CHAPTER 2
LITERATURE REVIEW

2.1 Theoretical Literature:

2.1.1 Definition of Microfinance:
Asian Development Bank (ADB) defines microfinance as “the provision of a broad range of financial services such as deposits, loans, money transfers, and insurance to small enterprise and households.” [5]

CGAP\(^3\) (2003) defines microfinance as “a credit methodology that employs effective collateral substitutes to deliver and recover short-term working capital loans to micro entrepreneurs.” [6]

2.1.2 Approaches of Microfinance:
The concept of microfinance has influenced by two major schools; the Institutional school and the Welfarist school. Institutional school focuses on developing a financially sustainable institution that is expected to serve the poor. The basic foundation of such an approach is to provide financial services to poor at an affordable cost. Numerous large-scale, profit seeking microfinance organisations come under this approach that provides high quality financial services to the poor. This approach is expressed in nearly all literatures published by World Bank, CGAP, USAID, ACCION\(^4\) International and Ohio State Universities Rural Finance program.

Believers of Institutionalist approach are opposed to the idea of dependency on subsidies because earlier attempts on poverty alleviation through subsidies by various development agencies, NGOs and the governments of developing countries failed. The reason behind the failure included; high cost of transactions, lack of assets for the poor households, institutions lacking in saving mobilization and high level of corruption. The impact was very insignificant and that leads to dried up donor fund.

According to Institutionalist, a significant impact on poverty can be achieved only if MFIs are financially self-sufficient and independent from any subsidised funding from donor or government.

Examples of MFIs operating under this approach are Bank Rakyat Indonesia, SKS

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\(^{3}\) Housed at the World Bank, Consultative Group to Assist the Poor (CGAP) provides market intelligence, promotes standards, develops innovative solutions and offers advisory services to governments, microfinance providers, donors, and investors

\(^{4}\) ACCION International is a private, nonprofit organization providing “micro” loans, business training and other financial services to poor men and women who start their own businesses
Microfinance, and Uganda Microfinance Union etc. On the other hand, Welfarist focuses on immediate improvement of the economic safety for the poor. They focus on providing financial services to the poorest of the poor at subsidised rate of interest. The MFIs that fall under this approach are heavily reliant on the government subsidies and grants as well as donor subsidies. Saving mobilisation is not a part of the lending process in this approach. Though they understand that the long term sustainability of MFI is very important, however, they do not agree that avoiding donor subsidies completely will be required to achieve that state. Examples of MFIs operating under this approach are Grameen Bank Bangladesh, FINCA in Latin America etc.

2.1.3 Microfinance delivery models:
Microfinance services are provided with different methods in India and elsewhere [7], [8]. Delivery models can be divided into two broad categories.
   I) Group models
   II) Individual models
Group models can be divided into three categories.
   I) Self-help Groups (SHG)- Bank-linkage
   II) The Grameen model
   III) Joint Liability Groups (JLG)
The individual model corresponds to individual banking.
As of March 2009, over 1.716 million Self-help Groups (SHGs) active in India represented over 54 million microfinance clients, while the MFI model, growing at a staggering 60 percent per annum, served another 22.6 million.

Self-help Group-Bank-linkage:
The SHG model, in the form of the SHG-Bank-linkage program (SBPL) was initiated in the early 1990s by the National Bank for Agriculture and Rural Development (NABARD). SHG linkage is based on the principle of ‘savings first’. These savings are not only a way of creating group solidarity and, testing people’s willingness regularly to keep some cash aside, they also create a loan fund from which the group can borrow. Such groups normally comprise of 15-20 women. Peer-pressure replaces traditional guarantees, such as references and assets or collateral. The existing network of government banks binds the SHGs to credit channels, and having demonstrated the financial success of this endeavor. The private banks are also increasingly venturing into this field.
To obtain loans from banks, the SHG members must first establish their credit-worthiness, by maintaining scrupulous records of savings and mutual lending, usually for a period of six months. Further, the mechanism guards against defaults on loan payments, as no new member may receive a fresh loan until the previous arrears are cleared. Another repayment incentive is the ability to access larger repeat loans upon on-time repayment. The loans offered to the SHGs are usually a multiple (2-4 times) of their savings, and are granted to the SHG as a whole, which then decides autonomously on the disbursement among the members. It is argued that the meetings reinforce a culture of discipline, routine payments and staff accountability, while others counter the claim arguing that daily or weekly congregation compounds the workload of the borrowers and at times discourages new entrants. There is also the assertion that the ‘group leader’ may wield undue control over loans issued to the other members.

While ideally, once members have managed to build up their assets, they should be able to operate individual accounts; this is not always the case. Critics of the SHG movement argue that poor people, given the choice, prefer an individual service and the simplicity of a reliable retailer managing the bookkeeping, rather than taking on the added responsibilities and risks of running their own mini-financial institution (SHG) [9].

Among the other drawbacks, SHGs entail a process of mutual self-selection, which may lead to the exclusion of the economically weakest members in a community. Further, it is noted that repayment does not depend solely on peer pressure; rather it also requires management, transparency and accountability, for which apparatus of training and supervision should be in place.

**The Grameen model:**

The Grameen model was initiated by Mohd. Yunus in Bangladesh. With this model, the institution lends to affinity groups of 5 individuals. These groups are very standardized in structure. They organize weekly meetings and saving is mandatory for members. Credit is not given to all members simultaneously, but all hope to have their turn and all stand for each other’s obligations. The groups are created under supervision of the MFI, according to a well-defined structure to facilitate access to microfinance services [7], [10].

**Join Liability Groups or Individual Liability:**

MFIs serve as ‘lending intermediaries’ between investors (banks/private equity firms) and the microcredit borrowers. In India, they exist either as NGOs or as Non-Banking Finance
Companies (NBFCs). The Joint Liability Group method was made famous by Grameen Bank in Bangladesh and has been replicated by MFIs across the world.

Under the JLG model, MFIs organize members into groups with the understanding that even though members will be given individual loans, the group as a whole will be liable for repayment. As in the case of the SHGs, social pressure ensures that repayment levels remains over 98 per cent in India. The size of the group is much smaller than an SHG with each group comprising of 5 women. Certain MFIs also lend to individuals with individual liability. In order to qualify for a bigger individual loan, members must have demonstrated good credit history over one to two years.

The advantage of the JLG model over the SHG model lies in the former’s ability to scale. It is highly replicable and allows MFIs to rapidly expand their client base and become more profitable. In fact, 30 percent of the 70 million microfinance clients in India are members of the top 10 MFIs [11]. Critics of the MFI/JLG model argue that high growth rate experienced by MFIs in India has translated into a mission drift with the focus shifting from client satisfaction to profit making.

2.1.4 Performance evaluation models for MFIs:

During the 1990s, there was a growing interest on the part of financial institutions in microfinance. As a result, several performance evaluation indicators emerged in relation to different areas of management considered as the most important in evaluating performance of MFIs. The results achieved were diverse. In actuality, some models of evaluation were accepted in general and have been currently adopted by institutions to monitor and evaluate the business. Each of these models focused on specific profiles of analysis. These models contribute to raising the level of informative transparency with regard to the process of credit management of MFIs.

**PEARLS Model (1990) from the World Council of Credit Unions:**

P- Protection  
E- Effective Financial Structure  
A- Asset Quality  
R- Rate of Return and Costs  
L- Liquidity  
S- Sign of Growth  

PEARLS model consists of 45 indicators that are used for monitoring the performance of a specific type of microfinance institution: credit unions.
**CAMEL Model (1993) from ACCION International:**

C- Capital adequacy  
A- Asset quality  
M- Management  
E- Earnings  
L- Liquidity  

It contains 21 indicators that are currently utilised by North American banks to evaluate performance, focussing principally on the financial aspects of management.

**GIRAFE model (1999) from Planet Rating⁵:**

G- Government and decision making  
I- Information and management tool  
R- Risk analysis and control  
A- Activities and loan portfolio  
F- Financing: Equity and liability  
E- Efficiency and profitability  

It is an instrument of qualitative and quantitative evaluation of performance and of the risks borne by the MFI. The qualitative analysis focuses on the success of the strategy verifying the quality of management processes and the efficiency of the information system with the objective of guaranteeing the internal control functions.

**Microfinance Information Exchange model:** Through its publication- Micro Banking Bulletin that is one of the principal outputs of micro banking standards project funded by CGAP, it collects financial and portfolio data provided by MFIs, primarily to help MFI managers and board members to understand their performance vis-a-vis other MFIs. Secondary objective includes establishing industry performance standards and enhance transparency of financial reporting of MFIs worldwide. There are 8 broad parameters included in this model. They are as under.

1. Institutional characteristics  
2. Financing structure  
3. Outreach indicators  
4. Macroeconomic indicators

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⁵ Planet Rating, headquartered in Paris, France, is a specialized microfinance rating agency offering evaluation and rating services to microfinance institutions (MFIs), using the GIRAFE and the Social Performance methodologies. Planet Rating was created in 1999 as a department of the international NGO PlaNet Finance in order to accompany the development of microfinance services and bring the transparency that was needed to harness the growth of the sector.
5. Overall financial performance
6. Revenues and expenses
7. Efficiency
8. Risk and liquidity

2.1.5 MIX model for performance evaluation:
MIX is a non-profit organization incorporated in June 2002, with headquarters in Washington, DC, and regional offices in Peru, Senegal, India and Indonesia. MIX was founded by CGAP (Consultative Group to Assist the Poor), and is sponsored by City Foundation, Deutsche Bank Americas Foundation, IFAD and Bill & Melinda Gates Foundation.
MIX provides detailed financial and social performance information from MFIs, as well as business information from market facilitators and leading donor organizations and investors in microfinance. To address the issue of diversity in operating environment of MFIs, while comparing the financial and portfolio data, it has adopted a peer group framework, where financial performance of MFIs are compared among peer group members on 8 broad parameters. Each of these parameters has some performance indicators. The details of these indicators are as under.

1. Institutional characteristics: The details of the indicators under this head are as under.
   - Number of MFIs: Sample size of group
   - Age: Years functioning as an MFI
   - Number of offices
   - Number of personnel
   - Total asset: Total assets, adjusted for inflation and standardized provisioning for loan impairment and write-offs

2. Financing Structure: The details of the indicators under this head are as under.
   - Capital/Asset Ratio: Adjusted Total Equity/Adjusted Total Assets
   - Commercial Funding Liabilities ratio: (Voluntary and Time Deposits + Borrowings at Commercial Interest Rates) /Adjusted Average Gross Loan Portfolio
   - Debt to Equity: Adjusted Total Liabilities/Adjusted Total Equity
   - Deposits to Loans: Voluntary Deposits/Adjusted Gross Loan Portfolio
   - Deposits to Total Assets: Voluntary Deposits/Adjusted Total Assets
   - Portfolio to Assets: Adjusted Gross Loan Portfolio/Adjusted Total Assets

3. Outreach Indicators: The details of the indicators under this head are as under.
- Number of Active Borrowers: Number of Borrowers with loans outstanding, adjusted for standardized write-offs
- Percent of Women Borrowers: Number of active women borrowers/Adjusted Number of Active Borrowers
- Number of Loans Outstanding: Number of Loans Outstanding, adjusted for standardized write-offs
- Gross Loan Portfolio: Gross Loan Portfolio, adjusted for standardized write-offs
- Average Loan Balance per borrower: Adjusted Gross Loan Portfolio / Adjusted Number of Active borrower
- Average Loan Balance per Borrowers/ GNI per capita: Adjusted Average Loan Balance per Borrower/GNI per Capita
- Average Outstanding Balance/Adjusted Gross Loan Portfolio/Adjusted Number of Loans Outstanding
- Average Outstanding Balance/GNI per Capita: Adjusted Average Outstanding Balance/GNI per Capita
- Number of Voluntary Depositors: Number of Depositors with voluntary deposit and time deposit accounts
- Number of Voluntary Deposit Accounts: Number of Voluntary Deposit and time deposit accounts
- Voluntary Deposits :Total value of Voluntary Deposit and time deposit accounts
- Average Deposit Balance per Depositor: Voluntary Deposits/Number of Voluntary Depositors
- Average Deposit Balance per Depositor/GNI per Capita: Average Deposit Balance per Depositor/GNI per capita
- Average Deposit Account Balance: Voluntary Depositors/Number of Voluntary Deposit Accounts
- Average Deposit Account Balance/GNI per Capita: Average Deposit Account Balance/GNI per capita

4. **Macroeconomic Indicators**: The details of the indicators under this head are as under.
   - GNI per Capita : Total income generated by a country's residents, irrespective of location / Total number of residents
   - GDP Growth Rate: Annual growth in the total output of goods and services occurring
within the territory of a given country

- **Deposit Rate**: Interest rate offered to resident customers for demand, time or savings deposits
- **Inflation Rate**: Annual change in average consumer prices
- **Financial Depth**: Money aggregate including currency, deposits and electronic currency (M3)/GDP

5. **Overall Financial Performance**: The details of the indicators under this head are as under.

- **Return on Assets**: \( \frac{(\text{Adjusted Net Operating Income} - \text{Taxes})}{\text{Adjusted Average Total Assets}} \)
- **Return on Equity**: \( \frac{(\text{Adjusted Net Operating Income} - \text{Taxes})}{\text{Adjusted Average Total Equity}} \)
- **Operational Self-Sufficiency**: \( \frac{\text{Financial Revenue}}{\text{(Financial Expense} + \text{Impairment Losses on Loans} + \text{Operating Expense})} \)
- **Financial Self-Sufficiency**: \( \frac{\text{Adjusted Financial Revenue}}{\text{Adjusted (Financial Expense + Impairment Losses on Loans + Operating Expense)}} \)

6. **Revenue and Expenses**: The details of the indicators under this head are as under.

- **Financial Revenue/Assets**: \( \frac{\text{Adjusted Financial Revenue}}{\text{Adjusted Average Total Assets}} \)
- **Profit Margin**: \( \frac{\text{Adjusted New Operating Income}}{\text{Adjusted Financial Revenue}} \)
- **Yield on Gross Portfolio (nominal)**: \( \frac{\text{Adjusted Financial Revenue from Loan Portfolio}}{\text{Adjusted Average Gross Loan Portfolio}} \)
- **Yield on Gross Portfolio (real)**: \( \frac{\text{(Adjusted Yield on Gross Portfolio (nominal) - Inflation Rate)}}{\text{(1 + Inflation Rate)}} \)
- **Total Expense/Assets**: \( \frac{\text{Adjusted (Financial Expense + Net Loan Loss Provision Expense + Operating Expense)}}{\text{Adjusted Average Total Assets}} \)
- **Financial Expense/Assets**: \( \frac{\text{Adjusted Financial Expense}}{\text{Adjusted Average Total Assets}} \)
- **Provision for Loan Impairment/Assets**: \( \frac{\text{Adjusted Impairment Losses on Loans}}{\text{Adjusted Average Total Assets}} \)
- **Operating Expense/Assets**: \( \frac{\text{Adjusted Operating Expense}}{\text{Adjusted Average Total Assets}} \)
- **Personnel Expense/Assets**: \( \frac{\text{Adjusted Personnel Expense}}{\text{Adjusted Average Total Assets}} \)
Assets

- Administrative Expense/Assets: Adjusted Administrative Expense / Adjusted Average Total Assets
- Adjustment Expense/Assets: (Adjusted New Operating Income - Unadjusted Net Operating Income) / Adjusted Average Total Assets

7. **Efficiency**: The details of the indicators under this head are as under.

- Operating Expense/Loan Portfolio: Adjusted Operating Expense / Adjusted Average Gross Loan Portfolio
- Personnel Expense/Loan Portfolio: Adjusted Personnel Expense / Adjusted Average Gross Loan Portfolio
- Average Salary/GNI per Capita: Adjusted Average Personnel Expense / GNI per Capita
- Cost per Borrower: Adjusted Operating Expense / Adjusted Average Number of Active Borrowers
- Cost per Loan: Adjusted Operating Expense / Adjusted Average Number of Loan
- Borrowers per Staff Member: Adjusted Number of Active Borrowers / Number of Personnel
- Loans per Staff Member: Adjusted Number of Loans Outstanding / Number of Personnel
- Borrowers per Loan Officer: Adjusted Number of Active Borrowers / Number of Loan Officers
- Loans per Loan Officer: Adjusted Number of Loans Outstanding / Number of Loan Officers
- Voluntary Depositors per Staff Member: Number of Voluntary Depositors / Number of Personnel
- Deposit Accounts per Staff Member: Number of Deposit Accounts / Number of Personnel
- Personnel Allocation Ratio: Number of Loan Officers / Number of Personnel

8. **Risk and Liquidity**: The details of the indicators under this head are as under.

- Portfolio at Risk > 30 Days: Outstanding balance, portfolio overdue > 30 days + renegotiated portfolio / Adjusted Gross Loan Portfolio
- Portfolio at Risk > 90 Days: Outstanding balance, portfolio overdue > 90 days +
renegotiated portfolio / Adjusted Gross Loan Portfolio

- Write-Off Ratio: Adjusted value of loans written off / Adjusted Average Gross Loan Portfolio
- Loan Loss Rate: (Adjusted Write-offs - Value of Loans Recovered) / Adjusted Average Gross Loan Portfolio
- Risk Coverage Ratio: Adjusted Impairment Loss Allowance / PAR > 30 Days
- Non-earning Liquid Assets as a % of Total Assets: Adjusted Cash and Banks/Adjusted Total Assets
- Current Ratio: Short Term Assets / Short Term Liabilities

2.1.6 Issues of sustainability

 According to Yeron [12], the two most important objectives for a rural financial institutions to be successful are financial self-sustainability and more outreach to the target rural population. Financial self-sustainability is said to be achieved when the return on equity, net of any subsidy received, equals or exceeds the opportunity cost of funds.

 On the other hand, outreach is assessed on the basis of the type of clientele served and the variety of financial services offered; including the value and number of loans extended, the value and number of saving accounts, the number of branches and sub-branches, percentage of total rural population served, the real annual growth of the rural financial institutions’ assets over recent years and the participation of women clients.

 Sustainability relates to the ability of a program to continuously maintain its activities and services in order to meet its objectives.

 According to Khandelker et al. [13]; the concept of sustainability of microfinance can be divided into four interrelated ideas; namely, financial viability, economic viability, institutional viability and borrower viability. Financial viability relates to the fact that a lending institution should at least equate the cost per unit of currency lent to the price it charges from its borrowers (i.e. the interest rate). Economic viability relates to meeting the economic cost of funds (opportunity cost) used for credit and other operations with the income it generates from its lending activities.

 Institutional viability is related more to the efficient management and decision-making process.

 Borrowers’ viability however, refers to whether the borrowers of the institution have achieved higher flows of income over time and are able to repay back their loans.
2.2 Empirical Literature Review:

The microfinance institutions participation in several developing economies is escalating from time to time. Various studies on different countries on the performance of the MFIs confirm this [14], [15], [16], [17].

For example, in Bangladesh a microfinance institution called Grameen Bank at the end of 2008 reported 6.2 million members, where 95 percent of them are women, with $642 million outstanding loan. In addition, Thailand also has reported impressive outreach through agricultural lending by the Bank for Agriculture and Agricultural Cooperative. In general, numerous MFIs have registered impressive outreach in several developing economies including India, Cambodia, and others.

Nominal interest rates in India range between 12 and 16 percent a year as per IFC Report June 2008 “India: Microfinance and Financial Sector Diagnostic Study”.

The annual effective interest rate paid by the average Indian microfinance borrower is, on average, around 25 percent per annum—not significantly different from the approximately 24 percent per annum usually charged by commercial banks on consumer finance. Strikingly, MFIs charge flat interest rates, whereas SHGs linked to banks charge on a declining balance basis.

An analysis of 83 MFIs by Sa-Dhan in 2006 documented that the return on their gross loan portfolios (GLP) ranged from -2.3 percent to +2.4 percent, depending on an MFI’s organizational form. Cooperative MFIs posted the highest return (+2.4 percent), followed by NBFCs (+0.9 percent) and nonprofit companies (-2.3 percent). MFI cooperatives also achieved the highest return on equity (+6.5 percent), followed by NBFCs (+5 percent) and nonprofit organizations (-18.6 percent).

India lags well behind Bangladeshi microfinance institutions reporting to the MIX, which lead the region in profitability. The financial viability of Indian MFIs is also under pressure, despite yield improvements. Low portfolio yields, combined with poor portfolio quality and rising financial costs, have reduced Indian MFIs surplus even though improvements in collection measures have boosted portfolio yields [18], [19].

Performance evaluation of MFIs, TRIAS training session, Brussels, January 2005 focuses on basics of performance evaluation. The main financial indicators discussed in this session were Portfolio Quality, Efficiency and Productivity, Financial Management / Risk Management and Profitability and Sustainability. A case of PILARH was taken and the above mentioned indicators were studied. It also discussed how to react when the portfolio deteriorates.
In the year 2006, Giovanni Ferro Luzzi and Sylvain Weber [20] in their paper “Measuring the Performance of Microfinance Institution” use factor analysis to construct performance indices based on several possible associations of variables without posing too many a priori restriction. The base variables are thus combined to produce different factors, each one representing a distinct dimension of performance. They then use the individual scores ascribed to each MFI on each factor as the dependent variables of a simultaneous equation model and presents new evidence on the determinants of MFIs performance.

In the year 2006, Yogendra Prasad Acharya, Uma Acharya [21] in their paper “Sustainability of Microfinance Institutions from Small Farmer Perspective: A Case of Nepal” demonstrate that small farmers generally do not think in terms of institutional sustainability when they obtain loans from cooperatives. They define the term ‘sustainability’ in terms of personal benefits. Their frames of reference are more utility-focused and directly connected to their lives and livelihood, the level of benefit, income, and economic survival of the family. In other words, what is sustainability for a banker is not so for the small farmers.

In the year 2007, J. Jordan Pollinger, John Outhwaite and Hector Cordero-Guzman [22] in their paper “The Question of Sustainability for Microfinance Institutions” seek to understand the implications for providers of microfinance in pursuing relationship based financing strategy in the US. They analyzed their lending process, and presented a model for determining the break-even price of a micro credit product. They found that credit is generally offered at a range of subsidized rates to micro entrepreneurs. Such subsidization of credit has implications for the long-term sustainability of institutions serving this market and can help explain why mainstream financial institutions have not directly funded micro enterprises.

In November 2007, Befekadu B. Kereta [23] in his paper “Outreach and Financial Performance Analysis of Microfinance Institutions in Ethiopia” finds that in Ethiopia the industry's outreach rises in the period from 2003 to 2007 on average by 22.9 percent per annum. The paper identified that while MFIs reach the very poor; their reach to the disadvantaged, particularly to women is limited (38.4 Percent). From financial sustainability angle, it finds that MFIs are operationally sustainable measured by return on asset and return on equity. Similarly, the study also finds that MFIs are financial sustainable. Finally, it finds no evidence of trade-off between outreach and financial sustainability.

Robert Cull et al. [17] on the performance of leading MFIs in 49 countries find interesting results. They found that over half of surveyed MFIs are profitable after making adjustment of subsides. They also identified no evidence of trade-off between being profitable and reaching
the poor.

SM Rahman [24], CDF, Dhaka, Bangladesh in his paper “Commercialization of Microfinance in Bangladesh Perspective” suggests that real customer service through commercialization should be the bottom line for moving forward. In a competitive environment, customer satisfaction and commercialization should be the driving force for survival and growth. According to him the microfinance regulation in the country is now underway, which will provide a legal basis and streamline the current and future MFI activities. To reap the benefits of commercialization, the clients should be allowed to exercise their free choices. They should be granted liberty to do their own financial management in order to increase their net worth, while the financial intermediaries will require mandate for providing a wide range of financial operations.

In the case of Indian, there are few studies that are undertaken in relation to MFIs. But, the objectives addressed in these previous studies are different, ensuring the value added of this study.

Vijay Mahajan and G Nagasri, BASIX [19] tried to examine what comes in the way of making Indian MFIs sustainable and what can facilitate this. An attempt has been made in this paper to look at sustainability from multiple dimensions such as demand, mission, legal and regulatory framework, ownership, governance and human resources and financial sustainability.

Piyush Tiwari and S.M. Fahad [25] discuss conceptual framework of a microfinance institution in India. The successes and failures of various microfinance institutions around the world have been evaluated and lessons learnt have been incorporated in a model microfinance institutional mechanism for India. The authors found that the poor repay their loans and are willing to pay for higher interest rates. Secondly, the poor save and hence microfinance institutions should provide both savings and loan facilities. These two findings imply that banking on the poor can be a profitable business. However, attaining financial viability and sustainability is the major institutional challenge.