

THE MAGIC KEY? MICROCREDIT FINANCE AND ENVIRONMENTAL SUSTAINABILITY

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ABSTRACT

The main objective of this study is to explore the relationship between microcredit finance and environmental sustainability. To accomplish this purpose, a secondary research methodology has been employed to arrive at the outcomes. The findings suggested that the MFIs (Microfinance Institutions) are significantly impacted by leverage and liquidity problems, emergency loans, capital erosion, government bail-out and high default rates which impact the portfolios of MFIs both directly and indirectly. The clients of MFIs also experience socioeconomic impacts through climate-led conflicts, climate-led migration, livelihoods concerns and food security, and depletion of the MIF clients' health and wealth. In addition to this, the climate change impacts the human and natural systems, specifically, the food and human health, society, settlements, and insurance, agriculture, water resources, and ecosystems. Besides this, the weather events such as flooding and droughts, the rise of sea level, the rise in temperature, and extreme weather events are some of the fundamental examples of climate changes. However, the lack of climate change strategies does not support the cause either. Therefore, it has been recommended that appropriate microcredit practices should be adopted, and effectively complemented by the proximity finance to promote mitigation and adaptation strategies. Through an establishment of trustful and productive relationships with the clients, and by performing supervision and monitoring on a consistent basis during the entire course of the loan, the MFIs would have the ability to assume a strategic position. The MFIs will, therefore, have a crucial role to play in the promotion of environmental sustainability especially because of their capacity to reach out to the poorest of the people.

Keywords: Microcredit finance, environmental sustainability, MFIs, impact, climate change.

INTRODUCTION

The microfinance sector has expanded dramatically with the introduction of the contemporary microcredit programs. These programs have the potential for sustainable and equitable development. The microfinance industry is one of the most dynamic industries that has evolved in this modern era of globalization and poverty alleviation. This industry adopts a consistent approach in its business practice across various institutional settings. According to Mersland *et al.* (2013), the microfinance industry is growing rapidly and has the potential to become the largest banking market with respect to the number of customers catered. In contrast to the commercial and traditional banking market, the microfinance sectors offer greater emerging and developing markets and a broader geographical coverage.

In simple terms, microfinance is defined as the delivery of financial services to the clients that have low income. Rooyen *et al.* (2012) have emphasized that this is carried out through an array of services including micro-savings, micro-insurance, microcredit, and money

transfers. Whereas, sustainability is a multidimensional term which relates to the protection of environmental limits and interrelation of economic performance with the needs and welfare of the society, thereby, offering economic prosperity by mitigating and internalizing the negative social and environmental externalities, and producing a positive society (Boons & Lüdeke-Freund, 2013). Therefore, it can be established that the aspect of sustainable development embraces three fundamental dimensions – social, environmental, and economic while maintaining an intelligible balance among them. However, the dimension of governance has also been added as an extension to the triple bottom line accounting framework. In this regards, Bakker *et al.* (2014) have reported that it is imperative to identify the best mechanisms and structures for accomplishing optimal accountability, participation, and transparency in its governance systems.

Beisland *et al.* (2015) have documented that the microcredit has attained immense customer attention and public satisfaction, this growing fascination will contribute tremendously towards the expansion and solidification of the financial system. Similarly, Busch *et al.* (2016) have stated that this system impacts the sustainable development in both direct and indirect manner. The outcomes of this research will enable its audience to attain clarity with regards to the fundamental concepts and terms of microcredit from the perspective of environmental sustainability for the purpose of facilitating a holistic comprehension among the academics and the practitioners.

Aims and Objectives

The main aim of this research paper is to establish a relationship between microcredit finance and environmental sustainability. Following are the objectives for this research:

1. To determine the relationship between microcredit finance and environmental sustainability.
2. To put the perspective of scientific evidence on microcredit into consideration, and to provide a detailed literature review considering the relation between microcredit finance and environmental sustainability.
3. To furnish appropriate recommendations for the future research with respect to microcredit finance and environmental sustainability.

Research Questions

The main research questions for this study are:

1. How are microcredit finance and environmental sustainability associated with each other?
2. What recommendations can be given to the future research regarding the relationship between microcredit finance and environmental sustainability?

LITERATURE REVIEW

Theoretic Overview

Globally, it has been observed that the microcredit programs for the economic development of rural areas have specifically focused on the accomplishment of reduced, and therefore, equitable gender disparity, sustainable livelihoods of the rural borrowers, and sustainability of the necessary institutions (Nawai, & Shariff, 2010). Since decades, the bilateral and multilateral development agencies have shown a significant inclination towards microcredit programs to formulate and execute their projects in the predetermined areas with a vision to mitigate poverty and surpass the obstacles to acquire loans from recognized sources (Islam, 2016).

Prior to the introduction of microcredit finance, it was anticipated to work as a complementary system for the development projects. However, Bonomo & Kirchstein (2010) stated that arguments soon emerged about whether the microcredit finance should be considered in a holistic manner, or should it be viewed as an independent entity. If the activities pertaining to microcredit is viewed from a global perspective, it is evident that monetary credit is not of much help when getting the poor out of poverty is the primary intention. It, in fact, puts them into an unwanted cycle of poverty. Keeping this in view, the microcredit firms have recognized that for the poor and the needy to succeed with the microcredit finance, the needs pertaining to awareness, empowerment, education, and health should be the fundamental considerations (Leatherman *et al.*, 2011). As a result, the financial organizations have integrated broader development issues, for instance, environment, education, health, gender, energy provision, and legal rights. According to Krumm (2010), some microcredit organizations, for instance, CRECER in Bolivia, has shown that the microcredit organizations can be self-sustainable and profitable simultaneously without the necessitation of offering nonfinancial services.

In microcredit finance, the majority of the development projects, such as education and health, are identified with microcredit. However, the environmental issues have rarely been linked with microcredit finance. Due to the exploitation of natural resources, climate change, and other environmental issues, supporters and donor of microcredit finance began to stress on an environment-friendly microcredit finance (Forcella, & Hudon, 2016), in which the borrowers are held accountable for the well-being of the immediate environment and the ecosystem.

However, it has been argued that the enhanced financial capacity of the borrowers may lead to increased use of pesticides, fertilizers etc., impacting the health, groundwater, and quality of soil, and therefore, the ecosystem. Nonetheless, the improved financial capability of the needy rural households may contribute positively towards the enhanced environmental quality through the accessibility of environmental-friendly technologies, enhanced sanitation, safe water, and improved social awareness with regards to the environmental conservation.

Although the concept of microcredit is relatively new, the microcredit firms have been willing to apply the concept appropriately to achieve a reduction in poverty. However, the progress of microcredit organizations is usually halted due to the insufficiency or unavailability of measuring tools for the microcredit organizations. According to Allet (2011), these tools include the implementation of non-financial services, for instance, environmental awareness-raising campaigns, offering microcredit to encourage environmental-friendly activities, managing environmental risks, mitigating their internal ecological footprint, and adopting relevant environmental policies. Nevertheless, it is heartening to witness that the microcredit organizations are ready to address the challenges that come with environmental sustainability.

Empirical Evidence

In their study of the environmental orientation of small enterprises, the main objective of Shahidullah, & Haque (2014) was to empirically and theoretically explore the ecological influences of small-scale startups in developing countries. To accomplish this purpose, 6 microenterprises in Bangladesh, which adopted the green microcredit strategies were assessed in terms of social contributions, economic vitality, operational procedures, goals, and their influence on local ecological sustainability. The findings suggested that, predominantly, the organizations were not only sustainable, but adhered to the existing

ecological standards, while playing a crucial part in a number of vital ecosystem services, and maintaining appreciable profit margins to ensure long-term economic and environmental sustainability. The findings also signified that these enterprises were comprehensively guided by the non-governmental organizations (NGOs), which not only address the issues of climate change but make considerable contributions towards the ecological sector.

According to the study of Bhuiyan *et al.* (2012), the primary objective of this study was to furnish a conceptual explanation of sustainable livelihood and microcredit. In addition to this, this study has also elucidated the conceptual association of microcredit and the framework for sustainable livelihood. The findings suggested that microcredit is crucial for the poor women. The authors, therefore, recommended a microcredit model for poverty alleviation to ensure that the livelihood is integrated with a fair bit of sustainability.

In the study of Rauf (2012), the main objective of the author was exploring microcredit to deal with the issues relating to poverty, because it affects approximately 50% people in the world. To accomplish this purpose, the author combined his understanding of the microcredit initiatives for green development, research on Grameen Bank of Bangladesh, his internship experiences in Alterna Saving' Community in Canada. The study made use of two samples, one from the Alterna Savings Credit Program in Toronto, the other one from Grameen Shakti Credit Systems in Bangladesh. The findings revealed that, in both the sample cases, the microcredits positively impacted the sustainable development of the environment.

Conceptual Framework

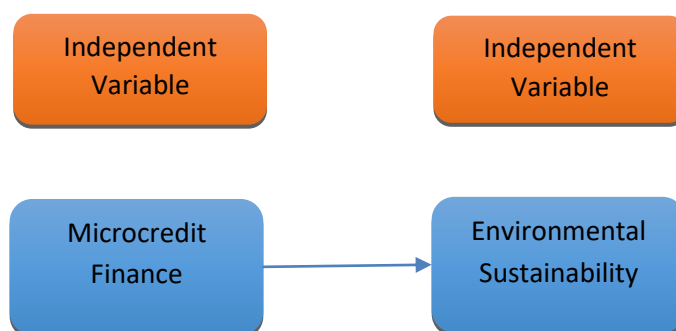


Figure 1 Conceptual Framework (Source: Self-created)

Hypothesis

H₁: The microcredit finance positively contributes to the environmental sustainability

H₀: The microcredit finance negatively contributes to the environmental sustainability

Literature Gap

The studies that discuss microcredit finance and environmental sustainability in the same light are quite limited. In addition to this, most of these studies are conducted with respect to the Asian perspective, which is starkly different from the Western culture. Besides this, a large part of the studies has discussed a holistic impact of the finance sector on environmental sustainability, and only a few studies narrowed down the aspect of finance to microcredit finance to conduct their research. Therefore, this study looks to mitigate the aforementioned gaps by furnishing a comprehensive primary analysis along with an appropriate secondary consultation.

METHODOLOGY

Introduction

Neuman (2014) defines the research methodology as a systematic approach that the researchers employ for finding answers specific to their research problem. Therefore, a sequential approach is usually undertaken to accomplish this purpose and to forecast the final outcome without the occurrence of any complexity. The methodology of this research is based on the Research Onion, which Saunders famously proposed in 2009 (Mayer, 2015).

Research Philosophy

This study is based on the philosophy of pragmatism. This is because pragmatism takes both the qualitative and quantitative data into consideration to arrive at its outcomes (Morgan, 2013). The main advantage that comes with this approach is the ability to analyze the data through a number of different ways. This study has, therefore, acquired both the observable and quantifiable findings to study the impact of microcredit finance on environmental sustainability.

Research Approach

In an inductive approach, a researcher gathers the data, identifies the patterns, and formulates a theory based on these identified patterns. On the other hand, a researcher chooses a deductive approach when a hypothesis is to be devised from the theories that already exist. This study has employed the deductive approach, primarily because it focuses on a specific sector, that is, microcredit finance. The notion of an inductive approach was disregarded for this study because solving a general problem is not the primary intention.

Research Methods

The qualitative and quantitative research methods are defined as the two fundamental methods that a research study may employ. In a quantitative research method, facts and patterns are interpreted and deduced by making use of the numerical data only. In a qualitative research method, motivations, reasons, and opinions are comprehensively interpreted and the use of any numerical data is disregarded. As mentioned before, this study has incorporated both the qualitative and quantitative research method to demonstrate the end result. The quantitative research method has been employed to analyze the numerical data, whereas, the qualitative research method has been utilized to conduct the interviews of the employees working in the sector of microcredit finance.

Data Collection Methods

There are two main methods for data collection, that is, primary and secondary. Primary data collection is referred to as the collection of fresh data for solving a particular problem, for instance, data gathered through a newly designed questionnaire. Whereas, secondary data collection is defined as the collection of data that was previously acquired and interpreted by some other scholar for solving a different, but related, problem, for instance, data collected through books, journals, websites etc. This study has made use of the secondary data. This secondary data was consulted to answer the research questions in a manner that is cost-effective.

Reliability and Validity of the Research

This study maintains its reliability by analyzing data from different parts of the world to eliminate bias. On the other hand, the internal and external validity of the research is preserved by ensuring that the outcomes of the study are only affected if the independent variable is manipulated.

Ethical Considerations

The research has complied with the aspect of confidentiality by referencing and safeguarding the data it has obtained from the secondary resources. Lastly, the study has also catered the ethical consideration of autonomy by utilizing only those secondary resources, which has been allowed by the author for citation purposes. The data obtained as a result of this has been used for academic purposes only.

RESULTS

The following figure illustrates how the potential climatic change influences the MFIs and their targets

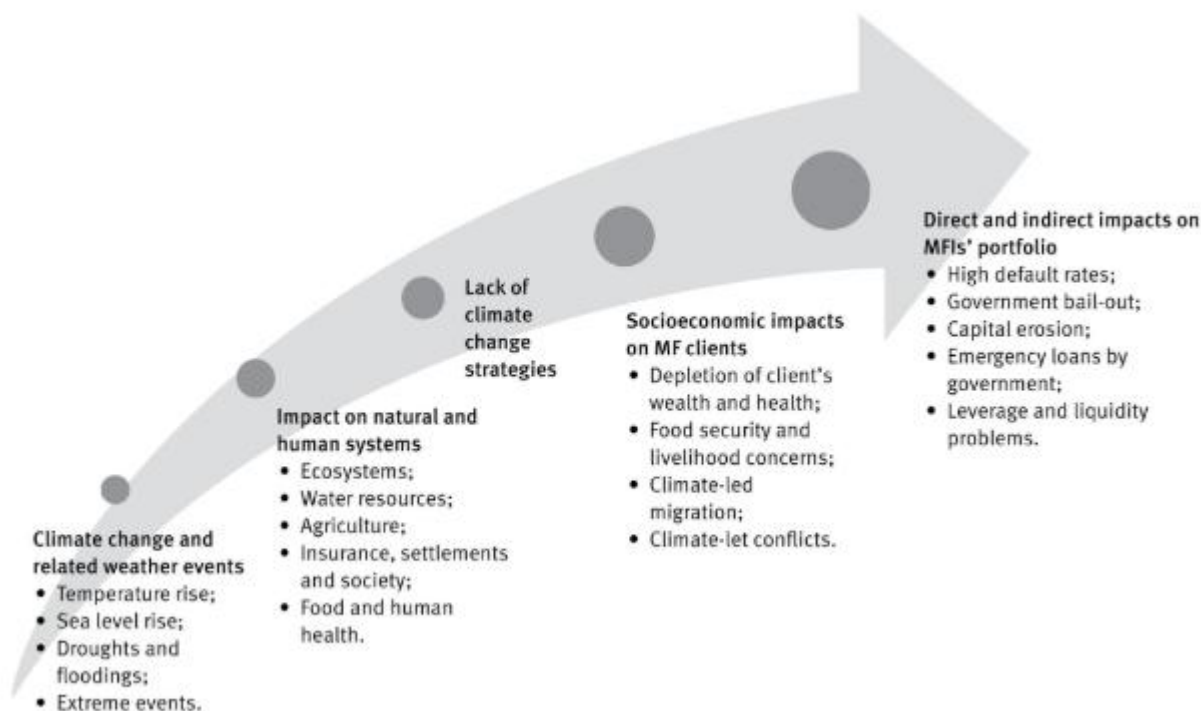


Figure 2 The Impact of climatic change on MFIs

The figure above intelligibly highlights the impact of climatic change on the MFIs. The MFIs are significantly impacted by leverage and liquidity problems, emergency loans, capital erosion, government bail-out and high default rates which impact the portfolios of MFIs both directly and indirectly. The clients of MFIs also experience socioeconomic impacts through climate-led conflicts, climate-led migration, livelihoods concern and food security, and depletion of the MIF clients' health and wealth. In addition to this, the climate change impacts the human and natural systems, specifically, the food and human health, society, settlements, and insurance, agriculture, water resources, and ecosystems. Besides this, the weather events such as flooding and droughts, the rise of sea level, the rise in temperature, and extreme weather events are some of the fundamental examples of climate changes. However, the lack of climate change strategies does not support the cause either.

DISCUSSION

Keeping the viewpoint of microfinance into consideration, high rainfall variability, extreme weather events, flooding, long-lasting droughts, sea level are expected to damage crucial assets, such as health, livestock, crop yields, homes, and micro-businesses of a number of

microfinance clients. As the temperature of the earth rises, the human and natural systems will experience severe climate changes, predominantly due to an increase in recurrence and intensity of floods and droughts. Some of these climate systems include societal settlements, human health, coastal zones, forests, crop production, and water resources. Although these systems have different vulnerability levels, almost all of them are susceptible to climatic variations and may suffer from irrevocable damages.

Due to the proposition that the microfinance clients rely extensively on natural ecosystems, they lack the ability to mitigate their vulnerability towards climate changes. Hence, a declination in the quantity and quality of water sources vector-borne diseases would impact the wealth and health of the MFI clients in both the urban and rural areas. In addition to this, natural resources in areas that have the tendency to suffer from extreme climatic conditions may compel the MFI clients to migrate.

Therefore, if no adaptation strategy is adopted in a timely manner, the climate may play an unwanted role in affecting the portfolio of MFI clients, and of the government. As it would become difficult for the MFI clients to fulfill their financial obligations due to the intense and repeated climatic shocks, the default rates will rise, causing MFIs to suffer from liquidity, undermining the financial sustainability as a consequence.

The amplification in incidences of natural disasters and heavy rains may impact the physical infrastructure in a negative manner, for instance, the information systems, records, offices that are owned by MFIs along with the assets of clients, for example, equipment and home of those in particular who live in unusual settlements located at or near sewage/dump canals or unstable hillsides. Due to the lack of adaptive measures, the climate extremes have the tendency to become more intense and extreme in the long-term. If the perspective of microfinance is taken into consideration, the result may include a significant number of MFI borrowers.

Two of the most important areas that need to be taken into consideration with regards to the vulnerabilities due to climatic conditions are the probable influences of insurance mechanisms and savings withdrawals on the financial performance of MFIs subsequent to the climatic shocks. This is because the clients intentionally opt for micro-savings as an option to safeguard themselves against the troubling weather conditions, for instance, smoothing the livelihood needs of consumption prior to an event of extreme weather condition. The MFIs which utilize a portion of gathered deposits to expand their credit outreach may suffer issues pertaining to liquidity. Similarly, the covariate risks, emerging especially from farming activities may prove to be quite expensive for the micro-insurers to handle, thereby giving rise to insurance rationing for the individuals who need to be ensured. However, the evaluation of the vulnerability of MFIs to the climatic conditions should be carried out with caution. Moreover, keeping in view the micro-insurance, besides the crop insurance schemes of the government, the sector still exhibits an embryonic terrain for a majority of the MFIs.

To overcome the issues identified above, the microcredit institutions should provide loans to the projects that foster environmental protection. These projects should be intelligibly designed to enforce the adaptation/mitigation activities such as water storage, forestry, renewable energy etc. at below average interest rates to the needy farmers. In addition to this, smallholder farmers should be provided with a low-cost insurance plan to enable them to meet the basic needs of their livelihood while eliminating any potential losses. In addition to this, environmental training should be given to communicate the best practices for farming

and agricultural production, for instance, the utilization of organic fertilizers and strategies to restrict the degradation of soil. These initiatives have the potential to foster greater environmental sustainability among the MFIs clients, while also constituting a cheap and additional tool with respect to climate change actions that the MFIs can offer.

CONCLUSION

In conclusion, the adoption of productive microcredit practices, complemented by proximity finance, will become a viable instrument to promote mitigation and adaptation strategies. Through an establishment of trustful and productive relationships with the clients, and by performing supervision and monitoring on a consistent basis during the entire course of the loan, the MFIs, through their credit agents will assume a strategic position. This position will allow the MFIs to share the best practices while leveraging information to impact the behavior of customers towards the adoption of particular mitigation and adaptation initiatives. The MFIs will, therefore, have a crucial role to play in the promotion of environmental sustainability especially because of their capacity to reach out to the poorest of the people.

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