the user journey of rural women, from signing

up for an account to getting training to eventually getting in touch with local companies. The platform is designed to offer educational alternatives and investment opportunities based on particular user profiles, delivering a personalized and effective experience.

2.1 Frame of Reference

As shown below in Figure 1, these criteria guide research and guarantee that financial services are user-centric and suit beneficiaries' demands. Mobile banking and application creation require an understanding of consumer preferences and needs.

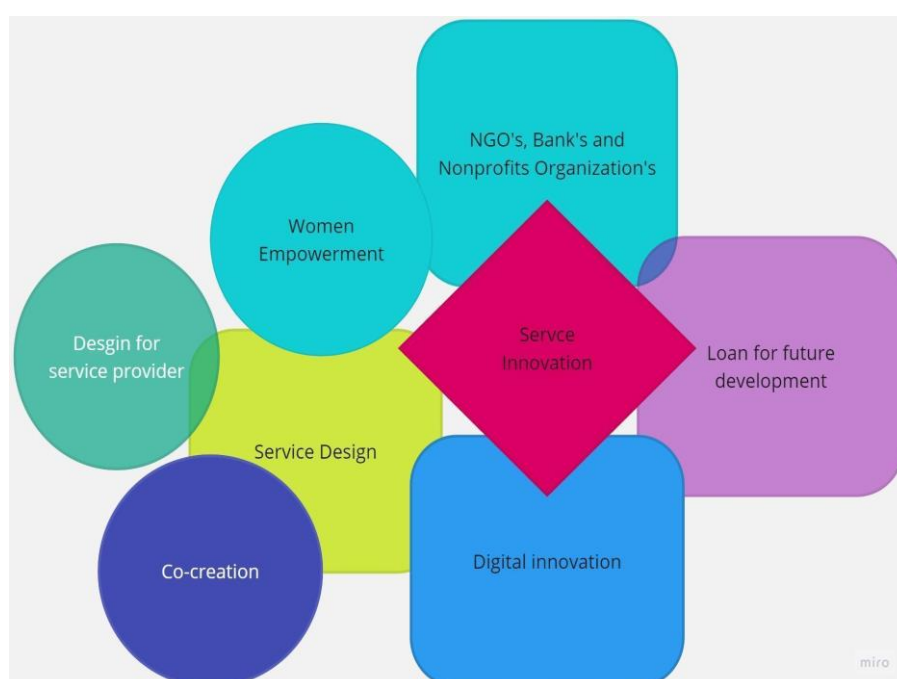


Figure 1. A frame of reference

The study explores a number of microfinance purposes, methods, and functions in Bangladesh's poverty reduction and economic growth using the theoretical framework of microfinance. These guidelines serve as a framework for research and guarantee that the design of financial services is user-centric and successful in meeting the needs of the beneficiaries, particularly in the context of mobile banking and app development.

The Global System for Mobile Communications Association predicts that the number of

smartphone users in Bangladesh will rise from 47% in 2022 to 63% in 2025 (Islam, 2022), hence one of our key objectives is to offer economic assistance through mobile banking. Our goal is to create digital interfaces that are designed with developing women entrepreneurs in mind, taking into account the increasing use of mobile devices.

To help guide future studies on microfinance and rural development in Bangladesh, this chapter will provide a theoretical framework. We will first define microfinance and discuss its many applications. Afterwards, we discussed the studies conducted on microfinance and rural household development through women's empowerment in Bangladesh, with an emphasis on the role microfinance plays in alleviating poverty and fostering economic expansion.

Microfinance refers to the lending of small amounts of money to enterprises and households with low incomes. The theory behind it is that expanding people's access to banking services will positively affect economic growth, social welfare, and poverty reduction (Armendariz & Morduch, 2005). Microfinance involves the provision of credit, savings, insurance, and other financial services to the poor, who are often shut out of the traditional banking system (Mitchell, 2012).

Several microfinance models have various goals and methods. Grameen Bank, Self-Help Groups, Credit Unions, and Savings-Led Models are the most prevalent types of microfinance institutions (Armendariz & Morduch, 2005). In the Grameen Bank's model, small loans are offered to groups of people rather than to individuals. As a core tenet of the self-help group paradigm, group members pool their money and then lend it to one another. Credit unions are a type of cooperative that offer members a range of financial services. Under the savings-led approach, members of the organization pool their resources to make loans to one another.

When the Grameen Bank was founded in the 1970s, microfinance was promoted in Bangladesh (Khandker and Samad, 2016). Since then, microfinance has grown in importance as a method of tackling poverty and fostering economic growth throughout the country (Khandker and Samand, 2016). Financial services are made available through microfinance in Bangladesh with the hope that low-income people will be able to improve their standard of living by accumulating assets and earning more money (Khandker and Samad, 2016). Small business loans, funding for the construction of low-income homes, and agricultural financing are all examples of how microfinance has been put to use.

This review is concerned with microfinance's role in empowering women and fostering rural entrepreneurial growth. I have traced its evolution, assessed impacts, explored limitations, and investigated service design's potential. This complex ecosystem involves various actors and factors that interact dynamically, revealing gaps and untapped opportunities.

The takeaway is clear: Microfinance alone is not enough. I need a holistic approach that blends interventions. The use of service design greatly enhances the effectiveness of microfinance, making it an essential factor. Integrating financial literacy, fostering mentorship, and accessing markets are vital components.

The implications are significant. Microfinance boosts rural development, extending services to the marginalized, and offering stability. Women's empowerment also benefits, by bridging gender gaps and expanding horizons.

Looking forward, empirical research is essential to measure impact rigorously, while innovative experiments must adapt to various contexts.

2.2 Historical Evolution of Microfinance

Microfinance's evolution is a narrative interwoven through time, rooted in age-old lending practices spanning cultures and eras. In the 1970s, a response to conventional banking's shortcomings ignited a modern movement, aimed at bridging financial gaps for the marginalized. Led by self-help, solidarity, and social justice ideals, innovators reshaped lending norms, enabling credit and savings access sans traditional collateral (Ledgerwood & Gibson, 2013).

A key figure, Dr. Muhammad Yunus, a Bangladeshi economist and visionary, shaped microfinance's trajectory. In 1976, he established the Grameen Bank, pioneering group lending where women supported each other's aspirations. The bank went beyond numbers, fostering community participation, education, and health enhancements. Its triumph empowered countless women, lifting them from poverty's grip and amplifying their influence (Yunus & Jolis, 2007).

Recognition culminated in the 2006 Nobel Peace Prize, thereby acknowledging Dr. Yunus and the Grameen Bank's contribution to economic and social progress (Nobel Prize Committee, 2006).

The microfinance model's achievement served as an encouragement for other Microfinance Institutions (MFIs) to follow in its footsteps and modify it, attracting a variety of stakeholders including investors and supporters. It was perceived as a potentially effective remedy for poverty, stimulating inclusiveness and equality while also posing a difficulty to establish banking practises (Morduch & Haley, 2002). Yet, discussions regarding the effectiveness, ethics, and consequences of microfinance continue to spread. In the midst of both acknowledge and doubt, the concept of microfinance serves as confirmation of innovative advancements and establishing journeys, influencing the

development of society (Bateman & Chang, 2012).

2.3 Microfinance and Rural Development

Rural Bangladesh houses about 65% of its population, which presents a complex tableau. We find high population densities, land constraints, agrarian reliance, limited income avenues, and vulnerability to environmental fluctuations. The grip of poverty is palpable, with 2016 statistics depicting 35% of rural residents below the national poverty line (World Bank, 2018b). Among these challenges, rural women encounter multifaceted obstacles across education, health, economic access, and decision-making.

In this context, microfinance emerges as a dynamic force where conventional banking structures fall short. It plays a role in nurturing rural economic growth by providing financial access to the marginalized. Microfinance facilitates credit infusion into productive channels like agriculture and small businesses. It also goes beyond mere finance, enabling prudent savings practices to weather income fluctuations. The impact reverberates widely, sparking employment opportunities, bolstering income streams, enhancing productivity, and invigorating local economies (Armendariz & Morduch, 2005).

Microfinance's significance extends further as an ally in the battle against rural poverty. It uplifts the economically disadvantaged, leading to improved income dynamics and prudent expenditures. The influence extends into the intangible spheres, fostering educational improvements, superior healthcare access, elevated nutritional outcomes, and better sanitation standards. Beyond monetary implications, microfinance empowers through entrepreneurial initiatives, fostering self-assurance, self-reliance, and social cohesion.

Microfinance has been shown to have sustained benefits over two decades in reducing poverty and increasing incomes in rural Bangladesh (Khandker et al., 2016). Microcredit accounted for a 10% reduction in rural poverty in Bangladesh over that time—meaning MFIs lifted some 2.5 million Bangladeshis from the ranks of the poor (Gustafson & Khandker, 2016). Microfinance also contributed to different livelihood and empowerment dimensions for both men and women (Mazumder, 2022). However, some studies have also raised questions about the efficacy, ethics, and impact of microfinance in Bangladesh (Bateman & Chang, 2012). Therefore, microfinance is not a panacea for rural poverty but a powerful tool that needs to be used with caution and care.

2.4 Women’s Empowerment through Microfinance

Women’s empowerment encompasses a range of dimensions, from decision-making capabilities to practical actions, shaping various aspects of their lives. It is a pivotal goal within sustainable development, contributing to diverse aims like poverty alleviation, healthcare enhancement, educational progress, and gender equity.

Numerous elements, including personal attributes, communal norms, institutional structures, and policy interventions, converge to shape women’s empowerment. Among these interventions, microfinance emerges as a potent tool in developing economies. By granting financial resources, income opportunities, and social networks, microfinance aims to bolster women’s material well-being and self-assurance (Kabeer, 2005).

The Grameen Bank model emerges as a notable exemplar, anchored in the belief that women are dependable, responsible, and resourceful in managing microcredit for productive ventures. This model strategically hones in on women, envisaging their empowerment across economic, social, psychological, and political strata. First of all, financial authority, asset ownership, and income generating are all included in economic

empowerment. Second, social empowerment includes things like challenging conventional gender norms, information accessibility, and public participation. Thirdly, improving aspirations, self-efficacy, and self-esteem are the main goals of psychological empowerment. Lastly, the ability to influence decisions about governance is referred to as political empowerment. Together, these elements add to a complete understanding of empowerment in a range of contexts.

2.5 Conceptual Framework and Service Design Process Chart

A conceptual framework is a visual tool that gives research shape and focus. It is used to assist researchers in understanding the connections between various concepts, variables, and ideas. A conceptual framework would provide a foundation for understanding how microfinance has impacted rural development in Bangladesh, which is the case in this study.

The above research method will be tied into a need statement (Definition of the problem), which will be given shape and information by a creative journey following the Double Diamond framework.

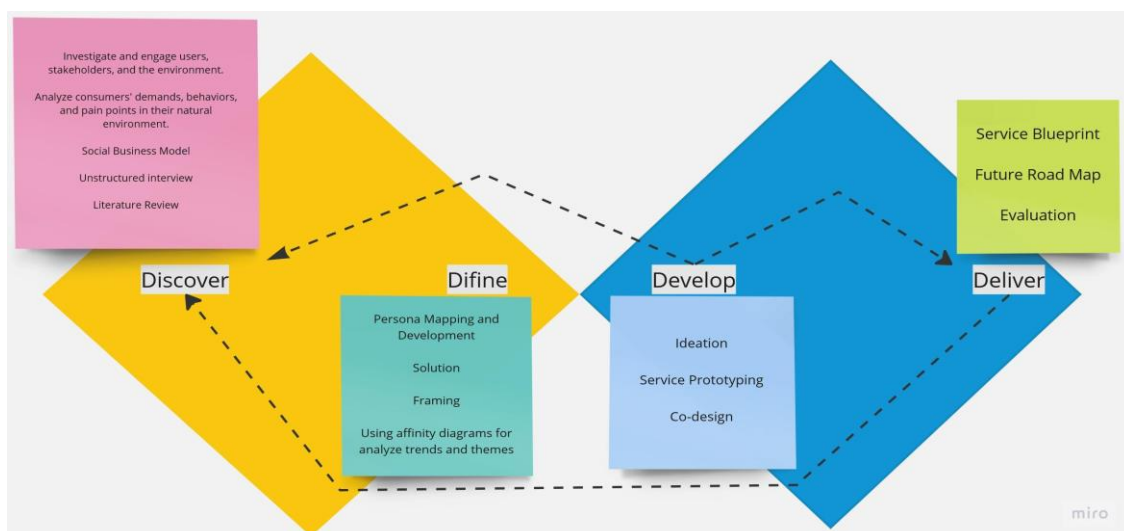


Figure 1. The Double Diamond Process and methods

This research is based on MFIs in Bangladesh. Here is why and how loans play an important role in the empowerment of women in Bangladeshi rural society. For an understanding of how rural residents fit into the digitization process, it is essential to identify the digital payment and loan servicing operations.

Furthermore, it is critical to investigate the ways in which microfinance institutions (MFIs) set up different training and assistance programmes to promote economic activity among rural communities. These initiatives will affect a nation's ability to sustain its economy in the long run. These unskilled rural women can greatly increase the GDP (gross domestic product) if given the opportunity to participate in the economy. After receiving assistance and training from microfinance institutions (MFIs), rural women apply their knowledge to the process of generating revenue. These women enhance their income through operations, which helps them pay for everyday expenses and raises their habitual depositing ratio. Their use of knowledge enhances their financial standing and adds to the stability of their economy as a whole.

The Double Diamond method commences with the first diamond, which involves divergent thinking. This approach seeks to identify opportunities and accumulate knowledge through various research methodologies. As the diamond narrows, convergent thinking comes into play, where the problem is articulated and decisions are made to advance the process (Stickdorn et al., 2018, pp. 85–89). The second diamond also employs both divergent and convergent thinking. In this stage, numerous ideas are generated and subsequently refined to determine the final deliverables (Stickdorn et al., 2018, pp. 85–89).

2.5.1 How does the Service Design Process Chart work?

Through its four primary stages—discovery, definition, development, and delivery—the service design process, which is based on the Double Diamond technique, aims to address the research questions.

2.5.1.1 Discover

During my investigation's discovery phase, I focused on obtaining data from consumers, stakeholders, and the larger context. This stage used multiple primary methods, including:

- According to Beyer and Holtzblatt (1998), contextual inquiry is studying customers in their natural environments in order to understand their wants, behaviours, and pain points. This approach makes it possible to understand the needs and issues that users really experience on a deeper level.
- Stakeholder interviews are important for gathering information and identifying potential for improvement (Stickdorn et al., 2018). Engage with important stakeholders such as MFI personnel, policymakers, and women taking part in microfinance programs.
- Review of the Literature (Hart, 1998): To comprehend the present level of knowledge and best practices, review the literature on microfinance, service design, and women's empowerment.

2.5.1.2 Define

In the define step, we combine the information from the discovery phase into a coherent and actionable problem statement. This phase's main techniques include:

- Organize and categorize findings using affinity diagramming (Scupin, 1997) to find trends and themes.
- Value Proposition Canvas Y. (2010) is used to refine and clarify the value proposition of the proposed microfinance service. It helps in crafting a clear and compelling value proposition that aligns with the identified user needs.

- Persona Development (Cooper, 1999): Develop fictitious yet exemplary user profiles to learn more about the wants and needs of the target audience.

2.5.1.3 Develop

I generate and prototype potential solutions to the problem during the development process. This phase's main techniques include:

- Ideation (Osborn, 1953): Come up with various suggestions for probable answers using strategies like brainstorming, brainwriting, or the Walt Disney Method.
- Co-design (Sanders & Stappers, 2008): Collaborate with users and stakeholders to develop solutions that address their needs and expectations.

2.5.1.4 Deliver

In the delivery phase, we make the solution more effective and put it into practice while preparing for ongoing improvement. In this phase, important techniques include:

- In order to facilitate implementation and pinpoint potential areas for development, the Service Blueprint (Bitner et al., 2008) maps out the service's elements, touch points, and interactions.
- Evaluation (Patton, 2011): Examine the effectiveness of the adopted solution using both qualitative techniques, such as user comments and sharing ideas on the effect on women's engagement in microfinance initiatives.

2.6 Financial Inclusion

Financial inclusion stands for having access to affordable and useful financial services and products. Starting from bank accounts to transactions, payments, credits, interests, investment schemes, and even insurance policies, financial inclusion covers it all. While the first step of financial inclusion is a transaction account which can store, send, and receive money, now the aspect of financial inclusion is far broad in the modern economy. For example, having a mobile

banking account and having access the means (internet for example) to use that account is a part of financial inclusion as well. Rural women in Bangladesh did have access to the means of financial inclusion for a long period of time, but recently the scenario has improved. From 2017 to 2021, digital transaction access for Bangladeshi women increased by 7% (Ali, 2021).

2.7 Marginal Consumer Groups

Marginal consumer groups are often referred to as the potential consumers who have interest in the product or service, but may not be able to avail the product or service right away due to obstacles like price, inaccessibility, etc.(Liu, 2011). While many NGOs and microfinance institutions have directly worked with rural women in Bangladesh, a large portion of this group can be considered as marginal consumers for obstacles like lack of economic opportunities, training, or business knowledge.

3. Literature Review

3.1 Challenges and Limitations of Microfinance

In the microfinance realm, a challenge looms in the form of limited financial know-how among rural women borrowers. Financial literacy, encompassing money management skills, and specific task proficiencies, collectively referred to as skills, are crucial yet lacking. This gap impacts program sustainability, women's empowerment, and well-being. It can lead to poor financial choices and hamper business growth (Khan et al., 2022).

Another hurdle emerges as rural women struggle with market access and infrastructure deficiencies. Market reach and infrastructural support significantly affect business profitability, empowerment, and well-being. A dearth in these can hinder market traction, escalate costs, and stifle productivity. Rural women often lack timely market

information, face challenges in negotiating prices with buyers and have difficulty physically accessing markets due to limited transport opportunities and restrictions on their mobility.

Additionally, a holistic approach beckons, fusing microfinance with other solutions to tackle multifaceted poverty and empowerment issues faced by rural women. This all-encompassing strategy marries financial services with non-financial aid, while also challenging societal norms and barriers. By addressing these shortcomings, holistic approaches promise to amplify microfinance's impact (Ribeiro et al., 2022).

3.2 Service Design for Comprehensive Impact

Service design, a user-centric approach, crafts meaningful and desirable services for both users and providers. This involves comprehending user and provider needs, shaping service processes and interactions, and evaluating outcomes (Stickdorn et al., 2020). In the context of microfinance, service design holds potential to heighten quality and effectiveness.

To magnify microfinance's impact, integrating financial literacy and training is pivotal. This enhances the financial acumen of rural women borrowers, encompassing budgeting, saving, investing, and risk management. It fosters informed decision-making, resilience against financial shocks, and planning for future aspirations.

Another avenue lies in nurturing business mentorship and growth. This equips women with business acumen, from market insights and plan development to maintaining quality standards and expanding clientele. This bolsters business performance and sustainability, driving innovation and competitiveness.

Furthermore, integrating access to markets and opportunities emerges as a transformative element. By fostering demand, supply, and diversifying income streams,

this step not only elevates financial standing but also ripples through families and communities (Stickdorn et al., 2020).

This trifecta of service design - financial literacy, business mentorship, and market access - creates a dynamic approach that wields microfinance as a force for empowerment and positive change.

3.3 Women's Outward Mobility and Microfinance

Women's mobility, a nuanced construct, extends beyond physical shifts, encompassing social, economic, cultural, and political realms. It reflects their participation and access across domains. Influences span personal traits, household dynamics, societal norms, and policy actions, fostering a complex interplay (Fernandez, 2009).

Microfinance emerges as a catalyst for augmenting women's mobility in rural Bangladesh. By supplying financial resources, income avenues, and social networks, it elevates their material well-being and self-assurance. This newfound mobility enables them to venture outside homes for diverse purposes, from attending meetings and transacting business to accessing information and engaging in community activities. Moreover, microfinance reshapes traditional boundaries, empowering women to explore non-farm activities, enter new sectors, and challenge gender norms (Nawaz, 2019).

This ripple effect extends into decision-making and socio-economic impact. Microfinance amplifies women's say over financial resources and networks, enhancing self-esteem and self-efficacy. As a consequence, they can exert more influence over household income, expenditure, and welfare. This empowerment radiates across families and communities, nurturing education, health, nutrition, and sanitation improvements (Islam et al., 2019).

3.4 Empowering Women through Enhanced Confidence: The Role of Microfinance

Microfinance isn't just about providing financial resources; it's a catalyst for change that extends far beyond monetary transactions. When microfinance programs are designed to incorporate training and capacity-building components, they become a powerful tool in fostering women's confidence and self-efficacy (Gustafson & Khandker, 2016). Through these initiatives, women acquire essential skills in financial management, entrepreneurship, and market navigation. These newfound abilities empower them to navigate the complexities of the external world and confidently engage with a diverse array of stakeholders (Nawaz, 2019).

The impact of this increased confidence reaches beyond the realm of economic activities. It spills over into other crucial spheres of life, enabling women to actively participate in community affairs, education, and healthcare decisions. No longer confined to the margins, these women emerge as influential actors in shaping the course of their own lives and the well-being of their families and communities (Khan et al., 2022).

3.5 Navigating Challenges and Embracing Opportunities

Yet, this journey toward enhanced women's empowerment through microfinance is not without its challenges. The deeply rooted cultural norms that have historically restricted women's mobility and autonomy cannot be dismantled overnight. To truly make a lasting impact, a comprehensive approach is essential. It involves weaving financial support together with educational initiatives that equip women with both practical skills and the knowledge to challenge societal norms. Awareness campaigns and strategic collaboration with local community leaders and influencers are instrumental in slowly reshaping perceptions and beliefs.

Moreover, as women gain more freedom to explore the wider world, concerns about their safety and security come to the forefront. While microfinance creates opportunities, it's imperative to ensure that women are shielded from potential risks. This calls for measures that extend beyond the realm of finance, including access to safe transportation and the creation of robust support systems that can effectively address any challenges that arise (Islam et al., 2019).

3.6 A Path Forward: Empowering Women through Microfinance

In the context of rural Bangladesh, microfinance is emerging as a potent vehicle for women's outward mobility—a means to dismantle the barriers that traditional gender norms and sociocultural restrictions have erected. Through the provision of financial resources, the imparting of skills, and the opening of doors to new opportunities, microfinance becomes a force of empowerment. Women who once lived within the constraints of societal boundaries are now breaking free, challenging norms, expanding their horizons, and making their mark in both the economic and social spheres (Nawaz, 2019).

As we look ahead, the potential of microfinance to catalyze women's empowerment is immense. However, it's a journey that demands ongoing commitment. By integrating financial inclusion with education, raising awareness, and ensuring safety, microfinance can usher in an era of greater equality and agency for women in rural Bangladesh. Through collaboration, innovation, and dedication, we can harness the full transformative power of microfinance and empower women to stride confidently into a brighter future (Bagazonzya, 2010).

4. Optimal Microfinance Service Design Empirical Part

In this part of the study, I will attempt to design an optimal microfinance service that caters to the pain points of the end consumers and is more likely to bring the desired outcome in terms of proper use of the loans received by the consumers. The core of designing the proposed microfinance service is going to be the double diamond method, which has separate phases: discover, define, develop, and deliver. At this stage of the study, it would not be possible to totally complete the ‘deliver’ phase, as this service concept has to be accepted by a local NGO or a bank to be able to provide it to the end consumer.

However, this study will develop the service blueprint, which can then be put into practice for evaluation should there be an opportunity to do so. For gathering the empirical data for each of these phases, methods like online unstructured interviews, netnography, and online surveys have been used. The empirical part of the thesis takes care of the ‘discover’ part of service design. In the results section, the rest three will be discussed based on the findings of the empirical part.

4.1 Research Approach

Choosing an appropriate research methodology is a pivotal component in the formulation of a thesis. This particular thesis undertakes an exploration of the obstacles associated with sustainability-focused innovation within the realm of the clothing industry, a domain that has received relatively limited attention in academic scholarship. Given the qualitative nature of this study, which prioritizes textual data over numerical data, we adopt a qualitative research approach, as described by Bell, Bryman, and Harley (2019), which involves refraining from the collection or generation of quantitative data. The absence of formulated hypotheses in this thesis aligns with our research questions, ensuring that our findings remain open-ended and unforeseen. The validity of our findings relies on the information collected from individuals

working within the Bangladeshi MFI industry, government officials, small business owners in remote areas, and most importantly, rural women; as we investigate the difficulties associated with the implementation of MFI models.

Qualitative research, as per Bell, Bryman, and Harley (2019), centers on verbal data collection and analysis, emphasizing the dynamism of social phenomena. Consequently, this research approach vividly captures the evolving nature of events and patterns over time, reflecting a sense of fluidity and transformation.

4.2 Data Collection

The focal point of this study revolves around the investigation of microfinance services and their efficacy in rural Bangladesh, specifically for rural women. Given the research's objective of yielding reliable outcomes, a reliance on primary sources is deemed indispensable. Consequently, interviews emerge as the sole viable avenue for the acquisition of primary data. Notably, interviews stand as one of the most extensively employed methods in qualitative research, as endorsed by experts in the field.

In the context of qualitative research, interviews are characteristically less structured when juxtaposed with their quantitative research counterparts. Qualitative research emphasizes a broader conceptual framework, encouraging a more open-ended exploration of research ideas and the perspectives of interviewees (Bryman & Bell, 2011).

Within the realm of qualitative research, two primary interview types prevail: unstructured interviews and semi-structured interviews. Unstructured interviews typically involve posing a single, overarching research question, permitting interviewees to respond freely. The interviewer retains the flexibility to pursue points of interest as they arise in the conversation. Conversely, semi-structured interviews entail a predetermined list of questions, organized around specific

topics to be addressed within the study. However, the sequence of questions may deviate from the predefined order (Bryman & Bell, 2011). In this research unstructured interviews were chosen as the method because a major portion of the the respondents were from rural areas of the country. Unstructured interviews was the best method to get their opinion on the research topic.

In order to improve the efficiency of data collection, the recording method plays a pivotal role. While audio or video recording is generally the preferred method for preserving primary data, there may be occasional disagreements between researchers and participants. In such cases, resorting to handwritten notes might be the only feasible option, even though it comes with the potential drawbacks of being less reliable and prone to missing crucial details (Jamshed, 2014). Consequently, the use of video or audio recording is considered the best approach for ensuring the accurate preservation of primary data.

Unstructured interviews were taken online from representatives of each of the stakeholder categories identified in the study. These categories are: rural women clients, microfinance institutions, government authorities, and local small businesses. 5 respondents from each category were chosen, and each of them was asked 5 questions.

The rural women clients chosen for the interviews were all receivers of microcredit, and they received the loans quite a while ago. They were chosen as they have hands-on experience with microcredit and its usage. They were picked from different locations. From MFIs, 5 officers were chosen from different institutes. Some of these institutes were NGOs, while the others were banks. 5 government officials associated with rural development and microfinance were interviewed, and they are posted in different locations of the country. Lastly, 5 small businessmen were chosen for the interview and each of them are from different locations. The interviews were conducted via Whatsapp and Facebook Messenger.

The information of the respondents can be found in Appendix 1.

4.3 Data Analysis

Following the execution of interviews, a meticulous transcription process was undertaken, ensuring the comprehensive documentation of every detail. Subsequently, interviewees were furnished with their respective transcripts, affording them the opportunity to review and amend their prior statements as needed. Upon receipt of the finalized transcripts, they were subjected to a synthesis and organization process to align with the research inquiries.

A comparative analysis was subsequently conducted, delving into the varied approaches and statements of different companies concerning the challenges they encountered while implementing sustainability-oriented innovation within their distinct organizational contexts. Particular attention was directed towards identifying recurrent themes and shared terminology employed by respondents, with the aim of elucidating discernible patterns within their narrative descriptions. To facilitate the analysis of the empirical data, harmonization with the established theoretical framework was imperative, guiding the consolidation of data within the findings chapter.

4.4 Stakeholder Analysis Interviews

The service design process for optimal microfinance starts with the stakeholder analysis. This is very crucial to the study, as different stages of the service design process are going to use the information retrieved from the stakeholder analysis. In this section, I would like to identify the key stakeholders, their impact in developing the service, and their traits and pain points in the context of rural Bangladesh.

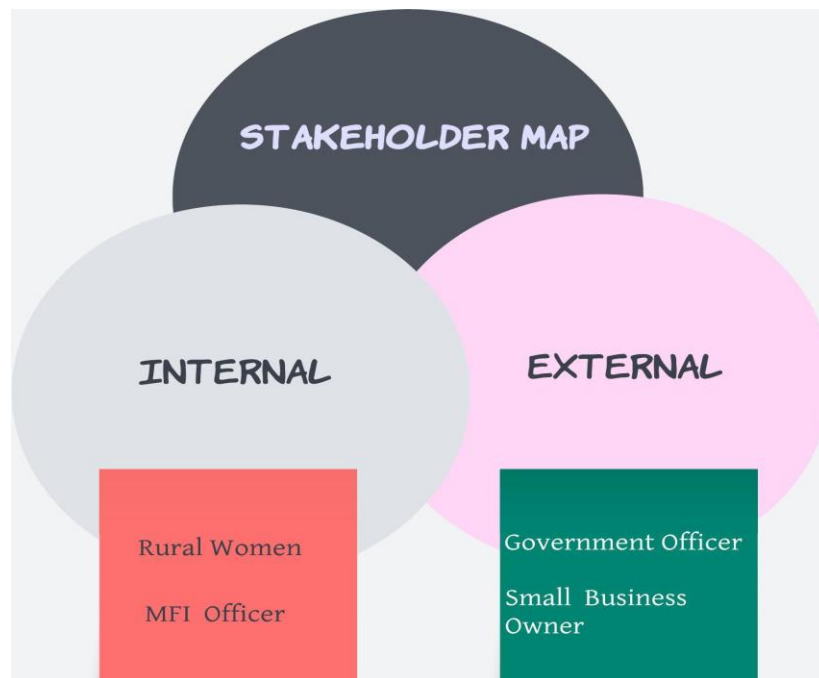


Figure 3. Stakeholder Map

4.5 Rural Women Clients Interview Summary

Question 1: How difficult was it for you to avail of microfinance services?

As a matter of fact, almost all the respondents were very positive about this question. In the current context of Bangladesh, it was not that difficult for them to get access to microfinance services. While 3 out of the 5 respondents didn't know about digitized loan services through bKash and other similar platforms, they didn't find it too difficult to go to MFI offices in person and apply for the loan, and eventually get them approved. Some training on digital services will make things more efficient, as all of the respondents are smartphone users.

Question 2: Were the terms and conditions of the loans favorable?

4 out of the 5 respondents said that they found the terms and conditions of the loans difficult. To begin with, the interest rates were really high compared to the other types of finance products offered by the same banks or financial institutions. On top of that, the penalties for late repayments seemed harsh to them, as 3 of them were involved in seasonal economic activities

that do not guarantee regular income all year long. On the brighter side, they mentioned that despite the high-interest rates, they were positive about getting the loan as the alternatives were even worse. The alternatives like loaning money from local loan sharks do not only come with high interest rates, but also the collateral. Traditional loans can't be approved for them, as they did not have significant collateral to show for.

Question 3: Were you able to use the loan money to start your own business?

All the respondents said they started their own business with the loan money. However, apart from one respondent, all of them started ventures depending on the local agricultural economy. One of them bought cattle, while the others cultivated crops and vegetables. The only respondent who did not engage in traditional agricultural activities, focused on a handicraft business and used the money to buy more raw materials.

Question 4: Did the microcredit help you improve your economic condition?

2 out of the 5 respondents said that their economic condition was improved due to the microcredit and the investment they made with it. The rest of them did not see any significant improvement in their economic condition.

Question 5: What can be done to make the microfinance service more optimal?

All of them suggested that lower interest rates will make the microfinance service way more accessible to all. On top of that, they also suggested that providing adequate training based on the knowledge they already have from doing agricultural activities will help them make better financial decisions, especially when dealing with microfinance.

4.5.1 MFI Officer Interview Summary

Question 1: Is it easy for rural women to acquire small loans without collateral from your organization?

All of the respondents that receiving loans from their organizations should not be too difficult for rural women. As their organizations specifically work for women who aren't able to show any collateral, the process has been made as easy as possible. However, they did mention that at times some loan seekers back off due to the high interest rates.

Question 2: Why do you think the interest rates are on the higher side?

According to the respondents, interest rates are on the higher side due to high operation costs. As these loan amounts are really small, the organizations have to depend on the volume of consumers. With more volume of consumers, more personnel and groundwork are necessary.

Question 3: How often do your clients default on loans?

It was quite amusing to know that microfinance consumers don't default on their loans that often. There are some isolated cases where loans were defaulted, but those are rare occurrences.

Question 4: Do you provide training to your microfinance clients?

2 out of the 5 respondents said that their organization provides training to consumers. Point to be noted, that these two organizations are NGOs, while the rest of them are either banks or financial organizations that don't operate training facilities.

Question 5: What can be done to improve the overall operation process?

From the responses, it was clear that two things can be very effective. First, increasing the digital literacy of the potential consumers, and second, improving the training facilities for the consumers.

4.5.2 Government Officer Interview Summary

Question 1: How difficult is it to regulate microfinance activities in rural Bangladesh?

All respondents agreed that it is fairly difficult to regulate microfinance operations in rural Bangladesh. It is mainly due to the lack of resources in remote areas for the government agencies to run proper regulations. On top of that, lack of manpower is another issue. Especially while resolving disputes, agencies face difficulties as in most cases the consumers don't have a clear idea about their rights, and aren't financially capable of hiring qualified lawyers.

Question 2: How often do disputes occur over microfinance repayment?

One respondent said that disputes occur more frequently in their area compared to most parts of the country. They mentioned that their area of operations is more prone to natural disasters, that come with massive financial blows for the consumers and they fail to repay the loans. The rest of the respondents said that the frequency of disputes is not that much in their area.

Question 3: What is the government trying to improve in regard to making rural women benefit from microfinance even more?

The government is trying to collaborate with all the related parties, that is to say, lenders and borrowers, to make the process easier. On top of that, the government is also trying to improve the training facilities so that rural women can engage in additional economic activities other than what they already know.

Question 4: How do the families of rural women react to them receiving loans and engaging in financial activities?

The families and relatives of the consumers mostly react positively to them getting loans and engaging in financial activities. However, in some isolated cases, especially in very remote areas, families and relatives don't take this well.

Question 5: What should be improved to make microfinance more effective for rural women?

To ensure better regulation, the government needs more funds so that more resources for training and hiring personnel can be allotted.

4.5.3 Small Business Owner Interview Summary**Question 1: Do you know any consumer of microfinance in your area of operation?**

All of the respondents replied that they know more than one consumer of microfinance. Two respondents mentioned having partnerships with microfinance consumers.

Question 2: Can your business be benefitted from more microfinance consumers in your area?

Three respondents said they can directly benefit from this, as at times their suppliers fail to fulfill their demand due to lack of funds. The rest of them were not too sure.

Question 3: What is the volume of economic transactions with your partners who are microfinance consumers?

Only two of the respondents have such partners, and they responded that the volumes were small.

Question 4: Can you expand your business with more suppliers in your area?

All of the respondents agreed that they would benefit from more suppliers in their area.

Question 5: Is your business seasonal?

One of the respondents said they had a seasonal business. The rest of them have multiple businesses, among which some are seasonal.

4.6 Stakeholder Characteristics and Pain Points

4.6.1 Rural Women Clients

Rural women are the primary beneficiaries and customers of the microfinance service. They are seeking financial support to start or expand their small businesses, improve their livelihoods, and provide for their families. For this study, they are going to be considered as one of the primary stakeholders. They fall into the category of direct stakeholders, as they are the end consumers of the service that needs to be developed.

4.6.1.1 Characteristics

Many rural women are involved in agricultural activities, either as farmers or laborers, and may seek loans to invest in farming, purchase livestock, or improve agricultural practices. Despite limited resources, rural women in Bangladesh often demonstrate a strong entrepreneurial spirit. They may engage in various income-generating activities, such as poultry farming, handicrafts, or small trading.

Rural women often bear the responsibilities of managing households, including childcare, cooking, and other domestic chores, in addition to their economic activities. Cultural norms and geographical constraints may limit the mobility of rural women, making it challenging for them to access financial services or markets.

Bangladesh is prone to natural disasters such as cyclones and flooding. Rural women and their families are often vulnerable to these events, which can disrupt their livelihoods and increase their need for financial support.

4.6.1.2 Pain Points

Many rural women in Bangladesh have limited access to formal education. They may have basic literacy skills but often lack advanced education and vocational training opportunities. More often than not, they lack vocational training as well. Lack of education impacts their financial decision-making, which jeopardizes proper usage of the loan (RAHMAN, 2019).

Rural women typically come from economically disadvantaged backgrounds, with low household incomes. They may engage in subsistence agriculture or small-scale informal businesses. As a result, there are situations where the loan is used to fulfill immediate needs like food instead of starting businesses.

A significant portion of rural women may not have access to traditional banking services and may rely on informal financial networks or moneylenders (Gustafson & Khandker, 2016). Rural women often lack valuable assets or collateral to secure loans from formal financial institutions, which can limit their access to credit.

4.6.2 Microfinance Institutions (MFIs)

These organizations (Banks, NGOs, etc.) provide the financial services, loans, and credit to rural women clients. They play a crucial role in assessing creditworthiness, disbursing loans, and collecting repayments. That's why they are another primary stakeholder in this study.

4.6.2.1 Characteristics

MFIs in Bangladesh, including BRAC, typically have a strong social mission focused on poverty alleviation, women's empowerment, and rural development. They aim to improve the economic and social well-being of rural communities (RAHMAN, 2019).

MFIs primarily target rural and underserved areas of Bangladesh, where access to formal financial services is limited. They recognize the importance of reaching rural clients to address financial inclusion.

MFIs like BRAC often serve low-income individuals and households, with a particular emphasis on women clients. Women's participation in microfinance programs is widespread due to the positive impact on gender equality and poverty reduction.

MFIs offer a range of financial products and services, including microloans, savings accounts, insurance, and financial literacy training. Microloans are a key product, providing access to credit for income-generating activities (RAHMAN, 2019).

Many MFIs, including BRAC, employ a group lending model where borrowers form small groups. Group members are collectively responsible for loan repayment, fostering a sense of community and peer support.

MFIs in Bangladesh typically offer collateral-free loans, which are essential for low-income borrowers who may not have valuable assets to pledge as collateral. BRAC and similar MFIs often have a strong presence in the communities they serve. They establish local offices, recruit field staff, and build trust within the community.

Interest rates charged by MFIs can be relatively higher than those of traditional banks due to the higher costs associated with serving remote and low-income clients. However, they are often lower than rates charged by local moneylenders.

4.6.2.2 Pain Points

Striking a balance between providing affordable microloans to low-income borrowers and covering operational costs is challenging, especially when regulatory bodies impose interest rate caps on MFIs. Also, maintaining a high-quality loan portfolio can be difficult when

serving low-income clients who may face economic vulnerabilities. Ensuring timely repayment and managing loan defaults is an ongoing challenge.

Securing sustainable funding sources to support the growth of microfinance operations can be challenging. MFIs often rely on a mix of donor funding, grants, and commercial borrowing, and balancing these sources can be complex.

Microfinance is inherently risky due to the economic vulnerability of the target clientele. MFIs must have effective risk management strategies in place to mitigate credit, operational, and external risks (Osmani, 2014). The risk of over-indebtedness among microfinance clients is a significant concern. It can result from clients taking loans from multiple MFIs or informal lenders, leading to repayment difficulties.

Serving clients in remote and underserved areas presents logistical challenges, including infrastructure limitations, transportation issues, and communication barriers (Bagazonzya, 2010). Ensuring adequate liquidity to meet the demands of clients for deposits and withdrawals while managing cash flow efficiently is a constant challenge.

Promoting financial literacy and responsible borrowing and lending practices among clients is crucial but can be resource-intensive. Moreover, Bangladesh is prone to natural disasters, such as cyclones and floods, which can disrupt the lives and livelihoods of clients and impact loan repayment.

As technology evolves, MFIs must adapt by incorporating digital tools and services into their operations. This transformation can be challenging, especially for smaller MFIs with limited resources. And lastly, traditional gender roles and cultural norms can influence women's participation in microfinance programs. Convincing male family members to support women's involvement can be a challenge.

4.6.3 Government Authorities

Various government departments and agencies in Bangladesh have a significant stake in microfinance programs. They may regulate and oversee MFIs to ensure compliance with laws and regulations. On top of that, the government can fulfill its duties of poverty alleviation when microfinance models work and make more women financially capable.

4.6.3.1 Characteristics

Government agencies, such as the Bangladesh Bank and the Microcredit Regulatory Authority (MRA), oversee the activities of MFIs to ensure compliance with regulatory requirements. They conduct inspections and audits to assess MFI performance and financial stability. Government authorities develop policies and guidelines that guide the microfinance industry's growth and development. They often collaborate with stakeholders, including MFIs, to formulate policies that promote financial inclusion and protect the interests of borrowers (Osmani, 2014).

MFIs operating in Bangladesh typically require licenses or registrations from government authorities to offer microfinance services. These licenses ensure that MFIs meet specific standards and comply with regulations. Government authorities require MFIs to submit regular reports on their financial performance, client outreach, and compliance with regulatory requirements. This data helps authorities assess the health of the sector and make informed decisions.

Government authorities are also responsible for safeguarding the interests of microfinance clients. They may establish mechanisms for addressing client complaints and ensuring that MFIs adhere to fair lending practices.

4.6.3.2 Pain Points

Government authorities often lack the financial and human resources needed to adequately monitor and regulate the growing number of microfinance institutions (MFIs) operating in rural Bangladesh. This limitation can hinder their ability to conduct comprehensive inspections and assessments. The microfinance sector in Bangladesh has experienced rapid growth over the years, with many new MFIs entering the market. Keeping up with the proliferation of institutions and ensuring that they all adhere to regulatory guidelines is challenging.

There is a complex and evolving regulatory framework governing microfinance in Bangladesh, involving multiple government agencies and entities. Coordinating efforts and maintaining consistency across regulations can be difficult (Osmani, 2014). On top of that, government authorities may struggle with information asymmetry, meaning they have limited access to real-time data on the operations and financial health of MFIs. This can hinder their ability to identify potential issues or risks in a timely manner.

Ensuring the protection of microfinance clients, particularly in rural areas, can be challenging. Government authorities may face difficulties in monitoring and addressing issues related to client over-indebtedness, coercion, and unethical lending practices. Collaboration and coordination among different government agencies responsible for microfinance regulation can sometimes be fragmented, leading to inefficiencies and inconsistencies in oversight. The increasing digitization of financial services and the use of technology in microfinance require government authorities to adapt and develop the necessary regulatory frameworks. This can be a complex task.

4.6.4 Local Businesses and Suppliers

Local businesses that supply goods and services to rural women entrepreneurs may benefit from increased economic activity generated by microfinance programs. They are a secondary stakeholder, as they are not directly involved in the credit disbursing process. However, they play a vital role in the usage of the said credit, on which the success of the service relies heavily.

4.6.4.1 Characteristics

Local businesses and suppliers often provide essential goods and services to microfinance clients. These may include agricultural inputs (seeds, fertilizers, pesticides), livestock, raw materials for handicrafts or small-scale manufacturing, and various household products (Osmani, 2014). By providing goods and materials, local businesses indirectly contribute to the income-generating activities of microfinance clients. For example, a farmer may purchase seeds and fertilizers to improve crop yields, while a craftsperson may buy raw materials to create marketable products.

Microfinance clients often need access to markets to sell their products or services. Local businesses can serve as intermediaries or buyers for these clients, helping them find markets for their products. Local businesses can serve as mentors and role models for microfinance clients who are starting or expanding their own enterprises. They can provide guidance on business operations, marketing, and customer relations.

4.6.4.2 Pain Points

Many rural businesses in Bangladesh, such as agriculture-related enterprises, experience seasonal fluctuations in demand and income. They may need financial support to bridge income gaps during off-seasons. Small and medium-sized local businesses often have limited

capital for investment, leading to constraints in expanding their businesses or diversifying product offerings.

Local suppliers may face challenges in sourcing quality raw materials or goods for resale, which can affect the quality and competitiveness of their products. In rural areas of Bangladesh, inadequate infrastructure, including transportation and storage facilities, can lead to increased costs and supply chain inefficiencies.

5. Optimal Microfinance Service Design Results and Discussion

In this section of the study, the findings from the empirical part will be analyzed and discussed to develop the optimal microfinance service for rural Bangladeshi women. This section will cover the later three parts of the double diamond method: define, develop, and deliver.

5.1 Define

From analyzing the literature and the data retrieved from unstructured interviews of each stakeholder categories, three tools will be used to define the service.

5.1.1 Affinity Diagram

The key question for the affinity diagram to include the findings of the study is: “What are the major challenges in the microfinance scene for rural women in Bangladesh, and what can be done to improve it?”

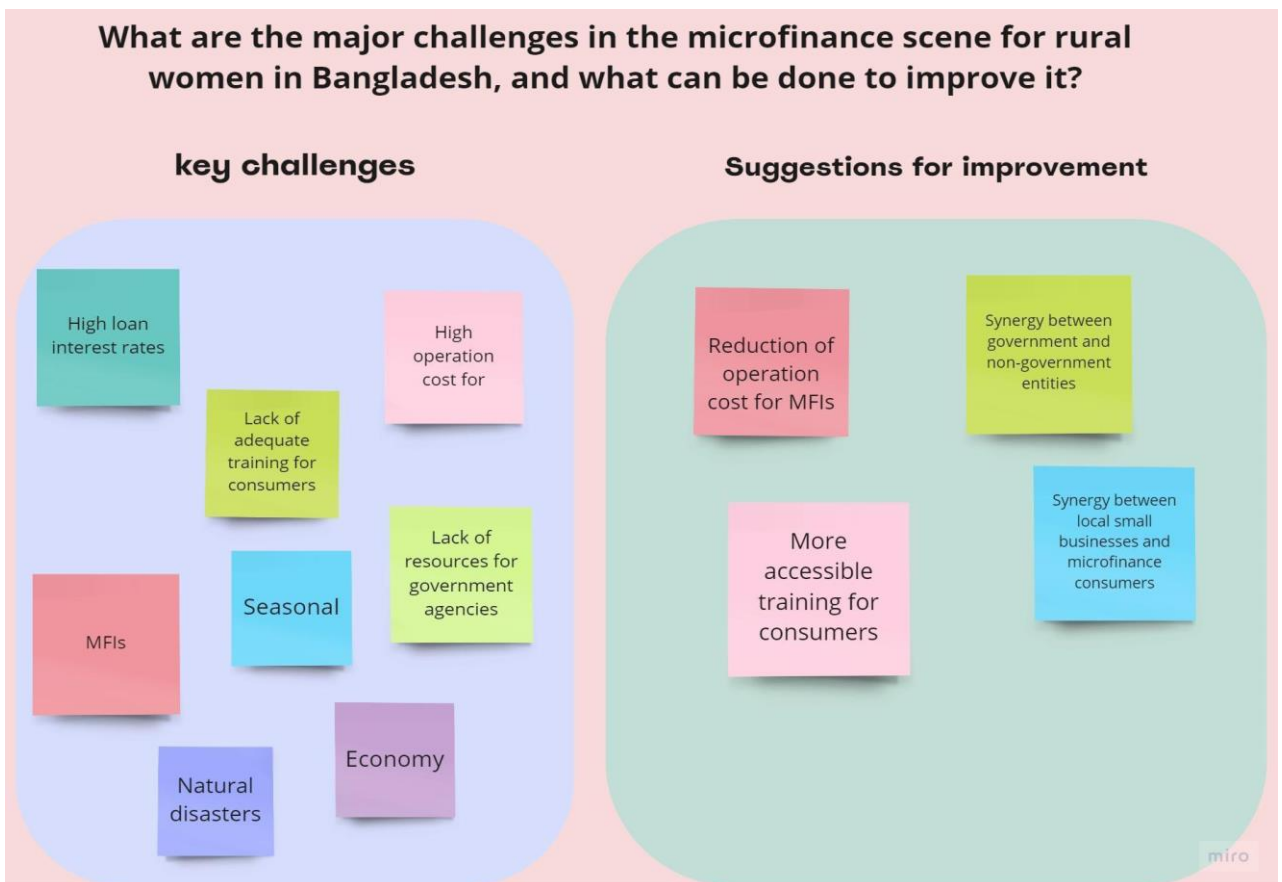


Figure 3. Affinity Diagram

The key challenges based on the stakeholder analysis are:

- High loan interest rates
- High operation cost for MFIs
- Lack of resources for government agencies
- Lack of adequate training for consumers
- Seasonal economy
- Natural disasters

Here are the overall suggestions for improvement:

- Synergy between government and non-government entities
- Synergy between local small businesses and microfinance consumers
- More accessible training for consumers
- Reduction of operation cost for MFIs

With these improvements, it will be possible for rural women in Bangladesh to have better access to microfinance services. On top of that, these improvements will make sure that they will receive the proper guidance and training to make the best use of the loan money. It will enable them to repay the loan in time, and improve their economic condition.

5.1.2 Value Proposition Canvas

The Value Proposition Canvas is a tool developed by Alex Osterwalder et al. (2014) to ensure that a product or service is positioned around what the customer values. It breaks down into two parts: the customer profile (which includes customer jobs, pains, and gains) and the value proposition (which includes products & services, pain relievers, and gain creators). Given the details you've provided, here's a breakdown of the Value Proposition Canvas in the context of enhancing microfinance in Bangladesh:

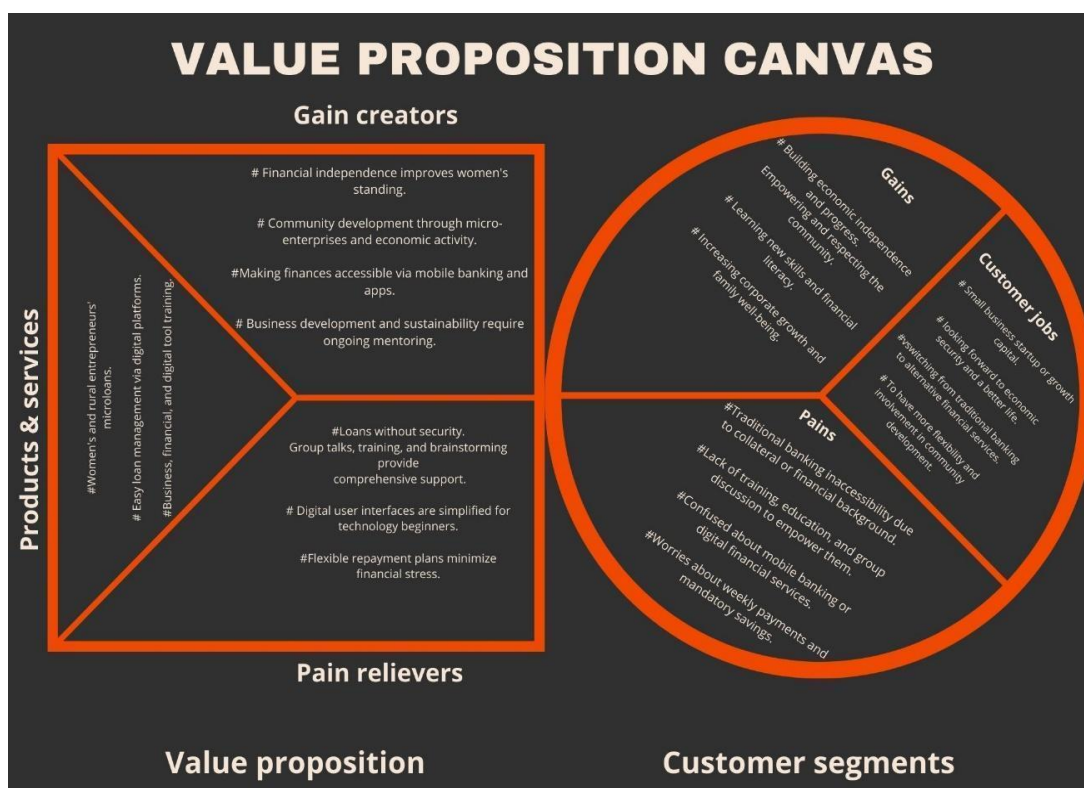


Figure 4. Value Proposition Canvas

Using the Value Proposition Canvas, developers may verify that their solutions meet the requirements and wants of rural women in Bangladesh. The canvas ensures a human-centric approach throughout the Double Diamond process by focusing on the "customer profile" (what these women want, their pain points, and what they gain from the solutions) and the "value map" (how MFIs can provide value, their services, and their benefits)

5.1.3 Persona

From netnography and unstructured interviews, a persona of the target audience is developed. It has four parts, introduction, goals, frustrations, and motivations.



Figure 5. User Persona

From this persona, it is possible to understand the pain points and how to help the consumer deal with the pain points. In future, this persona can further be used to develop other services for the same demographic, even if those services are not associated with microfinance.

5.2 Develop

In this section, the core idea of the proposed service is going to be presented. For this section, brainstorming and collaborating with the stakeholders through unstructured interviews were used.

5.2.1 The Proposed Service

The service would be a common digital platform to bring all the stakeholders together and address their pain points. That is to say, it is going to be a financial platform where the target consumers, which means, the loan-seeking women living in rural areas of Bangladesh will be able to open accounts. On top of that, MFIs and NGOs will also present their financial products specifically tailored to this demographic. In their profiles, the target consumers will add their economic interests, and what they intend to do with the loan money. Based on their profiles, they will be suggested certain online/offline training options which will then allow them to receive the knowledge required to make the best use of the credit. Both government and non-government entities can enlist their training materials in this process. On top of that, government agencies will have oversight of the lending and borrowing activities. Lastly, local small businesses will be able to send their supply requirements through the platform to a wide range of rural women involved in different economic activities.

5.2.2 Benefits of Each Party

Rural Women

- Easy access to different microfinance options
- Access to training
- Products tailored to their specific needs
- Access to local businesses to make partnerships
- Probable lower interest rates

MFIs

- Low operation cost
- Access to loanee profiles
- More informed loanees
- Easy expansion

Government Entities

- Easy oversight
- Digital trail

Local Businesses

- Larger pools of potential partners
- Expansion opportunities

5.2.3 Challenges

Services such as MFIs face potential challenges.

- As this platform will heavily depend on collaboration between different parties, it might be difficult to bring everyone on the same page. Different MFIs are each other's competitors, and they may be reluctant to share the same platform with each other. The same goes for local businesses.

- Potential end consumers may not be digitally aware enough to be able to use the service properly. They will need heavy service briefings before they become comfortable with the platform.

5.2.4 Probable Solutions

Here are the proposed ways to deal with the potential challenges:

- The parties need to be briefed about the benefits they are going to get from the platform. Being able to expand via an online platform and eventually being able to reduce the operation costs, MFIs can be brought under the umbrella of this service. As for the local businesses, they can be convinced by demonstrating the benefits they will receive compared to the competitors who will not use the service.
- The service marketing needs to be focused on the end consumer first; a large chunk of the marketing material should be focused on training the potential consumers. Bkash has proven that this works, and their online application is very conveniently being used by the rural population in the country.

5.3 Deliver

This is the last stage of designing an optimal microfinance service for the rural female consumers of Bangladesh. The tool used to deliver the service is the service blueprint. In the figure six the service blueprint is displayed.

Digital Microfinance Platform					
Customer:	Rural Microfinance Loan Seeking Women		Scenario:	Receiving Loans and Making Proper Usage of it	
Phase Name	Account Opening	Seeing Product Options	Receiving Training	Applying for Loan	
Evidence	User account information	List of microfinance products listed by MFIs	Training material listed on the platform	Application through the platform	
Customer Actions	Providing personal and financial information, along with field of interest, and previous experiences.	Scrolling through the platform website and application to check a wide variety of microfinance options	Signing up for training material and receiving the training	Filling up the online loan application form	
Frontstage Actions	Filling up the necessary information fields	Microfinance product options listed on the home section	Choosing appropriate trainings from provided options and completing them	Filling up the necessary information fields	
Backstage Actions	The information getting stored in the database	Displaying products to consumer based on their provided information	Uploading training materials and showing them to consumers based on their profile	Assessing the applications and approving/rejecting them	
Support Processes	Making the consumer aware of the service features through marketing material	Using suitable algorithms to display the most suitable product offering to each consumer	Communicating with the consumers to encourage them to receive training before making financial decisions	Oversight of the application and lending process	

Figure 6. Service blueprint

6. Conclusion

In this final chapter, the answer to the study's research question based on the empirical data analysis, and the theoretical framework will be presented. The answer will then be followed by the recommendations and limitations of the study. Some suggestions for future studies in the same field will also be included in this chapter.

6.1 Answer to the Research Questions

The prime focus of this study was to develop an optimal microfinance service where the pressure points of the primary stakeholders, women living in the rural areas, will be addressed. Throughout my research the challenges faced by the primary stakeholders were identified, the role of the different parties and institutions in the microfinance economy were discussed, and ways to increase the participation of more rural women in microfinance were discovered. Thus, the research promptly answers the research questions and opens new doors for further studies in the subject matter area.

The below descriptions of how the research addresses the research questions:

What are the most effective ways of using service design tools to create an optimal financial service for rural women in Bangladesh seeking microfinance services?

The research indicates that the most efficient methods of applying service design tools entail conducting an in-depth analysis of stakeholders. The stakeholder analysis in this research was conducted in two ways. First, the available literature on the subject matter was studied and the previously discovered challenges and needs of the primary stakeholders were identified. Four different stakeholder groups were interviewed. The interviews provided with a direct opportunity to understand how the ground reality is following the previous researches conducted on the role of microfinance in rural women's lives in remote areas of Bangladesh. To make the stakeholder analysis more effective, the respondents were chosen from different areas of the country.

The study entailed contrasts and comparisons between the respondents' viewpoints, which established the foundation for creating a shared platform that would bring together all significant parties. After that, the Double Diamond technique was successfully implemented using stakeholder analysis. This method, which was especially appropriate for this study, made use of all four stages of the procedure to make efficient use of the empirical data and determine which tools would be best for completing the service.

Finally, the service design blueprint offered the service more depth and was a huge help in documenting all the findings from the empirical research. The service design blueprint's four stages show how the product would easily reach rural women who are the end user, facilitating their involvement in microfinance. The blueprint also includes frontend and backend actions to show what happens when a consumer takes action, and how the action leads to the following stage of the service delivery process. Now it will be important to

turn the concept into a real service. The Bangladesh government can take the initial initiative to bring all the stakeholders to the platform to collaborate in building the service.

How can we promote more women's participation in microfinance programs?

For promoting more women's participation in microfinance programs, two elements are crucial. The first element is awareness. As per the interview respondents, microfinance may not be very effective when the end consumer lacks awareness. In this case, awareness stands for financial knowledge, the development of entrepreneurial skills, and a basic understanding of microfinance and its many functions. Due to a lack of awareness, many rural women end up not getting microcredit or becoming unable to pay the loan back without getting financially harmed. Awareness is needed in all stages, starting from fund management to applying for microcredit, and collaborating with local vendors to become suppliers, and raw skill development. We need to teach people how to use the technology that is needed for the service we're proposing in this study so that it works well. That is to say, browsing the internet, filling out online forms, providing the required information, and getting loan approval through a mobile application are among the key things that must be included in training. The training can be conducted by the ground staff of financial organizations involved in the microfinance industry of Bangladesh.

The second piece of the puzzle is social reform and protection for women who avail themselves of microfinance services to become financially solvent. Even today there are areas in the country where women becoming active in the economy is frowned upon. Societal reforms are necessary to make sure that the primary stakeholders of microfinance do not get stigmatized in their own communities. Moreover, it needs to be made sure that the credit received by rural women is used by the women themselves. In a patriarchal society like rural Bangladesh, the male counterparts of the recipients of a loan may abuse the funds rural women receive from financial institutions under the microfinance model.

Law enforcement agencies need to be more active regarding this potential situation. This way it will be possible to include more women in microfinance.

What are the pain points experienced by the users of microfinance services?

The users of microfinance services mostly come from poverty. For them, the high interest rate of microcredit loans is one of the biggest obstacles faced by the end users of microfinance services. As operating microfinance services in the rural parts of the country is not cheap, financial institutes need to impose higher interest rates than regular loans. It would be very difficult to bring the interest rates down without massive infrastructural development in the rural areas, which is highly unlikely in the short term. As a result, microfinance users need more training so they can start businesses that will help them, despite the fact that the loans they take out have high interest rates.

The other key challenge faced by the end consumers is lack of resources and training. This is one problem that is directly addressed in the service designed in this research. The mobile application through which microfinance services will be delivered to rural women will include necessary training and skill-development material that are crucial for making the best usage of funds availed through microfinance services offered by financial institutions and NGOs.

Recommendation

The recommendation from this research is for the Bangladeshi government to be more involved in the microfinance industry. Other than only taking a regulatory role, the government and its agencies can be direct contributors to the betterment of all the stakeholders. As government agencies and institutions have more access to rural parts of the country compared to financial institutions and NGOs, more involvement of the government will ensure all the parties become more willing to collaborate with each other.

The Bangladeshi government is not alien to such direct involvements. Nagad is a Mobile Financial Service that was made with help from the Bangladesh Post Office. It has done a great job of getting into the country's Mobile Financial Service market. It is one of the strongest competitors of bKash, the market leader who entered the market with a first mover advantage. It is expected that the government's extended involvement in microfinance in rural areas of Bangladesh will help more rural women to avail microfinance services.

Limitations

The study comes with a few limitations that need to be addressed. The first limitation is the way the interviews were conducted. As it was not possible for the researcher to travel to Bangladesh and conduct the interviews face-to-face, all the interviews were conducted online. This did not give the researcher with enough opportunities to observe the respondents. The interviews had a lot of unstructured data, as the questions were open ended. It was challenging to include all the data provided by the interviewees in the research, so the most relevant data to the study was included in the empirical setting. Thirdly, different perspectives from different demographics were taken into account for the study, which made the research area broad in some aspects. And lastly, the sample size could have been larger for the research to be more conclusive. With a larger sample size, the accuracy of the research findings would have been significantly improved.

Contribution and Future Research

This research attempted to give an overall picture of the challenges faced by rural women in availing themselves of microfinance services, as well as the obstacles faced by financial institutions in delivering the service in a more convenient way. However, specific areas of the country require more research and study to comprehend the unique challenges that

stakeholders residing in those areas face. Other countries, such as India and Cambodia, also face significant challenges with poverty and economic solvency among rural people, particularly women. More studies can be conducted to identify if similar problems also affect the microfinance services of those countries as well (e.g., India and Cambodia). With further studies in these countries, the service can be developed even further and introduced in more areas effectively.

7. Reference

Ali, S. (2021). Global Findex 2021: How digital wages empower bangladeshi women. Bill & Melinda Gates Foundation. <https://www.gatesfoundation.org/ideas/articles/2021-findex-report-financial-inclusion-benefits-bangladeshi-women>

Armendariz de Aghion, B. and Morduch, J. (2005) The Economics of Microfinance. MIT Press, Cambridge, 352 p.

Bagazonzya, H. K. (2010). Linking up and reaching out in Bangladesh: Information and Communications Technology for Microfinance. World Bank.

Bateman, M., & Chang, H.-J. (2012). Microfinance and the illusion of development: From hubris to nemesis in thirty years. *World Economic Review*, 1(1), 13-36.

Fernandez, A.J. (2009). Microcredit and Women's Outward Mobility in Rural Bangladesh: A Study of the Grameen Bank. Master's thesis. California State University, Chico.

Gustafson, M.T. and Khandker, S.R. (2016). The Impact of Microcredit on Employment: Evidence from Bangladesh and Ethiopia. World Bank Policy Research Working Paper No. 7607.

Islam, M.S., Hasanuzzaman, S., Rahman, M.M., & Islam, M.S. (2019). Empowering Women through Microcredit in Bangladesh: An Empirical Study. *International Journal of Financial Studies*, 7(3), 37.

- Islam, H. B. (2022, July 8). Smartphone users will grow to 63% by 2025: Report. The Business Standard. <https://www.tbsnews.net/tech/smartphone-users-will-grow-63-2025-report-455654>
- Kabeer, N. (2005). Is Microfinance a 'Magic Bullet' for Women's Empowerment? Analysis of Findings from South Asia. *Economic and Political Weekly*, 40(44/45), pp. 4709-4718.
- Khandker, S.R., Samad, H.A. and Ali, R. (2016). Does Access to Finance Matter in Microenterprise Growth? Evidence from Bangladesh. *World Development*, 84, pp. 58-69.
- Khandker S. R., & Samad H. A. (2016). Dynamic effects of microcredit in Bangladesh. World Bank Publications.
- Khan, S.T., Bhat, M.A. and Sangmi, M.-U. (2022). Can microfinance-backed entrepreneurship be a holistic empowerment tool for women? Empirical evidence from Kashmir Valley, India. *Journal of Business and Socio-economic Development*, 2(2), pp. 117-136.
- Ledgerwood, J., & Gibson, A. (2013). The microfinance handbook: A practitioner's guide to the microfinance revolution. World Bank Publications.
- Liu, C. (2011). Customer segmentation and evaluation based on RFM, cross-selling and customer loyalty. 2011 International Conference on Management and Service Science. <https://doi.org/10.1109/icmss.2011.5998805>
- Mazumder, M.S.U. (2022). Microfinance and Rural Livelihoods: A Study of Women Borrowers in Bangladesh. *Journal of Rural Studies*, 67, pp. 34-45.
- Morduch, J., & Haley, B. (2002). Analysis of the effects of microfinance on poverty reduction. NYU Wagner Working Paper No. 1014.
- Nawaz, F. (2019). *Microfinance and Women's Empowerment in Bangladesh: Unpacking the Untold Narratives*. Cham: Springer.
- Nobel Prize Committee. (2006). The Nobel Peace Prize for 2006 [Press release].
- Osmani, S. R. (2014). Has microcredit helped the rural poor of Bangladesh?: An Analytical Review of the evidence so far. Institute of Microfinance.

Osterwalder, A., Pigneur, Y., Bernarda, G., Smith, A., & Papadacos, T. (2014). *Value Proposition Design: How to Create Products and Services Customers Want*. John Wiley & Sons.

Rahman, A. (2019). *An ethnographic investigation of Grameen Bank lending practises concerning women and microcredit in rural Bangladesh*. Published by Routledge.

Ribeiro, J.P.C., Duarte, F. and Gama, A.P.M. (2022). Does microfinance foster the development of its clients? A bibliometric analysis and systematic literature review. *Financial Innovation*, 8(34).

Stickdorn, M., Adams, L., Hormess, M., & Schneider, J. (2020). *This is service design doing: Applying service design thinking in the real world*. O'Reilly Media.

World Bank. (2018b). *Bangladesh: Poverty Assessment*. [online] [Accessed 14 Aug. 2023].

Yunus, M. (2007) *Creating a World without Poverty: Social Business and the Future of Capitalism*. Public Affairs, New York.

Yunus M., & Jolis A. (2007). *Banker to the poor: Micro-lending and the battle against world poverty*. PublicAffairs.

Appendix 1

List of interview respondents:

Respondent Group	Respondent Code	Respondent Location (District in Bangladesh)	Respondent Designation	Interview Medium	Interview Language
Rural Women	A1	Rangamati	House wife	Messenger	Bengali
	A2	Pirojpur	Handycraft business owner	Messenger	Bengali
	A3	Sunamganj	Farmer	Messenger	Bengali
	A4	Netrokona	House wife	Messenger	Bengali
	A5	Kushtia	House wife	Messenger	Bengali

MFI Official	B1	Rangamati	Campaign manager	Whatsapp	Bengali
	B2	Pirojpur	Project manager	Whatsapp	Bengali
	B3	Sunamganj	Development program coordinator	Whatsapp	Bengali
	B4	Netrokona	Awareness and inclusion officer	Messenger	Bengali
	B5	Kushtia	Awareness and inclusion officer	Messenger	Bengali
Government Employee	C1	Dhaka	Assistant Commissioner	Whatsapp	Bengali
	C2	Cumilla	District Commissioner	Whatsapp	Bengali
	C3	Sylhet	Upazila Nirbahi Officer	Whatsapp	Bengali
	C4	Mymensingh	Upazila Nirbahi Officer	Whatsapp	Bengali
	C5	Bogra	Upazila Nirbahi Officer	Whatsapp	Bengali
Local Small Business Owner	D1	Rangamati	Shopowner	Messenger	Bengali
	D2	Pirojpur	Shopowner	Messenger	Bengali
	D3	Sunamganj	Shopowner	Messenger	Bengali
	D4	Netrokona	Clothing business owner	Messenger	Bengali
	D5	Kushtia	Cattle business owner	Messenger	Bengali