



# Performance of Selected Microfinance Institutions in Ethiopian: A Balanced Scorecard Approach

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## **Student Declaration**

I declare that the thesis for the MSc. degree in accounting and finance at the University of Addis Ababa, hereby submitted by me, is my original work and have not previously been submitted for a degree at this or any other university, and all references materials contained therein have been duly acknowledged.

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## **Statement of Certification**

This is to certify that the thesis prepared by EyerusalemKebede Refera entitled: „Performance of Selected Microfinance Institutions in Ethiopian: A Balanced scorecard approach“ submitted in partial fulfillments of the requirements for the Degree of Master of Science in Accounting and Finance complies with the rules and regulations of the university and meets the expected standards with respect of originality and quality.

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## **ABSTRACT**

*This study analyze the performance of selected microfinance institutions in Ethiopian using a balanced score card (BSC) performance analysis approach which integrate both financial and nonfinancial metrics. The BSC framework of the study developed using a total of 20 performance indicators which were equally categorized under the 4 BSC perspectives (financial, customer, internal business process and learning and growth). The developed framework applied to purposively selected 8 MFIs operating in Ethiopia which have head office in Addis Ababa and report to Association of Ethiopian Microfinance Institutions (AEMFI) starting from 2007-2012 consecutively.*

*Quantitative research approach adopted and primary data collected using five scale Likert and secondary data obtained from AEMF used. A total of 10 microfinance experts, 110 staffs and 60 clients participated in the study. The analysis is done using descriptive statistics and SPSS version 21 used. The findings of the study shows based on financial performance results, on average the institutions reviewed were sustainable with high relative productivity and low profitability. The average nonfinancial performance was also high, indicating that the studied institutions were highly performing in nonfinancial measures likewise the financial.*

*Beside the performance results the findings of this study confirmed the relationship assumption of BSC perspectives and it shows positive correlation among them. The study concludes comprehensive performance is observed when measured in a collective way. So, Ethiopian MFIs suggested paying attention on the use of BSC as a performance measurement tool and also hub to specified performance indicators that needs enhancement.*

**Key words: - Microfinance, Performance and BSC**

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## **List of Acronyms**

ADCSI	Addis Credit and Saving Institute
AEMFI	Association of Ethiopian Microfinance Institution
AROA	Adjusted Return On in Asset
AROE	Adjusted Return On in Equity
AVFS	Africa Village Financial Service
BPLO	Borrowers per Loan Officers
CGAP	Consultative Group to Assist the Poor
CIS	Clear Institutional Strategy
CP	Customer Perspective
CS	Customer Satisfaction
CSO	Clear Social Objective
DLAP	Duration of Loan Application Processing
ES	Employee Satisfaction
ET	Employee Training
FP	Financial Performance
I	Innovation
IBP	Internal Business Process
IIS	Investment in Information System
LG	Learning and Growth
MFI	Microfinance Institution
MIX	Microfinance Information Exchange
NBE	National Bank of Ethiopia
NFP	Non-Financial Performance

NGO	Nongovernmental Organization
OCSSCO	Oromia Credit and Saving Share Company
OSS	Operational Self Sufficiency
PaR	Portfolio at Risk
PCNC	Percentage Change of Number of Client
PCVS	Percentage Change of Voluntary Saving
PF	Performance Feedback
PWB	Percentage of Women Borrower
R&D	Research and development
RE	Report
ROEL	Ratio of Operating Expense to Loan
ROI	Return on Investment
SEEP	Small Enterprise Education and Promotion Network
SFPI	Specialized Financial and Promotional Institution
SPSS	Statistical Package for the Social Sciences

# CHAPTER ONE

## INTRODUCTION

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*This chapter provides general overview of MFIs and the context in Ethiopia. The need or initiation of the study, objectives, scope and limitations as well as the hypothesis developed in the study is presented to enables readers to understand the background and justifications of the study.*

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### 1. INTRODUCTION

The implementation of Balanced Scorecard (BSC) as a strategic management tool is an area which has had limited research coverage (Tuomela 2005; and Malmi 2001). Especially, in the context of microfinance institution (MFIs) is very scant, both on strategic management and microfinance performance literatures albeit few recent studies have witnessed the importance of BSC in enhancing performance management and evaluation system in MFIs (Kipsha 2013b; Nanayakkara & Iselin 2012; Al-Haidi 2009).

Few of the pioneering works that aimed at introducing BSC in MFIs underscored that the dual and sometimes appeared conflicting, strategic goals in MFIs: sustainability and outreach are not well addressed in the current performance management and evaluation architecture of the sector. They argued that the BSC approach which intends to create a link between performance measure, performance indicators and institutional strategy is of a capacity to accommodate the multiple financial and nonfinancial performance measures in microfinance to be viewed in their respective contributions to organizational strategies. The purpose of this study is twofold in one side to develop a balanced Scorecard approach performance evaluation framework to MFIs and on the other to evaluate the performance of selected Ethiopian MFIs using the developed BSC framework.

The first objective is achieved through review of BSC and MF performance literatures. First the overall strategic objective of MFIs and existing performance evaluation techniques and measures are identified. Then, a BSC framework is developed through the review of BSC literatures, both general and specific to MFIs. Finally, 20 performance indicators, including those available in annual reports of Ethiopian MFIs and newly introduced in the current study, are categorized under the four pillars of BSC model in a ways that they can be linked with microfinance strategic performance indicators: sustainability and profitability, outreach depth and breadth; efficiency and effectiveness; and portfolio quality.

Performance evaluation of 8 selected MFIs in Ethiopia conducted using the proposed framework, which guided the type of data to be gathered from annual reports, clients, employees and managers of respective institutions, and also experts from national bank of Ethiopia (NBE) MF supervision department and association of Ethiopian microfinance institutions (AEMFI) served as a trial of the framework. To facilitate aggregation of financial and non-financial performance indicators under each of the BSC perspectives a series of descriptive statistics models were developed and employed in the study.

The result of the study showed the applicability of BSC to evaluate overall performance of MFIs, and shades light on both favorable and unfavorable measures of microfinance performance with respect to helping to realize the vision of MFIs in Ethiopia. As an Exploratory study, it also identified potential research areas for further researches.

## **1.1 OVERVIEW OF MICROFINANCE**

The idea of microfinance is well established, rooted in rich histories that span the globe. Savings and credit groups date back many centuries to the Susu tradition in Ghana, the Chit

funds of India, and the Tandas associations in Mexico and Iqqub<sup>1</sup> in Ethiopia. The rise of modern day microfinance is primarily credited to Bangladesh's Dr. Mohammad Yunus (Atikus 2014). Yunus concluded that one of the major causes of poverty was the inability of the poor to get any access to institutional credit (Ledgerwood 1998).

Yunus devised an experiment in which he would lend 42 rural women a \$27 interest-free loan and his experiment was so successful that he replicated the model in several other villages, which ultimately led to his founding of Grameen Bank in 1983. Grameen Bank pioneered some of modern microfinance's early foundational principles: group-based lending, gender-focused outreach, uncollateralized product offerings, rural presence, and social development-minded missions (Atikus 2014).

As widespread awareness and recognition of Yunus' work grew, the practice of modern microfinance spread to all corners of the world. At the onset of this wave, most MFIs were run as non-profits, funded through donations and grants, and purported strong social missions, which were aimed at alleviating poverty and aiding the poor through a combination of financial and non-financial social services. During the 1990s, the industry transitioned to providing only financial services, and many for-profit MFIs entered the field and the industry grew and matured significantly during this period (Atikus 2014). Currently as per Christian (2014) there are more than 10,000 MFIs globally and they comprise a wide range of institutions, from credit unions and cooperatives to non-government organizations (NGOs), government agencies, private companies and commercial banks.

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<sup>1</sup> Iqqub is an informal financial system in Ethiopia in which people save fixed amount of money for a fixed period of time and have the money in rotating base.

## 1.2 MICROFINANCE IN ETHIOPIA

Even if formal financial sector in Ethiopia have been expanding in their service and out reaches the need for financial service among the majority of the poor both in urban and rural areas remained a challenging due to both supply and demand side problems to financial inclusion. From the supply side lack of formal and semi-formal financial institutions with product and service suiting the needs of the poor, geographical concentration of financial institutions in urban and semi urban areas are among others; whereas from the demand side noncompliance with preconditions to accesses financial service and financial illiteracy are the common causes for low financial accesses among the poor in Ethiopia and other least developing countries.

Therefore, by understanding this serious problem many countries have been trying to use various approach to resolve lack of access to financial service in their country. Of which the microfinance approach has been registering satisfactory result in reaching the poor with financial services. In Ethiopia microfinance service were introduced after the demise of the Derg<sup>2</sup> regime following the policy of economic liberalization. Microfinance is taken as a shift from government and NGO subsidized credit programmes to financial service run by specialized financial institutions (Degefa 2009). Sebstad (2003) state the establishment of sustainable MFIs serving large numbers of poor people is a key component of Ethiopia's development strategy.

MFIs in Ethiopia governed by NBE and AEMFI facilitate their activities and issue consolidated information. The first regulatory frame work (proclamation NO. 40/1996) were developed and put in place in 1996 and amended in different years to meet timely needs. As

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<sup>2</sup>Derg, stands for military officers who govern Ethiopia between 1974 – 1991.

per micro-financing business proclamation No. 626 /2009 the purpose and activity of MFIs in Ethiopia are to collect deposits and extend credit to rural and urban farmers and people engaged in other similar activities as well as micro and small scale rural and urban entrepreneurs.

As of Jan 2014 there are 31 licensed MFIs operating in Ethiopia towards resolving the credit access problem of the poor by targeting different groups of the society most of them focused on unemployed youth and women; Legally registered Cooperatives; Community-based organizations such as „Iddirs“<sup>3</sup>; New business start-ups; Individual borrowers; Groups; Urban and rural households. This 31 MFIs based on age grouped as new, young and mature. The new MFIs are that operate less than or equal to 4 years, the young group includes MFIs operates between and equal to 5 and 8 years and the matured group contains that operate greater than 8 years. Likewise based on size MFIs with less than or equal to 15,000 active borrowers called small, MFIs with 15,001 - 50,000 grouped under medium and MFIs with more than 50,000 active borrowers called large. Loan portfolio also the other base to categorize them and MFIs with gross loan portfolio less than or equal to 10 million birr; between 10 million and 50 million birr and greater than 50 million birr classified as small, medium and large respectively (Wolday & Anteneh 2013).

Ethiopian microfinance sector is characterized by its rapid growth, an aggressive drive to achieve scale, a broad geographic coverage, a dominance of government backed MFIs, an emphasis on rural households, the promotion of both credit and savings products, a strong focus on sustainability and by the fact that the sector is Ethiopian owned and driven (Ebisa et al. 2013).

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<sup>3</sup>Iddir is informal financial system in Ethiopian in which peoples help each other financially at the time of death.

### **1.3 THE PROBLEM STATEMENT**

The role of MFIs for the poor and also for the country as a whole is presumable especially for countries like Ethiopia. Nanayakkara and Iselin (2012) noted that for Africa to move forward with economic development and poverty alleviation, it is essential that it progresses swiftly with the integration and transformation of its microfinance industry. Out of those countries that accept this thought Ethiopia is the one and that is why the issue of MFIs incorporated as one of the developmental tools.

In order to achieve its objective any institution must first alive well or achieve a good performance. The issue of performance in case of MFIs is not straightforward since they are quite different from other financial organizations such as banks. For example, financial performance measures such as profitability, return on investment, and share price do not indicate the overall performance of MFIs; rather it mainly evaluates their financial performance.

Although there is no standard definition for performance in relation to MFIs in the literature, emerging studies implied various aspects of MFIs to reconsider important indicators of performance so as to show the extent these institutions optimally balance business and development objectives. To continue as viable business MFIs should be sustainable in that it must maintain a business model that enable to cover all costs of operation and even to make reasonable profit to suitably stay in the market, conflicts with the development mandate of MFIs calls for increasing outreach effort to address the underserved and marginalized segment of the community which usually exorbitantly costly to do. Hence, the existing dilemma in evaluating microfinance performance is balancing sustainability and outreach.

Traditional measures of performance which pay a great deal on quantitative measures unduly depends on financial parameters such as profitability, liquidity, solvency has been losing their popularity in performance management literatures for the fact they ignored non-financial performance measures. According to Anthony & Govindarajan (2007) a well-designed performance measurement system ensures that the key success factors of strategy form the basis of the organizational measurement and reward systems.

In common sense performance is meeting a goal or objective so, since MFIs are not basically intended to generate profit to shareholders measuring their performance using only financial aspects of the institutions have a paradox issue. Financial performance measurement also lacks predictive ability to explain future performance as well as providing little information of the causes and solution to problems facing organizations (Brancato 1995).

The importance of non-financial and multiple measures of performance had gained increasing popularity following the innovative of Balanced Scorecard (BSC) approach in performance management literatures. Nonetheless, unlike the manufacturing industries, service industries did not go deep in using BSC as a performance measurement tool though it is equally important to all (Simon 2013) albeit the potential of BSC to better reflect comprehensive performance in a ways that the management and other stakeholders can be at ease in judging the balance between conflicting commercial and development goals. The use of BSC has high potential in the evaluation of performance of MFIs (Kipesha 2013b).

BSC is a comprehensive approach to analyze overall performance of an organization. Not just financial performance which only provides information about how well the organization did prior to the assessment, but the BSC approach added three additional dimensions with

respect to customer, internal business process and learning and growth to the traditional performance measures which could reflect the overall performance of an organization relevant to its strategic goal and mission. Few of existing literature on microfinance performance (Kipsha 2013b; Nanayakkara & Iselin 2012; Al-Haidi 2009; Mustafa & Atta 2013; Atarera & Ototoke 2009) argued that both financial and non-financial performance perspectives are important for MFIs.

Financial performance measures are important to evaluate if an MFI is to survive; whereas, non-financial performance measures enable to see whether the MFIs well served the community as intended. Though microfinance is among the youngest industry in Ethiopia and other developing countries it have gained increasing policy makers and researchers attention for the fact that the microfinance revolution has been resulting significant socio economic change across the world. With respect to Ethiopian MFIs performance there are surges of studies conducted (Arega 2007; Befekadu 2007; Alemayehu 2008; Letenah 2009; Yitay 2011; Bayeh 2012; and Abate et al. 2013) But, so far as the review of literature for the current study concerned, there was no study that employed BSC approach in evaluating the performance of Ethiopia MFIs. The problem is that most performance evaluation tools focus only on financial perspective; rather, they do not pay attention to other perspectives.

Different studies conducted in different countries to analyze the performances of MFIs using BSC and they can show a comprehensive performance (Nanayakkara and Iselin 2012; Kipsha 2013b; Al-Haidi 2009). The dearth of BSC literature in MFIs is not typical to Ethiopia; therefore the current study is believed to contribute in inculcating the concept of BSC to MFIs performance literature.

## **1.4 OBJECTIVES OF THE STUDY**

Any study is conducted with one or more objective to achieve, that may be to solve a problem; to identify unknown facts; to explain realities; to examine effects or causes or even to predict situations. So out of different initiations this study has the following general and specific objectives.

### **1.4.1 GENERAL OBJECTIVE**

The main objective of this study is to develop a balanced scorecard approach performance evaluation framework to be implemented in Ethiopian MFIs and to evaluate the performance of selected Ethiopian MFIs using the developed BSC framework.

### **1.4.2 SPECIFIC OBJECTIVES**

This study is conducted with the following specific objectives:-

- I. To develop and apply a BSC performance evaluation framework for Ethiopian MFIs.
- II. To test the applicability of BSC through the fulfillments of basic BSC assumptions.
- III. To analyze the financial performance of the studied MFIs in Ethiopia.
- IV. To analyze customer related performance of the studied MFIs in Ethiopia.
- V. To analyze internal business process performance of the studied MFIs in Ethiopia.
- VI. To analyze learning and growth related performance of the studied MFIs in Ethiopia.

## **1.5 HYPOTHESES**

In order to test the applicability of BSC in case of MFIs, the fulfillments of basic BSC assumptions are considered and the following hypotheses are developed.

H1: There is positive correlation between learning and growth (LG) and internal business process (IBP).

H2: There is positive correlation between internal business process (IBP) and Customer perspective (CP).

H3: There is positive correlation between Customer perspective (CP) and financial performance (FP).

H4: There is positive correlation between financial performance (FP) and non-financial performance (NFP).

## **1.6 SIGNIFICANCE OF THE STUDY**

So far, there appeared no attempt to apply BSC as a performance evaluation tool for MFIs in Ethiopia this study is the first to provide a comprehensive performance evaluation approach and it fills the gap in this arena. It can be used as a stepping stone for MFIs to improve their performance measurement tools with all the necessary modification. Beside it provides new outline to National Bank of Ethiopia microfinance supervision department and Association of Ethiopian Microfinance Institutions (AEMFI) in order to help MFIs in their performance measurement and performance reporting contents.

On the other side it demonstrates the studied MFIs in which perspective they are doing great and in which perspective additional effort is needed. It also creates a chance to stakeholders to have better understanding of institution performance from different perspectives. As well it drops additional insight to the existing literature and it can be utilized by other researchers as a standing point.

## **1.7 METHODOLOGY**

The study conducted by adopting quantitative research approach and both primary and secondary source of data used. The primary data collected from the experts of NBE MFsupervision department and AEMFI. And the other primary data sources were randomly selected staffs and clients of the studied MFIs. Structured questioner that was prepared based

on Likert five scale methods used and the secondary data obtained from the annual report of AEMFI for the year 2007-2012.

The studied institutions are purposively selected 8 MFIs based on their head office accessibility or availability in Addis Ababa and submit annual reports to AEMFI for the studied period. The method of data analysis is done using descriptive models developed for this study that comprises both financial and non-financial perspectives. And finally the findings and discussion presented together and necessary research report standard followed. The details of the methodological aspects discussed in chapter three.

## **1.8 SCOPE OF THE STUDY**

The scope of this study is limited to formulating a balanced scorecard framework for Ethiopian MFIs and applying the developed model to analyze selected MFIs performance. In addition this study is limited to showing the performance of the studied microfinance institution in general way rather than individual institution level.

## **1.9 LIMITATIONS OF THE STUDY**

At the time of conducting this study the researcher faces some constraints and out of them the major one and the way out is as follows. Firstly since, this study is new in the nature of adopting BSC there were no previous studies in case of Ethiopia but the available studies on the case of other countries and theories used in depth.

Secondly in view of the fact that this study try to comprises financial and non-financial perspectives together, when benchmarks formulated to translate financial ratios to Likert Five scale for most variables standards which is framed by NBE used. But, for the four variables namely: percentage change of number of clients(PCNC), percentage change of voluntary

saving (PCVS), percentage of women borrowers (PWB), and borrowers per loan officers (BPLO) there was no stated scale and experts opinion used to set the scale so, in a little manner those variables may seem subjected to subjectivity. Nevertheless, the opinions of the experts were supplemented each other and also since these experts are independent from the studied MFIs it is rational to take the stated scales.

## **1.10 ORGANIZATION OF THE STUDY**

This study is organized in five chapters. The content of chapter one is as presented above and chapter two contains a review of both theoretical reviews and empirical evidence on the studied matter. The research design and methodology are presented in Chapter three. Chapter four presents results and discussion with the help of the developed descriptive statistical model. Lastly chapter five presents conclusions, recommendations, and future research areas also indicated. In addition this study report has all the necessary contents of standard research report.

## **CHAPTER TWO**

### **REVIEWS OF RELATED LITERATURES**

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*This chapter aimed at providing a theoretical overview and empirical evidences on performance evaluation of MFIs. Studies from different countries, specifically from Ethiopia and also studies apply BSC to analyze the performance of MFIs reviewed in convenient way. The first part presents theoretical review, then followed by empirical reviews and finally informs the knowledge gap.*

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#### **2.1 THEORETICAL LITERATURE REVIEWS**

In this sub part of the literature theories that scholars articulate in relation to microfinance, microfinance models, performance and balanced scorecard approach are discussed.

##### **2.1.1 MICROFINANCE**

The definition of Microfinance anticipated by different scholars and organizations are slightly different from one another. However, the core concepts of the explanation are similar. Given that the terms microfinance and microcredit are often used interchangeably, it is important to define each term separately and thereby see what they cover. Microcredit is one of the financial services namely the loans which include the act of providing loans of small amounts to the poor and other borrowers that have been ignored by commercial banks whereas microfinance is the practice of providing a variety of financial services that target low-income and poor clients. So, microcredit is just one type of service under microfinance.

Robinson (2001) define microfinance as all types of financial intermediation services (savings, credit, funds transfer, insurance, pension remittances, etc) offered to low-income

households and enterprises in both urban and rural areas, including employees in the public and private sectors and those who are self-employed.

Churchill & Frankiewicz (2006) articulate microfinance as commonly associated with small, working capital loans that are invested in microenterprises or income-generating activities. Hossain & Knight (2008) also defined microfinance as the supply of loans, savings, and other basic financial services to the poor and they noted that microcredit, a central theme of microfinance, is broadly recognized as the practice of offering small, collateral-free loans to members of cooperatives who otherwise would not have access to the capital necessary to begin small businesses.

Dejene (1998) also defined Microfinance Institutions (MFIs) in terms of the following characteristics: targeting the poor (especially the poor women); promoting small businesses; building capacity of the poor; extending small loans without collaterals; combining credit with savings; and charging commercial interest rates and also they are often innovative and flexible in their design and implementation.

In a nut shell from all the above definitions, it is possible to conclude MF is financial service centered on the poor and the typical microfinance clients are low-income employed persons or house hold based entrepreneurs, those do not have access to formal financial institutions.

### **2.1.2 MICROFINANCE MODELS**

Different models of MF service provision have been implemented. Out of that according to the design of Hazeltine & Bull (2003) some of the common models and lending approaches are as described below.

### **2.1.2.1 SOLIDARITY GROUP**

The solidarity group model is also called “peer lending group” and normally consists of four to five individuals who group together to borrow a loan in solidarity. The members are self-selected, based on their reputation and relationship to each other. It is the responsibility of the entire group that every payment is made on time according to a predefined repayment schedule. This also implies that the whole group suffers possible consequences in case they fail to pay back the loan. After a successful repayment of the loan the group has the possibility and qualified to get a larger loan for larger activities and projects if desired. In this model the MFI has less work to do since the borrowers of the groups have most of the responsibilities such as: forming the group and selecting the right members, administration and organization of repayment plan and scheduling group meetings and meetings with the loan officers from the MFI (Hazeltine& Bull 2003).

### **2.1.2.2 VILLAGE BANKING**

It describes a community-based credit and savings association, run by a village itself. With this lending model, 25 to 50 low income members of a village, mostly women, join to take out a relatively large loan from a MFI and act as guarantors at the same time. After receiving the loan a self-appointed village committee decides who gets smaller loans out of the group. This model further enables saving deposits. The normal payback periods range from 4 to 12 months and only after completion a new loan can be taken for the community. The role of the MFI is to assist only in administration and technical issues (Hazeltine& Bull 2003).

### **2.1.2.3 GRAMEEN MODEL**

The Grameen model was invented in 1976 by Professor Muhammad Yunus, the founder and managing director of Grameen Bank. In this model basically a new branch of the MFI is set

up in a village with a field officer and some qualified workers, who have already done research on the population there in advance and made their choice according to its potential demand and its need of financial support. These employees of the MFI support then up to 15 to 20 villages in the surrounding and are strive to make the local, poor people aware of the microfinance possibilities through word of mouth and personal advisory.

The lending process is similar to the solidarity group approach. Groups of five are created. However in the beginning only two members of the group receive a loan and are monitored for one month. The credibility of the group will then be based on the repayment performance of the first two individuals, if they are reliable and could pay back their loan the remaining members qualify for a loan as well, since the group is jointly and severally liable for the single members (Hazeltine& Bull 2003).

#### **2.1.2.4 INDIVIDUAL MODEL**

With this model, the loan is given directly to the borrower and it is his/her sole duty to pay back the full amount plus interest rates without financial support from a group in case he/she defaults. Technical assistance as well as payment schedules and business management training is generally provided by the MFI (Hazeltine & Bull 2003).

The individual model is the most expensive and labor-intensive model for the MFI. Kuzu (in Guntz 2011) state that it is not unusual that the borrowers need to have a bailsman out of the family or community in order to receive a loan. But in this model clients have to be monitored and far more and deeper field research is necessary in order to choose the right clientele, especially because these people have no tangible collateral or credit history and in most cases are illiterate.

### **2.1.3 PERFORMANCE OF MICROFINANCE INSTITUTIONS**

Performance can be defined from different perspective and based on the major objective of the institutions or the organization its measurement differ from one another. The process of performance measurement involves a careful and deliberate observation of the organization outcome by comparing the achievement of the organization with the indented objectives that was to be achieved (Kipesha 2013b).

Performance measurement in MFIs has recently undergone some significant changes from both internal and external point of views. The external factors such as, changes in the business environment, changes in technology, involvement of commercial banks in MFIs and increased competition resulted into a shift in MFIs performance measurement trend with most of stakeholder requiring not only improvement in financial performance measures but also a balance between financial and non-financial measures (Hermes et al. 2011).

Based on the advice of Consultative Group to Assist the Poor (CGAP)at the time of analyzing performances analytical tools or indicators for financial and portfolio analysis can be divided into four key areas. Each measure is one important aspect of the financial organization. When combined, the key areas give a well-rounded global perspective of the financial situation. The key categories are four and they are: - first profitability and sustainability which shows the financial returns to the use of the capital and assets employed. Second asset/ liability management which shows the ability of the MFIs to manage its financial obligations when they become due, while maximizing the utilization of assets for profitable purposes. Next portfolio quality which shows the health of the loans outstanding in terms of its risk and the last is efficiency and productivity which shows the costs of an MFI in relation to the outputs.

Literatures (Panicker & Seshadri 2013; Kipesha 2013b; Al-Haidi 2009) indicate that performance measurement is mostly designed around financial measures and targets in operational and management control systems. Nevertheless, it is well known that financial measures are mostly effective in the short term only. Thus, where the performance management disregarded nonfinancial measures, the result was that the conclusion did not completely reveal the overall operations of the organizations.

Undue dependency on financial performance parameters is a myopia for the fact that overall strategic goal of the organization cannot be linked to performance indicator thus it is not possible to judge whether short term performance are contributing to long term sustainability of the organization. The growing criticism of financial measures used in the performance management system in the past few decades hence made the issue to become a hot topic (Al-Najjar 2012). In a bid to improve traditional performance management system Kaplan and Norton (1992) suggested the Balanced Scorecard (BSC) as a means to connect financial and non-financial performance measures.

The usage of non-financial and multiple performance measures, such as BSC has got a growing interest and improves the performance management system in various sectors, however the application in the context of MFIs is not well explored. In this regard, Atarera & Ototoka (2009) in their exploratory study “Importance of Balanced Scorecard to improve performance management system in microcredit Banks in Nigeria” pronounced that, *“Implementing the BSC in microfinance banks provides a comprehensive and consistent approach to organizational performance.”* Other exploratory study by Mustafa & Atta (2013) elucidated how BSC could benefit in improving performance evaluation of MFIs

where the double bottom line: financial and social performance measures are grouped under the BSC framework which enable to see how far the various non-financial and financial measures influenced to each other and ultimately influence the firms capability of attaining its overall goal of balancing sustainability (financial goal) and outreach (social goal).

#### **2.1.4 BALANCED SCORECARD**

Balanced Scorecard (BSC) is strategic formulation and performance measurement technique developed by R.S Kaplan and D.P Norton in 1996. As stated by Knapp (2001) the Balanced Scorecard management approach developed by Kaplan & Norton is based upon several foundational management theories, including:- Management by objectives (Drucker 1954); Principles of management (Fayol 1916); Open-book management (Case 1995); Leading change (Kotter 1996); Theory Y (McGregor 1960); Hierarchy of needs (Maslow 1962); and Value disciplines (Treacy & Wiersema 1995).

BSC translates an organization's mission and strategy in to a set of performance measures that provides the framework for implementation. BSC does not focus solely on achieving short run financial objective. It also highlights the non-financial objective that an organization must achieve to meet and sustain its financial objectives. The tool is called balanced scorecard because it balance the use of financial and non-financial performance measures to evaluate short run and long run performance.

As Modell (2011) state the development of BSC can be traced through the gradual evolution of the BSC as a strategic management system (Kaplan & Norton 1996) into comprehensive strategy maps (Kaplan & Norton 2001, 2004) and vehicles of corporate-wide strategic alignment (Kaplan & Norton 2006). The BSC approach sees the performances of any

organization or association from four perspectives and the following is a description of the BSC perspectives based on Kaplan and Norton (1996).

- I. **Financial Perspective:** Financial measures convey the economic consequences for the actions already taken by the organization, and focus on the profitability related measures on which the shareholders verify the profitability of their investment. Therefore, under this perspective managers are required to generate measures that answer the following question: *"To succeed financially, how should we appear to our shareholders?"* Kaplan and Norton acknowledge the need for traditional financial data. Under this perspective the most common performance measures incorporated are: return on investment (ROI), Cash Flow, Net Operating Income, Revenue Growth, etc.
- II. **Customer Perspective:** This is a strategy for creating value and differentiation from the perspective of the customer. The managers are obligated to produce measures to respond to the following question: *To achieve our vision, how should we appear to our customers?* Distinctive measures used under this perspective are: customer satisfaction, customer complaints, and customer lost/won, sales from new product, etc.
- III. **Internal Business Process Perspective:** This is a strategy for producing goods and services in the most efficient and effective methods. Consequently, managers are obligated to offer measures that answer the following question: *To satisfy our customers and shareholders, what business processes must we excel at?* The essential idea of this perspective is the consequences of the internal business processes which lead to financial success and satisfied customers. Commonly used measures for this perspective are: cost of quality, cost of nonconformance, process innovation, time savings etc.

IV. **Learning and Growth Perspective:** Under this perspective managers must identify measures to answer the following question: *"To achieve our vision, how will we sustain our ability to change and improve?"* Actually, this perspective is related to the employees of the organization, and it measures the extent to which the organization exerts efforts to provide its employees with opportunities to grow and learn in their domain. Kaplan and Norton acknowledge that the learning and growth measures are the most difficult to select; therefore they suggest the following measures as examples: employee empowerment, employee motivation, employee capabilities, and information systems capabilities.

Kaplan & Norton (1996) assume causal relationship between the above four perspectives and their assumption links organizational learning and growth with internal business processes, internal business process with customer perspective and finally customer perspective with financial perspective.

Atarera & Ototoka (2009) and Mustafa & Atta (2013) advocates categorizing existing performance MF performance measures under the BSC framework help in highlighting limitation of existing measures and the need for introducing additional, usually non-financial measures.

## **2.2 EMPIRICAL LITERATURES REVIEW**

The empirical literature review provides overview of studies conducted in different countries and especially in Ethiopia in relation to MFIs performance.

### **2.2.1 EMPIRICAL EVIDENCES FROM DIFFERENT COUNTRIES**

Lafourcade et al. (2005) conduct a study entitled overview of the outreach and financial performance of MFIs in Africa and 163 MFIs provided information for the study. As per this study MFIs in sub-Saharan Africa include a broad range of diverse and geographically dispersed institutions that offer financial services to low-income clients and they are NGOs, non-bank financial institutions, cooperatives, rural banks, savings and postal financial institutions, and commercial banks. Based on this study more than 70 percent of the reporting African MFIs offer savings as a core financial service for clients and use it as an important source of funds for lending. The other findings of this study showed MFIs in Africa tend to report lower levels of profitability, as measured by ROA, than MFIs in other global regions. Among the African MFIs that provided information for this study 47 percent post positive unadjusted returns; regulated MFIs report the highest ROA of all MFI types, averaging around 2.6 percent. On the other side African MFIs are among the most productive globally, as measured by the number of borrowers and savers per staff member. MFIs in Africa also demonstrate higher levels of portfolio quality, with an average portfolio at risk over 30 days of only 4 percent.

These study also state challenges that African MFIs are still facing and out of that operating and financial expenses are high, on average revenues remain lower than in other global regions, efficiency in terms of cost per borrower also lowest. Finally the study conclude that

African MFIs are important actors in the financial sector, and they are well positioned to grow and reach the millions of potential clients who currently do not have access to mainstream financial services but technological innovations, product refinements, and ongoing efforts to strengthen the capacity of African MFIs are needed to reduce costs, increase outreach, and boost overall profitability.

Moss (n.d.) prepares a report on the performance of MFIs for the year 2001 and 2002. This performance report is prepared based on the data from 147 MFIs which represents 53 developing countries world widely. The regions include Africa, Asia, Latin America and Europe.

As per this report microfinance remains primarily a credit-based industry. This is due to institutional difficulties of transforming weak-credit only NGOs into well-functioning regulated financial institutions capable of managing savings, insurance or remittances services other than just micro loans. In spite of this on performance trends, the international and continental level reflects sustained growth with regard to deepening outreach, and a maturing industry with an increase in credit risk. The report also showed there is still a gap between the performances of MFIs at international and national level in terms of sustainability, efficiency, productivity, capacity development, and levels of outreach. At national level, MFIs are still at embryonic phase hence loan methodologies still need to be improved.

Esubalew et al. (2010) also conduct a study entitled competition and performance of microfinance institutions. This paper examines the effect of competition among MFIs on their performance. The empirical investigation was based on data from 362 MFIs in 73 countries from Africa, East South and Central Asia, Pacific, Eastern Europe, Latin America,

Caribbean, Middle East, and North Africa, for the period 1995-2009. Lerner index measure of competition employed and the source of data was the MIX. Market Inc.

In the study performance was measured in terms of outreach, efficiency, loan repayment and financial performance. Based on their finding in almost all performance indicators, there appears a significant difference among MFIs that operate in high and low competitive environment. And they conclude intense competition overall, negatively associated with performance of MFIs.

A study by Kipsha & Zhang (2013) on Sustainability, Profitability and Outreach Tradeoffs: Evidences from Microfinance Institutions in East Africa had the objective of examining the presence of tradeoffs between sustainability, profitability and outreach to the poor. The study uses data from Microfinance information exchange database and the sample includes 47 MFIs operating in East African countries, which include Tanzania, Kenya, Uganda, Rwanda and Burundi. In this study nine indicators uses as proxies for sustainability and profitability of MFIs. The indicators includes operating self-sufficiency, return on asset, yield on gross loan, operating expenses to asset ratio, financial revenue to gross loan portfolio ratio, gross loan to asset ratio, debt to equity ratio, cost per borrower ratio and borrowers per staff ratio.

As per the result of this study using Welfarists approach the researchers found out that profitability focus has a negative impact on outreach to the poor, implying the presence of tradeoffs. The results on financial sustainability did not show presence tradeoffs with the outreach measures. Under Institutional view, the study found out that outreach to the poor has a positive relationship with both sustainability and profitability measures.

The study concludes that, the possibility of tradeoffs exists between outreach to the poor with profitability measures as compared to the outreach with financial sustainability. Finally this study recommends that MFIs in East Africa should focus on financial sustainability in order to reduce their subsidy dependence, ensure survival and growth in the future. On the other hand the study also recommends policy makers to consider that sustainability does not compromise the outreach to the poor and finally government also should review their policies governing MFIs to ensure that the institutions are directed towards sustainability. The government should also allow institutions to mobilize savings and offer other financial services to broaden their activities and the outreach to the poor.

Kipsha (2013a) studied the impact of size and age on MFIs Performance in Tanzania. The study uses panel data of five years and 30 MFIs participated in the study. The sources of the data used were mix market Inc. database, central bank of Tanzania, and the annual report of individual MFIs. As per the findings of the study positive impact of firm size measured by total asset and number of borrowers on the performance of MFIs in the country observed. On the other hand, the study found out that firm size measured by the number of staff was negatively related to the efficiency sustainability and profitability of MFIs reviewed. The findings of the study also show that the age of the firms which indicate firm experience have a positive impact on the profitability.

From the above findings, the study concludes that both firm size and age have an impact on Microfinance performance in Tanzania intermesh of efficiency profitability, sustainability and revenue generation capacity. Finally the study recommends that, the government policy makers should create good environment for the growth of MFIs.

### **2.2.2 EMPIRICAL EVIDENCES USING A BALANCED SCORECARD APPROACH**

Al-Haidi (2009) evaluates the self-sustainability of Yemeni MFIs using the balanced scorecard approach. To achieve his objective the researcher adopted extensive descriptive approach, all 11 registered MFIs in the country studied. As per the findings of this study only 12.5% of MFIs had reached financial self-sufficiency while only 50% of them had reached operational self-sufficiency; there was a weakness in general in the productivity of Yemeni MFIs. This study recommend enhance of strategic alliances that contribute in the reduction of capital cost and costs in general and contribute in increasing outreach, revenues and capacity building; Enhance the role of research and development and performance managements in order to strengthen the overall organizational performance.

Another study conducted by Nanayakkara & Iselin (2012) entitled “an exploratory study of the performance of micro-financing institutions using the balanced scorecard approach” in Sri Lanka with the aim of investigating the critical performance measures that MFIs need to emphasize in their performance reporting to drive high performance. The study first argues that four dimensions (sustainability, increasing the outreach, depth of outreach, and portfolio at risk) are needed to measure the performance of MFIs, and then analyzes the impact of eight performance-reporting measures on these dimensions using multiple-regression analysis. The instrument used to measure the variables was a structured questionnaire which is developed using Likert scale (ranging from 1 to 9).

As per the findings of this study the emphasis on “net cash flow” has a significant impact on improving two dimensions of performance: sustainability, and increasing the outreach. The latter is also affected by the emphasis placed on the “ratio of zero security loans to total loans” in performance reporting. The study also finds that the depth of outreach performance

dimension is predicted by the emphasis placed on the two performance reporting measures: ratio of operating expenses to number of loans and the average time to process a loan application.

Kipsha (2013b) conduct a study on performance of MFIs in Tanzania by applying integrating financial and non-financial Metrics. The study used BSC approach with five dimensions financial, social, customer, learning and growth and internal business process. A total of 29 Microfinance institutions operating in Tanzania were involved in the study and both primary data and secondary data were used.

The findings of the study indicate low average financial performance among MFIs reviewed. On average, the institutions reviewed were not sustainable with low relative productivity and low profitability. The average nonfinancial performance was high indicating that Microfinance institutions were better performing in nonfinancial measures compared to financial measures. The findings also show a positive correlation between overall financial performance with nonfinancial performance and overall performance. This indicates that tradeoff does not exist on financial and nonfinancial performance when measured in a collective way.

The results on individual financial performance metrics show a positive correlation with internal business process and learning and growth, and negative correlation with social and customer perspective. The results also show a positive correlation between the four dimensions of nonfinancial performance and with the overall financial performance.

### **2.2.3 EMPIRICAL EVIDENCES FROM ETHIOPIA**

Like any other developing countries the majority of smallholder poor farmers in rural and urban are not targeted by conventional bank credit market, hence, finance remained among the major challenge in realizing the pro poor economic strategies that aimed at reducing poverty and sustainable economic growth and development. As part of the solution microfinance service interventions in Ethiopia have been considered as one of the policy instrument (Alemayehu 2008).

The mainstream financial institutions in most developing countries decline to finance small holder farmers and micro and small enterprises for fear of risk and high transaction cost associated with microfinance, hence, most studies so far reviewed from (Bamlaku 2006; Befekadu 2007; Alemayehu 2008; Letenah 2009; Abate et al. 2013) considered sustainability of MFIs in reaching large number of poor who are in need of the service as a major issue in the performance of MFIs. This is off course consistent with the entire literature in which the issue of outreach and sustainability remained debatable. The summary of previous studies in Ethiopian microfinance institutions is given below.

Haileselassie (as cited in Bamlaku 2006) studied Level of outreach to the poor and financial sustainability of the institutions in case of two microfinance institutions (specialized financial and Promotional Institution (SFPI), and Poverty Eradication and Community Empowerment Microfinance Institution (PEACE). As reviewed and synthesized by Bamlaku (2006), the study of Haileselassie indicated that, Both MFIs have achieved a good balance in terms of reaching the poor and women, repayment performance and increment in savings in one side and on the other side these institutions are not financially self-sustainable, though there is

evidence that their progress is promising but can achieve it with adjusted lending interest rates.

Befekadu (2007) examined the performance of MFIs in Ethiopia with respect to outreach and financial sustainability using both primary and secondary data. The secondary data were collected from AEMFI and NBE for consecutive 5 years starting from 2003-2007. In addition, the study used questionnaire survey. The result of the descriptive statistics and correlation analysis employed in the study indicated that outreach measured by number of clients served had been increasing though reaching the disadvantaged specifically women were limited. It was also found on the study that sustainability measured in terms of ROA, ROE and profitability of the industry were encouraging and the institutions are hoped to be sustainable. While, dependency ratio measured by the ratio of donated equity to total capital decline, ratio of retained earnings to total capital is raising letting the industry to be financial self-sufficient.

The other finding of this study is positive relationship between outreach and sustainability unlike a tradeoff reported in literatures however, correlation test among loan size (which measure poverty level), outreach and profit performance, revealed imprecise result. The study also identified that a major challenges to the efficient operation of MFIs in Ethiopia and the majors were Less saving habits; Limited loan products; Absence of legal title of assets in rural areas; and Easy dissemination of bad mouthing; Less willingness from commercial banks to lend to MFIs without collateral; and also the legal environment which is not conducive enough in enforcing the loan contract.

Arega (2007) assess the financial and operating performance and challenges of MFIs in Addis Ababa. It had the objective of assessing and evaluating the core operations, evaluation

of the communities' opinion towards the services of the institutions, challenges of the institutions and the like and to achieve his objective the researcher use exploratory as well as descriptive research methodology. From the eleven MFIs at that time found in Addis Ababa three of them were selected with purposive sampling method. Accordingly, a total number of 36 officials and a total number of 300 respondents (clients) /100 from each/ have been selected with the accessibility technique from the active and inactive clients of the MFIs under consideration.

The result of this study showed the financial and operations reports were prepared in line with the accepted accounting standards; Females' participation in the services is average especially in the rural areas the participation of women is low compared to urban areas; the small loan size and short repayment period of the MFIs along with the high interest charge discourage clients, as a result of this, there is high client drop out and low client retention rates; client savings showed continuous increment over the studied period.

The result also showed almost all of the MFIs in the sample achieved far below their plan in connection with collecting the disbursed loans in sufficient amounts and on time from the clients; growth indicators like growth in portfolio, growth in borrowers, showed increasing pattern. The institutions ROA and ROE show unfavorable results and the efficiency of the firms in terms of operating cost ratios showed declining ratios. And also the institutions report relatively higher portfolio at risk ratios compare to their plans.

Alemayehu (2008) also examine the performance of MFIs in Ethiopia by taking six institutions. The study focused on analysis of profitability and sustainability, asset and liability management, and efficiency and productivity of MFIs in Ethiopian using a descriptive analysis of data collected from audited annual reports of 6 microfinance

institutions covering a period of five years (2002-2006). The result of the study showed that most of the MFIs were doing well in terms of Operational self-sufficiency and financial self-sufficiency though both operational and financial self-sufficiency declined with the size of the institutions.

The analysis of asset and liability management also showed that most of them used their asset for undertaking primary activity of lending. They also have a low cost capital which is below the commercial bank lending rate, but the debt to equity ratio was high in most of the cases. With respect efficiency large MFIs had a better operational efficiency than their small counter parts as measured by the ratio of operating expense to gross loan portfolio and cost of serving a single client. Yet, small ones were good in outreach measured by average loan size. In general Alemayehu concluded that the sustainability of large and medium MFIs in Ethiopia were encouraging, but the case in small MFIs demands consideration for the fact their good outreach measures are not accompanied with good sustainability indicators.

Letenah (2009) on his study of performance analysis of sample MFIs of Ethiopia evaluated both outreach and sustainability and explored the relationship between them. The study was conducted on 16 MFIs whose reports were available on Mix Market data. Data were analyzed using statistical analysis techniques specifically one sample t test, one way ANOVA with Scheffe Post Hoc Comparison tests, Kruskal-Wallis test and Pearson correlation coefficients.

The result of this study indicated that performance of MFIs in terms of depth of outreach for the fact they couldn't reached the poorest of the poor, but they are good at measures of breadth of outreach. Their cost management, efficiency and productivity enabled them to charge a lower price. Unlike the findings of Befekadu (2007), Letenah (2009) showed that

there is a tradeoff between serving the poor and being operationally self-sufficient. The finding on Letenah also confirmed Alemayehu (2008) in that the performance of MFIs institutions related with size where the higher the size the better the sustainability.

Yitay (2011) also assess institutional performance and sustainability of selected MFIs in Ethiopia using a sample of six. Mixed research methods employed and conventional financial performance and sustainability indicators and non-parametric DEA-based malmquist total factor productivity index model used. The study period cover 2003 to 2009.

As indicated in this study conventional financial performance and sustainability indicators revealed that all MFIs outreach performance has increased during the study period. Despite the increase in outreach performance, it is difficult for the institutions to operate and expand without subsidies. The other findings are technological change has higher value relevance than technical efficiency gain, and the intermediation services which is the responsibility of the MFIs to transfer funds from surplus groups such as from savers and donors to the deficit groups particularly borrowers or investors are more productive than the production responsibility of MFIs which considers the institutions as producers of deposits and loans.

The recent study of Abate et al. (2013) which is more rigors in its methodology also provided a good impression on sustainability and outreach performance of MFIs in Ethiopia. Their study compared the performance of financial cooperative and non-bank microfinance institutions engaged in micro financing in Ethiopia. This study showed a new dimension on microfinance performance evaluation by highlighting the difference between financial cooperatives, which are “member owned and save-led” and non-bank microfinance institutions which are a share companies where “credit proceed saving”. They argued that

such differences in ownership, source of capital and operational modalities have a bearing on performance, but not addressed on previous empirical studies. For this reason they collected data from annual reports of 30 MFIs and 70 financial cooperatives in 2011 and analyzed using a descriptive statics and ordinary least square regression model.

The study showed that the overall sustainability performance was encouraging, but when the sample is disaggregated by ownership the sustainability of MFIs appeared lower than that of financial cooperatives. The profitability of MFIs showed a significant positive relationship with interest rate, but in the case of financial cooperatives interest rate showed a sign of negative relationship. They also found a significant negative effect of cost of capital and labor cost on profitability in both MFIs and cooperatives which suggests that cost containment is essential strategy to improve sustainability of micro-financing regardless of the form of ownership.

Concerning other institution specific characteristics they found size had positive effect on financial performance consistent with previous studies however the negative relationship between age of the institution and financial performance demands a further investigation for the fact it came out to contradict with theoretical notion that experience of the firm measured by age can contribute to efficiency and, in turn for better financial performance.

With respect to outreach this study report a mixed result in which, Average loan size is positively linked with financial performance (although not significant so), suggesting smaller loans are, on average, less profitable. Serving more women tend to be linked with improved financial performance. Concerning the trade of between sustainability and outreach they found that ownership do have a relevant implications. While nonbank micro-finances were found to be better in both depth and breadth of outreach, they had a difficulty of balancing

outreach and sustainability. Yet they obtained a positive complementarity between outreach and financial viability for financial cooperatives. It is seen from the finding that charging high interest rate, which is consistent with the theory do not guaranty a high profitability, rather cost containment could result in the desired financial sustainability while serving the social mission of reasonable outreach as shown in the case of financial cooperatives.

### **2.3 CONCLUSION AND KNOWLEDGE GAP**

The contribution of MFIs in improving financial access to the poor and disadvantaged groups has brought visible change on socio economic life of clients in most developing countries, although microfinance outreach especially in addressing the poorest of the poor is still questionable.

The review of microfinance performance, including studies that used data from different countries and focused on a single country employed diverse performance evaluation methods. Almost all reviewed studies argued the difficulty of measuring and analyzing microfinance performance due to the fact that they are subject to a double bottom line: financial sustainability and outreach.

The challenges to financial sustainability of MFIs, commonly reported on various studies include: high operational costs due to the nature of their service that is highly geographically disbursed, primarily a credit-based industry, and lower levels of profitability. The financial performance of MFIs, especially, in Ethiopia was found to be affected by ownerships, size and Age of institutions. With respect to outreach, females' participation in the services of MFIs somewhat average, especially in the rural areas the participation of women is low compared to urban areas.

The need for balancing financial sustainability and attaining social objectives appears important issue on microfinance performance literatures. The result of empirical studies with respect to sustainability and outreach remained mixed. Just like reaching on similar findings there are points that studies results are vary one another even conflicting each other for instance Kipesha& Zhang (2013) state outreach to the poor has a positive relationship with both sustainability and profitability measures butLetenah (2009) state there is a trade of between serving the poor and self-sufficiency. Like so Letenah (2009) articulate MFIs in Ethiopia charge low interest rates however in the contrary Arega (2007) state high interest charge is discouraging clients. So even if the stated differences can't be addressed in this study it indicates the existence of a bleary vision that needs to be cleared out using further studies.

The review of empirical studies also revealed inconsistency of performance measurement techniques. The performance evaluations employed in most studies emphasized on financial performances. Albeit some non-financial measures were in use, only few (Al-Haidi, 2009; Nanayakkara& Iselin, 2012; Kipesha, 2013b) attempted to use a comprehensive and integrated performance evaluation, such as the Balanced Scorecard Approach (BSC).

The need for comprehensive evaluation of MF performance in Ethiopia and in other developing countries appeared important research area to enhance the relevance of existing mixed method empirical findings with respect to the dual performance perspectives of MFIs (sustainability and outreach). Moreover, the emerging recent innovation in MF performance evaluation using a BSC approach is found the apparent gap in the literature. Thus, this study aimed to contribute to MFIs performance literature, by developing and applying a BSC performance evaluation framework and showing the performance of Ethiopian MFIs.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

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*This chapter describes the overall journey of the study. Research approach and different techniques used are sharp here and based upon the review of theoretical and empirical literatures, the intended BSC performance evaluation framework developed in order to apply in measuring the performance of Ethiopian MFIs.*

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#### **3.1 INTRODUCTION**

The previous chapter showed what both theoretical and empirical evidences say about microfinance, performance measurements and balanced scorecard. This part of the study extends what is presented in chapter one under the methodology section and it deals about the overall journey of the research process to achieve its objective. The arrangement of this chapter is as follows: 3.2 present research approach, 3.3 target population, 3.4 procedures of data collection and followed by 3.5 which shows the data analysis and interpretation mechanism, 3.6 variable definition and rational for the selection, 3.7 the conceptual framework, and followed by 3.8 the hypotheses of the study and the last part 3.9 deal about the applied descriptive model.

#### **3.2 RESEARCH APPROACH**

Research is a systematic inquiry that helps to solve the existing or expected problems or to explain undiscovered facts by giving direction to the solution or by creating new knowledge. Commonly there are three research approaches namely qualitative research approach that is the one in which the investigator often makes knowledge claims based on the multiple meanings of individual experiences, socially and historically constructed meanings,

participation in issues, collaboration or change oriented with an intent of developing a theory or pattern (Mertens 1998). The second is quantitative approach and the third one is mixed research approach that gives an opportunity to use both approaches to benefit the study from the advantage of both qualitative and quantitative research approaches.

Quantitative research approach which is adopted in this study is an approach in which the investigator primarily uses postpositive claims for developing knowledge, i.e., cause and effect relationship between known variables of interest (Cresswell 2003). Quantitative research has two strategies of inquiry the first one is survey design which provides a quantitative or numeric description of trends, attitude or opinion of a population by studying a sample with the aim of generalizing about the population and the other experimental design used to test the effect of intervention on an outcome, controlling all other factors which may influence that outcome. Well designed and implemented quantitative research has the advantage of making generalizations to a wider population from the sample (Creswell 2003).

### **3.3 TARGET POPULATION**

Currently as of Jan 2014 there are 31 MFIs operate in Addis Ababa and in different Ethiopian regions. The studied MFIs are 8 and to see their basic information (refer appendix 8). The method of selecting these institutions was purposive and it's based on the availability of their head office in Addis Ababa and also annual reporting to AEMFI starting from 2007 to 2012 consecutively. The planed respondents were a total of 30 from each of eight selected MFIs comprising 15 customers and 15 employees. But at the time of collecting the data due to institutional size and structure making the collection uniform was not possible and a slight variance from the plan happen. The studied MFIs, together with respective respondent of both employees and clients summarized in table 3.1 below.

**Table 3.1 Summary of the studied MFIs and respondents**

Studied Microfinance Institutions	Employees	Clients
Addis credit and saving institute(ADCSI)	20	15
Africa village financial service(AVFS)	15	15
BussaGonffa MFI	10	cs
Metemamen MFI	10	cs
Oromia Credit and Saving S.C (OCSSCO)	20	15
Specialized Financial and Promotional Institution(SFPI)	15	15
Agar MFI	10	cs
Harbu MFI	10	cs
Total	110	60 + 4cs

**Source: Own computation based on survey result (2014)**

**Note:** “cs” client satisfaction survey substituted

Regarding the second respondent group clients, due to the difficulties of accessing the clients of the some MFIs the researcher administer the clients’ satisfaction from the reports of each MFIs operation department managers and previously done customer satisfaction survey of the institutions. In this regard Harbu MFIs present the client satisfaction survey which is done using 160 clients from three different Ethiopian regions. In a nut shell a total of 110 employees’ and 64 clients’ satisfaction survey was the sample of the study.

### **3.4 PROCEDURES OF DATA COLLECTIONS**

At the time of collecting the primary data first experts from NBE microfinance supervision department and AEMFI were asked to give weights for the two perspectives (financial and non-financial) and for each performance indicators under the four BSC perspectives. Then randomly selected employees from each of the selected institution inquired to fill the

questioner. The other one is customer satisfaction requisite which comprises 60 clients and administered by the researcher. participants right to participate or not, maintained and nothing was done unethically in addition to ethical aspects as (Copper & Schindler 2006) states participant perception influence the outcome of the research in subtle way so, no one participate in this study obligatorily or unwillingly. The secondary data source of the study was the annual report of AEMFI for the consecutive six years starting from 2007-2012.

### **3.4.1 SURVEY DESIGN AND INSTRUMENTS**

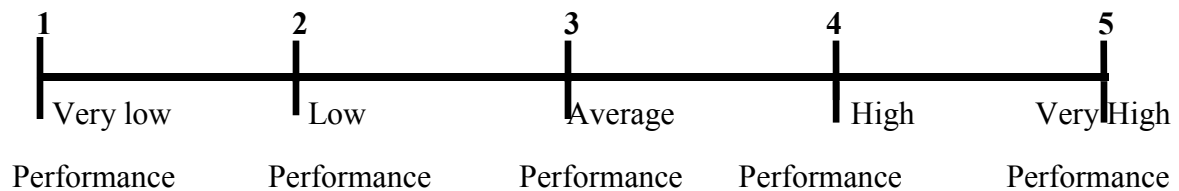
Survey design is a research method that used to collect data from the study participant on some set of managerially relevant way. This method of data collection is economically wise and helpful to attain rapid turnaround in data collection. The adoption of survey method in this study is to acquire information that was not available from other sources and to enjoy the great strength of the survey as a primary data collecting approach that is versatility. Beside survey have a lot of advantages out of that it is lowest cost option, allow participants to think about the questions, perceived as more anonymous, and it is a rapid data collection (Copper &Schindler 2006). From different means of survey administration face to face method of survey used for this study.

### **SURVEY INSTRUMENTS**

The survey instruments questioners,in this study developed by the researcher based on basic BSC theories and review of related literatures. The respondents were three groups. The first were the expertsfrom NBE MF supervision department and AEMFI. The second were the staffs of the selected MFIs and the third were clients. The questioners contains scaling and had only close ended questions and developed using five scale Likert model.

The researcher selects Likert scale method of questing because of the following reasons. First the response options covered 360<sup>0</sup> means from positive to negative dimension only precise wording is vary. Second the responses are comparable across different questions since the same numerical codes assigned. It is also possible with multiple items on the same broad object these codes can be summed or averaged to give an indication of each respondent's overall positive or negative point of reference towards that object. Above all it is simplicity and versatile.

**Figure 3.1: 5 Scale Likert Regions**



**Source: self-pictured based on literatures review(2014)**

Initially the questioners were prepared in English language but the two questioners which targets staffs and clients of MFIs translated to Amharic language to make it more suitable to the respondents. In addition with the aim of increasing its quality before the survey pilot test was conducted using friends and other individuals who have the knowhow of MFIs operations.

### **3.5 DATA ANALYSIS AND INTERPRETATION**

The secondary data that are assembled from the annual reports of AEMFI for the consecutive six years used mainly to analyze the financial perspective indicator and some aspects of non-financial indicators. The mean value of each indicators of performance drawn from annual report were converted in to five point Likert scale based on the benchmark in order to make the measurement of financial and non-financial perspective similar. Primary data collected

with respect to non-financial performance indicators measured by a five point Likert scale items questioners distributed to employees and clients were checked for completeness and entered into SPSS (Statistical Package for the Social Sciences) version 21 software.

The score of non-financial performance indicators to be used in descriptive model of the study were calculated. Then the comprehensive performance of Ethiopian MFIs was done by combining both financial and non-financial performance indicators. The results of the analysis are interpreted and discussed on the basis of literature review and theories. At the time of computing the overall score fractions approximate to the highest and lowest side based on basic mathematical assumption above .5 approximate to the highest and below .5 approximate to the lowest.

### **3.6 VARIABLE DEFINITION AND RATIONAL FOR THE SELECTION**

As shown on the literature review the performance of MFIs are measured using various performance indicators that show how far an institution achieved its business and social goals. The major aim of this study is to categorize the common MFIs performance measures and newly proposed ones in this study under the four perspectives of BSC in order to evaluate performance in light of the organizational strategy. Thus the variables of the study are performance indicators.

To the best of the researchers' knowledge, this is the first attempt to apply BSC in Ethiopian MFIs. Moreover, a few previous studies followed BSC in the context of other countries MFIs. Thus the categorization of performance indicators depends on few of existing literatures in MFIs and own judgment made using theoretical BSC literatures by Kaplan and Northan. What shouldn't be missed here is nothing can't be perfect at once and give similar

sense for everybody with similar degree of understandings. So, some of the rational states below may seem feeble for some group and may look strong enough for the other group. But since, research is a means to build a common ground and a way to create compatible knowledge on the studied issue, the researcher expects that the rationales are fair enough to select both the dimensions and indicators in each category.

### **3.6.1 PERFORMANCE DIMENSIONS**

In this study performance dimensions means, where the effect of the aggregate performance indicators or measures seen. The selected performance dimensions are supported by most of previously reviewed literatures and the Consultative Group to Assist the Poor (CGAP). CGAP is an international organization set up and funded by major international banks like the World Bank and the Asian Development Bank. The main objective of CGAP is to support the development of micro-financing sector around the world. CGAP has recommended to donors five performance areas (dimensions) to assist in identifying MFIs for funding. These are financial sustainability, outreach, and depth of outreach, portfolio quality, and efficiency. The selected four dimensions for this study are as follows and depth and breadth of outreach considered as one dimension.

#### **I. Sustainability and Profitability**

Sustainability refers to the ability of an MFI to maintain continuity in its operation. In other words sustainability can be defined as the ability of an MFI to cover its operating and other costs from generated revenue and profit. It is an indicator of how the MFI can run free of subsidies. Unless an MFI is sustainable, it will be unimaginable to achieve its objective. Although sustainability and profitability are directly related in commercial organizations, this

is not the case for MFIs. In order to be sustainable, profitability may remain a major factor for some MFIs, whereas for others it may depend on external grants and concessional funds from donors. With this standing point sustainability and profitability is considered as one of the key dimension of the MFIs performance.

## **II. Breadth and Depth of Outreach**

Efforts to extend microfinance service to the people who are neglected by mainstream financial institution are defined as outreach. Outreach can be measured from two perspectives breadth and depth. The depth of outreach of MFIs is measured by the deeper target group of very low income group. Lafourcade et al. (2005) said some MFIs achieve deeper outreach by targeting the client group that are most vulnerable such as women and/ or people with very low incomes. On the other hand breadth of outreach measures the number of clients served by the MFIs. So this performance dimension is highly valuable to measure the performances of MFIs with their intended objective.

## **III. Portfolio Quality**

Portfolio quality is a crucial area of performance indicator for the fact that the largest source of risk for any financial institution resides in its loan portfolio. The loan portfolio quality affects an MFI largest asset and the quality of that asset which poses risk on the institution is a serious issue. Especially for MFIs, whose loans are typically not backed by bankable collateral, the quality of the portfolio is absolutely crucial.

## **IV. Efficiency and Productivity**

Efficiency and productivity indicators are performance measures that show how well the institution is streamlining its operations. Productivity indicators reflect the amount of output per unit of input, while efficiency indicators also take into account the cost of the inputs and/or the price of outputs. As Jansson et al. (2003) explains MFIs have much lower rates of efficiency than commercial banks because on a dollar per dollar basis microcredit is highly labor intensive and a hundred-dollar loan requires about as much administrative effort as a loan a thousand times larger. In addition economies of scale have much less impact on efficiency in MFIs than is usually believed because of the high variable costs of the microcredit system.

### **3.6.2 PERFORMANCE INDICATORS**

Performance indicators are ratios, numbers and activities which used as a pointer to evaluate performance from different perspectives. The researcher selects five performance indicators in each perspective those have strong power to explain the performance of MFIs.

#### **I. Financial Perspective**

The financial category often uses conventional big-picture, long-term validate metrics that are traditional for ultimately measuring economic success. Under this perspective the selected five performance indicators are; adjusted return on asset(AROA) and adjusted return on equity(AROE) as a proxy for profitability, operating self-sufficiency (OSS) as a proxy for sustainability, PaR>30 days as a proxy for portfolio quality and ratio of operating expense to loan(ROEL) as a proxy of efficiency and productivity.

#### **A. Adjusted Return On Asset (AROA)**

Return on assets is a measure of profitability that shows how efficiently a company uses its assets to produce income (Needles & powers 2007). It is also an overall measure of profitability which reflects both the profit margin and the efficiency of the institution. ROA used in this study are calculated using financial data which is adjusted to inflation, cost of funds subsidy in kind subsidy and standardized loan loss provisioning, that is why it is called adjusted return on asset.

#### **B. Adjusted Return On Equity (AROE)**

Return on equity is a measure of profitability that relates the amount earned by a business to the stockholders' investment in the business (Needles & powers 2007). The return on Equity (ROE) Ratio provides information on how much net income was earned on the equity of an MFI. In other words, ROE reflects how much the MFI has earned on the funds invested by the shareholders/donors.

#### **C. Operating Self Sufficiency (OSS)**

Operating Self Sufficiency measures operating revenue as a percentage of operating and financial expenses including loan loss provisions expense. If OSS ratio is greater than 100% that MFI is covering all of its costs through own operation and it is not relying on contribution or subsidies from donors to survive Churchill & Frankiewicz (2006). For MFIs it is one of the major goals to achieve OSS in order to maintain feasible future growth in their operation.

#### **D. Portfolio at Risk > 30 Days (PaR)**

The most widely used measure of portfolio quality in the microfinance industry is Portfolio at Risk (PaR), which measures the portion of the loan portfolio infected by amount overdue as a

percentage of the total portfolio. A microenterprise loan is typically considered to be at risk if a repayment remained due for more than 30 days. This rule is much stricter than what is practiced among commercial banks, but it is justified given the lack of bankable collateral in microfinance (Jansson et al. 2003).

#### **E. Ration of Operating Expense to Loan (ROEL)**

ROEL is the most widely used indicator of efficiency. It allows a quick comparison between MFIs portfolio yield with its personnel and administrative expenses, how much it earns on loans versus how much it spends to make and monitor them (Rosenberg 2009). ROEL ratio is calculated by dividing all expenses related to the operation of MFIs including all the administrative and salary expenses, depreciation and board fees by the period average gross portfolio, interest and provision expenses (Wolday&Anteneh 2013).

## **II. Non-Financial Perspectives**

Under this performance perspective the three BSC viewpoints are included and under each of them five performance indicators are stated. Unlike the financial performance indicators the non-financial performance indicators may not be stated as a proxy for one single performance dimensions instead they may create a cause and effect relationship. For instance increasing number of clients and serving higher number of women in the institution can implicate the breadth and depth of outreach and the satisfaction of these clients also show the productivity and efficiency of employees besides serving high number of clients lead to financial performance. So, the selected performance indicators under this perspective have a power to affect the selected performance dimensions directly or indirectly.

## **I. Customer perspective(CP)**

The customer perspective seeks to understand how the organization interfaces with its customers in achieving its strategy stated with respect the value proposition. The selected five performance indicators are as below.

### **A. Percentage Change in Number of Clients (PCNC)**

The production approach considers microfinance business as firms that provide services for their clients; hence their outputs could be best measured by the number of clients (Olasupo & A. Afolami 2013). The main customers of MFIs are the poor who are in need of financial service. Having this theoretical view it can be argued that, increase in total number of clients implies that more people are offered financial service with potential welfare impact. Thus, increasing outreach (customer base) can be viewed as measure of an MFI performance linked with main strategic objective of serving the poor. This could be considered as one of customer perspective indicator in MFIs performance evaluation.

### **B. Percentage of Women Borrowers (PWB)**

Achieving only higher customer base may not guaranty to higher outreach since it only showed the breadth of outreach. Beside breadth of outreach, depth of outreach should have a good look if the microfinance addressed the underserved and marginalized as well. This social mission of microfinance measured by depth of outreach provides insight to donors and other stakeholders with social concern how far an MFI attained its strategic goal, i.e. financial service to low income clients. Some MFIs achieve deeper outreach by targeting the client the most vulnerable groups, such as women and/or people with very low income (Lafourcade et al. 2005). For the fact that, women are the most vulnerable and financially

underserved due to socio-cultural barriers when micro financing has been used as a means of achieving women socio economic empowerment it can be used as a measure of depth of outreach. So, with this understanding percentage of women borrowers included as one performance indicator in this study.

### **C. Percentage Change of Voluntary Saving (PCVS)**

On the whole, micro savings are grouped into two main types: compulsory and voluntary. Compulsory savings (forced savings) is defined as the minimum amount of savings which conditions borrowers' access to loans, and can be seen as a collateral substitute imposing a positive inducement for repayment. On the other hand voluntary savings (flexible savings) allows borrowers as well as non-borrowers to deposit or withdraw according to their needs Montgomery (as cited in Bruno 2011). Voluntary savings assumes that savings and credit are integral components of financial intermediation and that savers already know why and how to save Robinson (2001). So with understanding the higher the voluntary saving means the higher the institution perform in this indicator.

### **D. Customer Satisfaction (CS)**

Customer satisfaction is one of the most important and commonly used performance reporting measures under the customer perspective of the BSC. Improved customer satisfaction leads to loyal customers and increased market share, which directly affect the bottom line (BSCI 2002). Customer satisfaction can be seen from different point of view i.e. the accessibility of the institution, the time that loan application process need, the amount of the loan they can get, the interest rate charged on loan and provided on deposit, the time they have to pay back the loan, the approaches of the staffs to the client, and the like.

### **E. Clear Social Objective (CSO)**

Deferent institutions may have slightly different objective and the one that have clear social objective is expected to add more value to the society. In addition even if all MFIs have relatively similar objective (financial service to the low income group) developing clear social objective help out the institution as a whole and used as an alert to the staffs of the institution to remind their target and work for it.

## **II. Internal Business Process(IBP)**

The internal business processes perspective addresses internal operations and the day-to-day details of the business in achieving strategy. Under this perspective the selected indicators are:-

### **A. Borrowers per Loan Officer (BPLO)**

Borrowers per loan officer ratio capture the productivity of MFIs loan officers. The higher the ratio means the more productive the institution. It is one of the most recognized performance ratios in the microfinance industry. Like the personnel productivity ratio, the loan officer productivity ratio can indicate how well an MFI has adapted its processes and procedures to its business purpose of lending money (Wolday & Anteneh 2013).

### **B. Clear Institutional Strategy(CIS)**

Under internal business process which measures the critical internal processes in which the organization must excel, having well developed and applicable institutional strategy is the major one. In some cases strategies may seems ideal but it may not be applicable in realities and also there may be a gap between the group who develop the strategy and the institutions society as a whole. Kaplan & Norton (2001) suggest that successful strategy implementation

incorporates the following five strategic management principles. These are: - translate the strategy to operational terms, align the organization to the strategy, make strategy everyone's everyday job, make strategy a continual process and mobilize change through executive leadership.

### **C. Duration of Loan Application Process (DLAP)**

Loan applications process time is an important performance indicator under the internal business process perspective. It is also an important indicator in traditional financial institutions such as commercial banks. However, in MFIs, it becomes even more critical for grassroots-level borrowers since they are desperate to obtain the funds as soon as possible. On the other hand, most of these loans are given without any security, a fact that demands more careful appraisal of the loan applications. This will tend to lengthen the time of processing a loan application (Nanayakkara & Iselin 2012). So, this indicator can affect the performance in either direction positively or negatively.

### **D. Research and Development (R&D)**

Since internal business processes allow managers to know how their business is running and whether its product and services conform to customer requirements, a means of updated know how required. Continuous research and institutional development culture is one and the major. Using research, institutions observe the demand of the market, the satisfaction of their existing clients and also the possibility of further activities or services.

### **E. Report to AEMFI, NBE and Mix. Market Inc. (RE)**

Timely issued reports help stakeholders to have updated information about the institution. In addition issuing public information can serve the institution to get the valuable feedback on the gaps that needs improvement and also recognitions for best achievements. Since, NBE is

the administrator of all financial institutions and since AEMFI is the one that help MFIs in Ethiopia in exchanging their experience and facilitate to know the performances of each of them, timely reporting to this bodies expected to have great value in communication. On the other hand MIX. Market inc. is the link that gives information“s about MFIs to worldwide users and provides the expected information to mix. also expected as a good practice in the communication aspect.

### **III. Learning and Growth (LG)**

The learning and growth perspectives focuses on the organizations improvement, sustainability, and adaptation of a very future-oriented category, with metrics related to new markets and maintenance of intellectual capital. Under this analysis aspect the selected performance indicators are as below.

#### **A. Employee Satisfaction (ES)**

Employee satisfaction describes if an employees is pleased with their job and the employer. Some of the factors that contribute to employee satisfaction include empowerment of the employee, good salary, good benefits and recognizing good performance. In order to retain high quality acquisition professionals, and enhance worker performance, the work environment must be pleasant and include the necessary resources for accomplishment of work. This measure represents the employees“ degree of satisfaction with items such as tools provided, working conditions, and reward mechanisms. Since, employees are the means of all activates commonly achievement or failure directly or indirectly related to them and they are expected to use their full effort when they are satisfied with their job and the work environment they are in.

## **B. Employee Training (ET)**

Under the learning and growth perspective, the training of employees considered as an important aspect for MFIs. Some of the operational procedures of successful MFIs may be changeful. Therefore, employees of these MFIs need to acquire the appropriate special skills in relation to these innovative procedures for the respective MFIs to operate successfully (Nanayakkara & Iselin 2012). Hence, training of employees to acquire these skills plays a vital role in improving the performance of MFIs it is one of the selected performance indicators for this study.

## **C. Performance Feedback (PF)**

One of the key foundational concepts of the Balanced Scorecard is that employees are motivated by a clear „line of sight“ from their activities to the strategy of the organization (Knaap 2001). In order to know both strong and weak performance on responsibility employees need feedback on their performance. And also appropriate comments and reward or recognition is necessary. So having this culture can be seen as one of performance indicators under non-financial category.

## **D. Investment on Information System (IIS)**

Existing literature has indicated the lack of proper accounting and information systems as one of the major weaknesses of MFIs Mudenda (as cited in Nanayakkara & Iselin 2012). It is common for MFIs to operate in geographically widespread areas, a fact that increases their administration costs. Therefore, achieving efficiency and cost effectiveness through modern information and communication technology is suggested as an important aspect for an MFI. For these reasons investment on information system selected as one of performance indicating aspects under the learning and growth perspective of the BSC as Kaplan and Norton stated it.

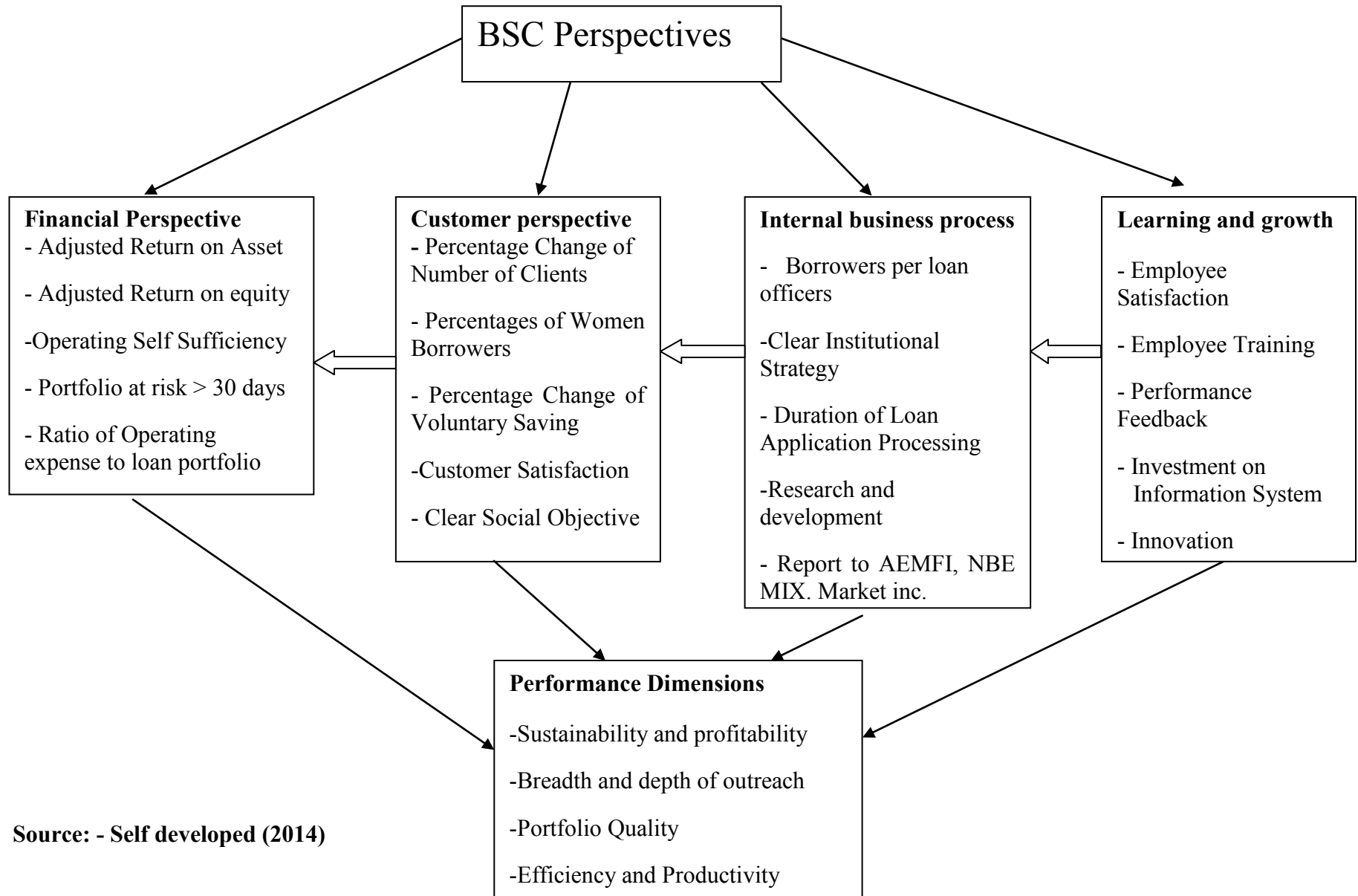
## **E. Innovation (I)**

Innovation can include both new discovery and incremental improvements in existing products or services. In either case, an organization can articulate, align, and communicate how innovation fits into its overall strategy. This ensures that innovation efforts are given the right focus and support, and that innovation truly becomes integrated with the rest of the organization's activities. Every organization whether a business, non-profit, or government agency, must innovate. Non-profits must address growing client needs, while dealing with cutbacks in funding and competition for philanthropic dollars (Montgomery & Perry 2000).

### **3.7 CONCEPTUAL FRAMEWORK AND HYPOTHESES OF THE STUDY**

The conceptual framework of this study is as pictured below and it is developed based on theories, different literatures reviewed and the researcher understanding. It is intended to summarize what in detail narrated about the BSC perspective, the performance dimensions and the performance indicators and it will help to show the whole idea of the study in a general form.

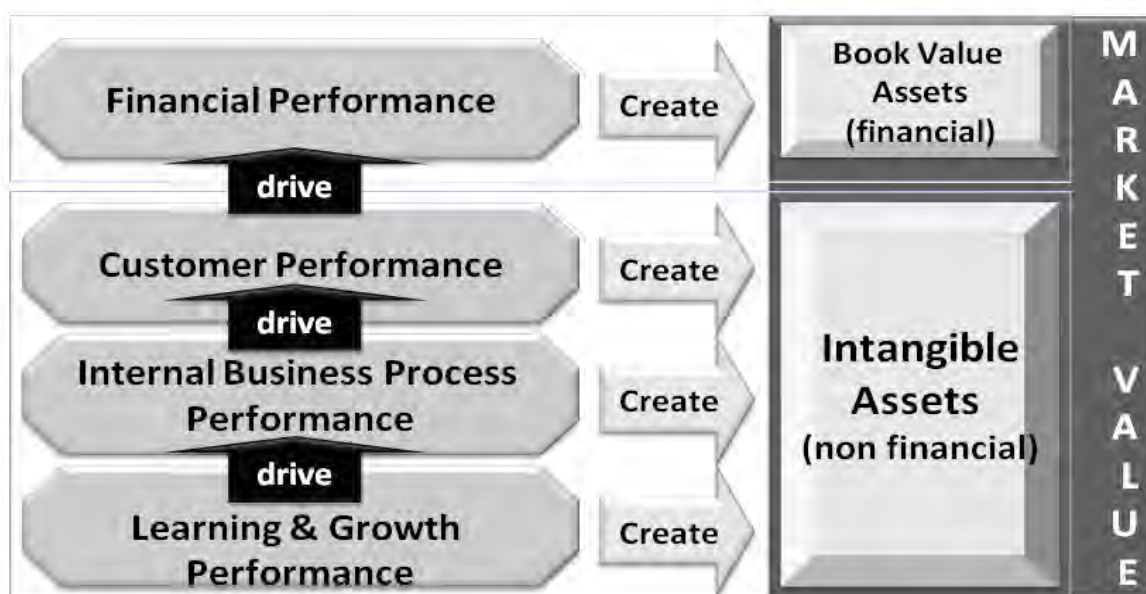
**Figure 3.2 Conceptual Framework**



Source: - Self developed (2014)

As presented in chapter one, the main objective of this study is to develop a balanced scorecard approach performance evaluation framework to be implemented in Ethiopian MFIs and to evaluate the performance of selected Ethiopian MFIs using the developed BSC framework. After the intended BSC framework is developed and the performances of Ethiopian MFIs are analyzed in line with the above conceptual framework, what is left is examining the extent to which the application of BSC in case of MFIs is successful by looking the fulfillment of the BSC approach assumptions. To do this the following 4 hypotheses are developed based on the cause and effect relationship assumption of BSC and the figure below summarize the cause and effect relationship assumption of BSC as pictured by Tarigan and Wedjaja(2012).

**Figure 3.3 balanced scorecard model**



Source: Tarigan and Wedjaja(2012)

***H1: There is positive correlation between learning and growth (LG) and internal business process (IBP).***

In this case BSC assume the performance of any organization with respect to learning and growth are the drivers of the performance of the internal business processes perspective. So, if the learning and growth performance of an MFI is well in turn the internal business process of that institution is well.

***H2: There is positive correlation between internal business process (IBP) and Customer perspective (CP).***

Like the case of the first assumption BSC assume the performance of internal business processes are the driver of the measures of the customer perspective. So if the internal business process performance of an MFI is effective and efficient, in turn the customer perspective performance also will be glowing.

***H3: There is positive correlation between Customer perspective (CP) and financial performance (FP).***

The next assumption that links BSC perspectives is the relationship between CP and FP which state performance on customer perspective is turn the drivers of financial performance. This means if customers' side performance is in good condition existing clients will be loyal to that institution and even new clients gripped and the financial performance of that institution will pushed up and vice versa.

***H4: There is positive correlation between financial performance (FP) and non-financial performance (NFP).***

BSC finalize by stating there is a positive relation between financial and non-financial performance. This means institution with high performance in its non-financial performance will perform highly in its financial performance as well.

### 3.8 APPLIED DESCRIPTIVE MODELS

To analyze the performance of MFIs in Ethiopia using the BSC approach, a descriptive model in which 20 performance indicators categorized under the 4 perspective of BSC as shown in figure 3.1, above were used and finally both the financial and nonfinancial performance merged together to wrap up the overall performances.

#### 3.8.1 DESCRIPTIVE MODEL OF FINANCIAL PERSPECTIVE

$$F (FP) = \alpha_1 AROA + \alpha_2 AROE + \alpha_3 OSS + \alpha_4 PaR + \alpha_5 ROEL \dots \dots \dots \epsilon 1$$

where F(FP) is the overall financial performance,  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$ ,  $\alpha_4$ , and  $\alpha_5$  are the corresponding weights for adjusted return on asset (AROA), adjusted return on equity (AROE), operational self-sufficiency (OSS), portfolio at risk > 30day (PaR) and ratio of operating expense to loan (ROEL) respectively. Like the financial perspective the non-financial perspectives also explained using the next descriptive models.

#### 3.8.2 DESCRIPTIVE MODELS OF NON FINANCIAL PERSPECTIVES

The descriptive models of non-financial perspective are also constructed using similar procedures discussed in the previous sub section. The three non-financial performance perspectives: customer perspectives (CP), internal business Process (IBP) and learning and growth (LG) perspective express in the following descriptive models.

$$F (CP) = W*PCNC + W*PWB + W*PCVS + W*CS + W*CSO \dots \dots \dots \epsilon 2$$

$$F (IBP) = W*BPLO + W*CIS + W*DLAP + W*R\&D + W*RE \dots \dots \dots \epsilon 3$$

$$F (LG) = W*ES + W*ET + W*PF + W*IIS + W*I \dots \dots \dots \epsilon 4$$

Where,  $f(CP_M)$  is the standardized nonfinancial performance score for customer perspective,  $f(IBM)$  is the standardized nonfinancial performance score for internal business processes and  $f(LG)$  is the standardized nonfinancial performance score for learning and growth perspective, “W” are the corresponding weights of each performance indicators in each of the nonfinancial performance perspectives and the overall standardized nonfinancial performance score is modeled in equation 5, that aggregated all the three NFP perspectives.

$$F(NFP) = \beta_1 f(CP) + \beta_2 f(IBM) + \beta_3 f(LGP) \dots\dots\dots \epsilon 5$$

Where,  $F(NFP)$  is the overall standardized nonfinancial performance score, and  $\beta_1, \beta_2, \beta_3$ , are the respective weights for customer, internal business process and learning and growth perspectives respectively.

The overall performance index (financial plus non-financial) was also captured using the following descriptive model.

$$PI = W_{FP} f(FP) + W_{NFP} f(NFP) \dots\dots\dots \epsilon 6$$

Where,  $PI$  is the overall standardized performance score value;  $W_{FP}$  and  $W_{NFP}$  are the corresponding overall weights of financial performance and nonfinancial performance respectively.

As shown above the skeleton of this study is set in this chapter and it shows the overall journey of the study to its intended general and specific objectives. The next chapter gives a life to this chapter by incorporating the collected data as per the developed model before.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSION**

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*This chapter presents the result of data analysis, interpretation and discussions made accordingly. The chapter first presents the chapter introduction followed by the result and discussion of weight assignment process to performance indicator done using opinions of MF experts. The descriptive analysis of performance and the hypothesis testing follow sequentially in the chapter.*

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#### **4.1. INTRODUCTION**

The preceding chapter presents the research methodology along with the choice and rationale of the research approaches adopted for the study. Moreover, the variables/indicators in the study and construction of the descriptive model employed in the process of evaluating Ethiopian MFIs performance were narrated. This chapter presents the result of data analysis, interpretation and discussions. The arrangement of this chapter is as follows: -

First the result and discussion of weight assignment process to performance perspective and each indicator had done using opinions of MF experts presented under the main section of 4.2 and subsequent sub sections. Then under section 4.3 the result of financial and non-financial perspective using both primary and secondary data which analyzed using the developed descriptive statistical model presented. Next both financial and non-financial perspective merged together as per the descriptive statistical model developed under section 4.4. Finally the hypothesis testing follows sequentially under section 4.5 in the chapter.

## **4.2 WEIGHT ASSIGNED TO PERFORMANCE PERSPECTIVES AND INDICATORS**

As stated on the previous chapters, 20 selected variables/ indicators of microfinance performance have been categorized under each of the 4 perspective in BSC. Each performance indicators have been weighted to develop an overall performance index in the descriptive model developed for the study. The assigned weights for financial and non-financial perspectives, for each NFP perspective and also for each of respective performance indicators were developed based upon the survey of experts in MFIs supervision division at National Bank of Ethiopia (NBE) and AEMFI.

The experts participated in the survey were asked to indicate, in their view, how much weights should MFIs should give to financial and non-financial performance, for each BSC perspectives and also for each performance indicator. Beside in order to convert the ratio or numbers in to Likert 5 scale they were asked to set a scale or benchmarks for some indicators which NBE didn't set a scale namely PCNC, PWB, PCVS, BPLO. Based upon their responses the average weights of each perspective were developed for subsequent usage in developing performance indices that enable to comprise financial and non-financial performance using identical unit of measurement. The weights assigned to performance indicators under each perspective are summarized on table 4.1, below.

**Table 4.1: Performance metrics and average weights**

<b>BSC perspective</b>	<b>Performance Indicator</b>	<b>Sub-weight</b>
<b>Financial performance (58 %)</b>	Adjusted Return on Asset (AROA)	19%
	Adjusted Return on Equity (AROE)	15%
	Operating Self Sufficiency (OSS)	30%
	Portfolio at risk > 30 days (PaR)	18%
	Ratio of Operating Expense to Loan Portfolio (ROEL)	18%
<b>Non-financial performance (42%)</b>		
Customer Perspective (16%)	Percentage Change of Number of Clients (PCNC)	26%
	Percentages of Women Borrowers(PWB)	17%
	Percentage Change of Voluntary Saving (PCVS)	25%
	Customer Satisfaction(CS)	17%
	Clear Social Objective (CSO)	15%
Internal Business process (15%)	Borrowers Per loan officers (BPLO)	20%
	Clear Institutional Strategy (CIS)	29%
	Duration of Loan Application Processing (DLAP)	20%
	Research and development (R&D)	19%
	Report to AEMFI, NBE and Mix. Market Inc. (RE)	12%
Learning and Growth (11 %)	Employee Satisfaction (ES)	23%
	Employee Training (ET)	19%
	Performance Feedback(PF)	10%
	Investment in Information System (IIS)	33%
	Innovation(I)	15%

**Source: Own computation based on questionnaire survey (2014)**

#### **4.2.1 WEIGHT FOR OVERALL FP AND NFP PERSPECTIVE**

The result of the survey seen on table 4.1 aboveshowed that most respondents, both from NBE and AEMFI placed higher weights to financial performance and their indicators unlike the previous study Kipesha (2013b) who employed the same approach in the Tanzanian MFIs and found that experts in his study gave higher weights for non-financial performances. The other study that can mediate the differences between Kipesha (2013b) and the current study is (Nanayakkara and Iselin 2012) which conclude MFIs give the most emphasis to the financial perspective in their performance reporting. The other difference between these two studies is Kipesha used opinion of the studied MFIs managers in Tanzania unlike the current study which used independent experts in supervisory institution and industry association which might also be the reason of the difference in weight assigned to financial and non-financial performance.

For the fact the opinion of independent professionals were used in determining weight to be assigned in this study the management biases is believed to be minimum. The other observation from the results on table 4.1, sustainability and profitability of Ethiopian MFIs, which is categorized under financial perspective of the developed BSC model in this study should be the major area of concern as per the opinion of surveyed experts.

Previous studies on performance of Ethiopian MFIs (Befekadu 2007; Alemayehu 2008; Letenah 2009; Abate et al. 2013) consistently found encouraging performance with respect to sustainability and profitability though variation across institutions of different size. Taking the findings of previous studies, it could be inferred that the need for higher profitability and sustainability of MFIs in Ethiopia is given a higher emphasis. So far, as it couldn't diverse outreach objective, profitability and sustainability are desirable.

In this regard as well, previous studies showed Ethiopian MFIs had been performing well in terms of outreach indicators. (Bamlaku 2006 and Befekadu 2007) and a study by Befekadu (2007) reported there was no tradeoff between sustainability and outreach which can be seen from financial (sustainability) and non-financial (outreach) perspectives. On the contrary to this low performance in depth of outreach reported by Letenah (2009) may raise a doubt on possible negative consequence of high emphasis for financial performance. Further, the trade of between sustainability and outreach on Letenah (2009) and the concern of Alemayehu (2008) on the sustainability of small sized MFIs that had a better outreach, could also explain the underpinning for high emphasis on financial performance in Ethiopian MFIs. Though, the major concern in this section of the study is to develop a performance weight to be used in the descriptive BSC model, the analysis provided an insight on emphasis on financial performance even if no clear evidence on how far financial performance focus affected social objectives mostly categorized under non-financial performance in this study.

#### **4.2.2 WEIGHT ASSIGNMENT FOR PERFORMANCE INDICATORS**

This section presents the weight assigned to each performance indicators under each perspective.

##### **4.2.2.1 FINANCIAL PERSPECTIVE**

Based on a 100%, the expert participated in the survey provided a higher weight to financial performance (52%). Five major financial performance indicators were presented for the experts to divide total weight of 100% to each based on their importance to MFIs in realizing their mission. As shown on table 4.1, above, on average operating self-sufficiency (OSS) received the highest percentage (30%) followed by adjusted return on asset (19%). Portfolio at risk and

ratio of operating expense to loan received 18% each. The lowest weight, 15% was assigned to adjusted return on equity.

Though high emphasis given to overall financial performance, the specific weight to each measure provided encouraging view with regard to sustainability rather than profitability, for the fact that more weight to OSS compared to profitability measure (AROA, AROE) may explain more interest on covering operational costs from operating revenue, which ensures independency of donation and subsidy that could make MFIs to have sustainable business models. This can be strengthening by the lowest weight given to AROE compared with even indicators of portfolio quality.

#### **4.2.2.2 NON-FINANCIAL PERSPECTIVE**

The overall weight to NFP is 42%. The weights given to each perspective and their specific indicators are discussed hereunder.

##### **I. Customer Perspective (CP)**

From the total of 42 % weight assigned to NFP, customer perspective (CP) received the highest weight (16%). Experts were also asked to allocate a total of 100% to each of the five indicators of customer perspective in accordance with their view on the importance of the performance indicators in realizing the mission of MFIs in Ethiopia. As shown on table 4.1, above, on average PCNC received the highest percentage (26%), and followed by PCVS (25%). PWB and CS received equal importance (17%). The lowest weight, 15% was assigned to CSO.

The highest weight assigned to PCNC showed high emphasis on breadth of outreach than the depth of outreach which is represented by PWB. Similarly, the second highest weight assigned to PCVS shows the need for mobilizing savings which strengthen MFIs performance by enabling them to operate from own pocket. The lowest focus given to CSO raise questions so

far as social objective is the underpinning factor to the emergence of MFIs, it deemed useful to clearly articulate the social objective and raise common understanding among the management, employees and other stakeholders in a ways the basic operation can be linked with meeting the social goals without depriving other aspects of performance measures. Beside higher emphasis on financial performance obtained in previous sub-sections coupled with lowest weight assigned to articulation of clear social objectives (CSO) and (CS) highlights the need for looking the linkage of Ethiopian MFIs institutional strategy to basic micro-financing groundwork.

## **II. Internal business process (IBP)**

The second non-financial perspective, IBP were given 15% out of a 42 % that experts provided to the three non-financial perspectives. As stated on the BSC assumption IBP has a direct bearing on CP, which includes measures of social objective and overall customer satisfaction, which in turn be reflected in financial performance. With respect to how far the experts allocated the overall score of IBP to each of five indicators under table 4.1, above, showed that on average CIS received the highest percentage (29%) followed by BPLO and DLAP 20% each. The last two indicators R&D and RE received 19% and 12% respectively.

In this perspective with the exception of highest emphasis to CIS and lowest emphases to RE the importance of three indicators are almost equally considered. Since, clear institutional strategy lead to the achievements of mission or objective it is encouraging. But, the lowest weight assigned to RE shows in some way the communication aspectis abandon.

### **III. Learning and Growth (LG)**

Out of the overall 42% of weight assigned to non-financial perspective the expert participated in the survey provided 11% to learning and growth. Five major learning and growth indicators were also rated out of 100% with respect to their effect on LG and the implication on subsequent perspectives of performance. As observed from table 4.1 above, the first and second highest importance is given to IIS (33%) and ES (23%) respectively. Whereas, ET, I, PF each received 19 %, 15%, and 10% of the total weight respectively.

LG is a foundation which has direct implication on IBP which in turn could be reflected on CP that contains majority of social objective linked performance indicators and financial performance but have lowest weight out of the nonfinancial performance perspective. The experts in the survey are in view of high importance to investment in information system(IIS) which is followed by capacitating employees through busting satisfaction, which appeared to have possible positive implications towards enhancing efficiency and effectiveness desired for the double bottom-line.

Innovation and feedback to employees are considered as less important even if innovation is the source of long-term success and competitiveness based on BSC assumption. Likewise BSC assumes feedback and reward is the source of motivation to employees who are the engines of the overall activities of any organization but from the above weighting RE received the lowest of all indicators not only from the LG indicators but also from the overall performance matrix and it indicates the need for looking the human resource management aspects of Ethiopian MFIs.

### 4.3 DESCRIPTIVE STATISTICS

The role of statistics in research is to function as a tool in designing research, analyzing its data and drawing conclusions there from. Descriptive statistics concern the development of certain indices from the raw data (Kothari 2004). In this study since the developed model is descriptive in its nature the detail of each model and calculation is stated below.

#### 4.3.1 FINANCIAL PERFORMANCE (FP)

The financial perspective of MFIs performance analyzed using data from 8 MFIs covering a 6 years period, which made 48 observations. After the mean of each year data calculated and considered as the industry result it is changed to five scales Likert using the benchmark which is developed by NBE (see appendix 7). Then the mean score of each financial performance indicators used in the descriptive statistical model designed to compute an overall financial performance. The SPSS output for descriptive statics of financial performance indicators are summarized on table 4.2 below.

**Table 4.2: Descriptive statistics for FP**

	N	Minimum	Maximum	Mean (Likert)	Std. Deviation
AROA	6	1.25	4.5	3.416667	1.13652
AROE	6	1.125	3.375	2.520833	.83821
OSS	6	3.125	4.125	3.75	.37914
PAR	6	2.875	4.25	3.770833	.52092
ROEL	6	4.125	5	4.770833	.32032
Valid N (list wise)	6				

**Source: Own computation based on data from annual reports of AEMFIs (2014)**

The overall financial performance computed by aggregating the five indicators as follow:-

$$\begin{aligned}
\text{Descriptive model } \Rightarrow F (FP) &= \alpha_1 AROA + \alpha_2 AROE + \alpha_3 OSS + \alpha_4 PaR + \alpha_5 ROEL \\
&= 19\% (3.42) + 15\% (2.52) + 30\% (3.75) + 18\% (3.77) + 18\% (4.77) \\
&= 0.6498 + 0.378 + 1.125 + 0.6786 + 0.8586 \\
&= \mathbf{3.69}
\end{aligned}$$

Based on the above analysis the financial performance of sample MFIs in the study using the developed descriptive statistical model is 3.69. This result indicated an overall high performance based on the developed 5 scale Likert for the study albeit it is not far from the floor of the high performance category (3.5-4.5).

Out of the average result of each financial perspective variable/indicators, the first two variables are AROA and AROE which are the most commonly used indicators to measure MFIs ability to continue operating in the future. On one hand ROA indicates how well an institution is managing its asset to optimize its profitability and on the other hand ROE indicates a MFIs ability to build equity through retained earnings and demonstrate an institution's capacity to generate income from its core financial activity (Wolday&Anteneh 2011).

The score of AROA and AROE is 3.42 and 2.52 respectively. Both are under the category of average performance in this study which holds score from 2.5 to 3.49. From the value it is visible that even if AROE is under average performance level, it is the ceiling of this category or so much near to low performance. It indicates the existence of performance gap which needs to be filled in order to operate in the future especially with regard to ROE. This finding is aligned with that of Arega(2007) who concluded ROA and ROE of Ethiopian MFIs were not satisfactory and also Lafourcade et al. (2005) who reported that MFIs in Africa tend to report lower levels of profitability as measured by ROA.

Out of the five variables under financial performance OSS is the one with the higher weight and the average score of the studied MFIs is 3.75. This result showed MFIs in Ethiopia have high performance in terms of OSS or they are at a lower risk about the extent that their financial revenue covers their financial expense.

Regarding the PaR> 30days the average score shows 3.77 which is also under high performance category. This means MFIs in Ethiopia are at high level of controlling risks in relation to their loan. This result is in line with the findings of Lafourcade et al. (2005) which conclude MFIs in Africa demonstrate higher levels of portfolio quality with an average portfolio at risk over 30 days. And lastly out of the financial performance indicators even from all other indicators under the non-financial performance the highest average score is achieved by ROEL which is 4.77 fall under the very high performance category. This score explains MFIs in Ethiopia are performing very highly in controlling and monitoring their cost of offering a micro-credit service, which has been considered as costlier in mainstream financial institutions.

#### **4.3.2 NON FINANCIAL PERFORMANCE (NFP)**

Since the approach applied in this study is BSC this part of the analysis shows the result of the non-financial perspective that are customer, internal business process and learning and growth perspective. As stated in the methodological part the sources of this part are hybrid or both primary and secondary. So, before the main analysis the respondent profile and the reliability of the data, which is examined using Crombach Alpha presented below.

#### 4.3.2.1 RESPONDENT'S PROFILE

The participants of the study are from three categories and all are summarized below based on their basic information.

**Table 4.3: Experts participated from NBE and AEMFI**

Sex	Masters and above	BA degree	Work experience	
			Less than 5 yr.	6-10 yr.
Female	-	-	-	-
Male	-	10	6	4
Total	-	10	-	-

**Source: Own computation based on questionnaire survey (2014)**

**Table 4.4: Respondent employees of the studied MFIs**

Sex	Academic qualification					Work experience		
	Masters and above	BA degree	Diploma	Secondary school complete	Total	Less than 5yr.	6-10yr.	More than 10yr
Male	3	55	24	-	82	54	22	6
Total	4	73	31	2	110	70	32	8

**Source: Own computation based on questionnaire survey (2014)**

As observed from table 4.4 above, a total of 110 employees, 28 female and 82 male respond to the questionnaire targeting the staffs. In terms of academic qualification yet staffs with second degree were few in number, BA degree and diploma holders are accounted the largest portion of the sample (94.5%). This contribute a lot to the possibility of getting quality data for the fact majority of the respondents are well educated to comprehend the questions about the aspects of NFP specifically LG and IBP.

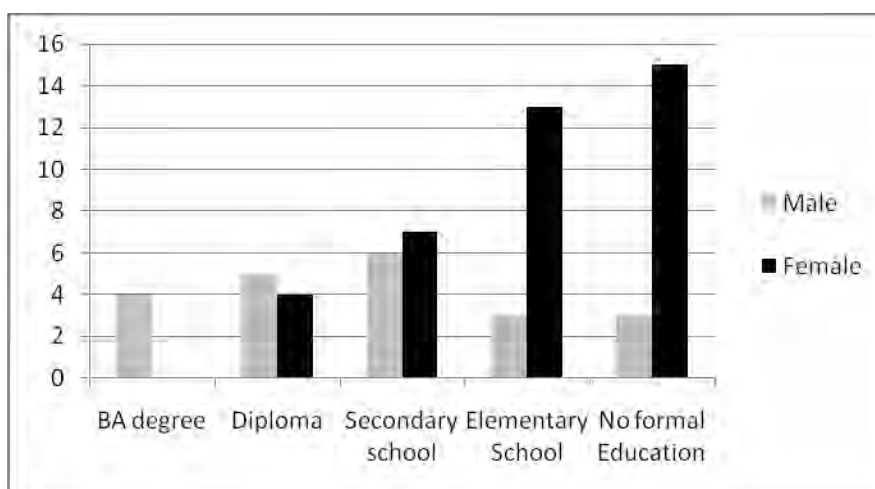
The other groups of respondents were clients of the studied MFIs and they questioned about their satisfaction.

**Table 4.5: Respondent clients of the studied MFIs**

Sex	Academic qualification					Total	Service year		
	BA degree and above	Diploma	Secondary school complete	Elementary school complete	No formal edn.		Below 5yr.	B/n 6 to 10 yr.	Above 10 yr.
	Female	-	4	7	13	15	39	25	10
Male	4	5	6	3	3	21	14	5	2
Total	4	9	13	16	18	60	39	15	6

**Source: Own computation based on questionnaire survey (2014)**

**Figure 4.1 Respondent clients academic background**



**Source: Own computation based on questionnaire survey (2014)**

There are two observations from the above respondents profile figure. First, most respondents around 64% is female and the rest 36% is male and the second observation is academic backgrounds of the male clients is better than the females which is dominated by no formal education back ground clients. This support the theoretical assumption of Micro-financing approach which state microfinance is aimed to assist the poor and neglected from mainstream

financial institutions. Guntz(2011)states most of the clients of MFIs are people who have no tangible collateral or credit history and in most cases are illiterate.

#### 4.3.2.2 DATA RELIABILITY TEST

In view of the fact that the sources of the data or the respondents are different in number and group, the researcher tests the reliability of the data two times. First for the nine NFP variables which have 24 questions and 110 respondents and then for one NFP variable which have 10 questions and addresses the customer satisfaction with 64 respondents. In both case the Cronbach’s Alpha shows acceptable result even if the first test is better than the second one, as can be seen below.

**Table 4.6: Case Processing Summary of NFP survey**

	N	%
Valid Cases	110	100.0
Excluded	0	.0
Total	110	100.0

Source: Own computation based on questionnaire survey (2014)

**Table 4.7: Reliability Statistics of NFP survey**

Cronbach's Alpha	N of Items
.915	24

Source: Own computation based on questionnaire survey (2014)

**Table 4.9: Reliability statistics of CS**

**Table 4.8: Case Processing Summary of CS survey**

	N	%
Valid Cases	64	100.0
Excluded	0	.0
Total	64	100.0

Source: Own computation based on questionnaire survey (2014)

**Survey**

Cronbach's Alpha	N of Items
.709	10

Source: Own computation based on questionnaire survey (2014)

A Cronbach's Alpha estimates the proportion of variance in the test scores that can be attributed to true score variance (Brown 2002). From table 4.7 above, Cronbach's alpha value of 0.915 indicates 91.5% reliability of data collected from randomly selected staffs of MFIs. Similarly, table 4.9 present a Cronbach's Alpha of 0.709 which shows 70.9% data reliability of customer satisfaction survey. The following sub-sections present the results on NFP score from the analysis of the descriptive statistics using both primary and secondary data.

#### 4.3.2.3 CUSTOMER PERSPECTIVE

Under the non-financial performance, customer perspective is the first and in this study the researcher try to see it from PCNB, which can shows the breadth of outreach, PWB as an indication of depth of outreach, PCVS and CS as an indication of efficiency through customer satisfaction, and lastly CSO as an indication of social objectives. The following table summarized results of descriptive statistics computed for each of the indicators under CP.

**Table 4.10: Descriptive statistics for CP**

	N	Minimum	Maximum	Mean (Likert)	Std. Deviation
PCNB/C	6	2.75	3.88	3.2917	.38456
PWB	6	4.00	4.25	4.1250	.11180
PCVS	6	2.50	4.50	3.1250	.76649
CS	64	3.20	5.00	4.3592	.40100
CSO	110	2.33	5.00	4.2233	.39584
Valid N (listwise)	6				

**Source: Own computation based on data from annual reports of AEMFI & Questionnaire survey (2014)**

$$\begin{aligned}
 \text{Descriptive model } \implies F(CP) &= W*PCNC+W*PWB+W*PCVS+W*CS+W*CSO \\
 &= 26\%(3.3)+17\%(4.13)+25\%(3.13)+17\%(4.4)+15\%(4.2) \\
 &= 0.858 + 0.7021 + 0.7825 + 0.748 + 0.63 \\
 &= \mathbf{3.7206}
 \end{aligned}$$

The result of CP computed by substituting the mean score of each performance indicators under the descriptive statistical model and it shows 3.72. Based on Likert five scale adopted for this study this result failed under the high performance category.

Looking at the average contribution of particular customer perspective performance indicators, PCNC is the first with a score of 3.3, indicating that the performance of Ethiopian MFIs measured by breadth of outreach is average and encouraging since it is approaching to the high performance category. Whereas, the percentage of women borrowers (PWB) is 4.13, showing high performance on depth of outreach. As Abate et al. (2013) states serving more women tend to be linked with improved financial performance. Beside the contribution of this indicator of CP appeared to be paramount importance, for the fact addressing large number of the poor who had been without access to basic financial service, including marginalized and underserved groups such as, women is at the core of the Microfinance vision.

The percentage change of voluntary saving made by clients is also a concern for the fact; it has not yet crossed the average performance score. With respect to the importance of saving to envisaged outcomes of MFIs Robinson & Graham (2011) argued that increase in voluntary saving not only benefit the client, but also the MFIs and the entire economy. It is also pointed out on CGAP (1997 no.8) the working poor already save and what is required are institutions and services appropriate to their needs. Thus, Ethiopian MFIs are supposed to devise ways to improve both breadth of outreach and amount of voluntary saving, which both are important for clients, MFIs and the economy as a whole.

The last two indicators, customer satisfaction (CS) and clear social objectives (CSO) shows a high performance score of 4.4 and 4.2 respectively. Even the score of the CS is the ceiling of the high performance category. This indicates MFIs clients are highly satisfied with the service

they are getting from MFIs. Scoring high performance on CSO is also a promising given that clear articulation of social objective facilitates integrating social objectives through daily operation and strategy. Moreover, creating a linkage between organizational strategy and social performance indicators can also be achieved if the objectives are clearly identified.

#### 4.3.2.4 INTERNAL BUSINESS PROCESS (IBP)

Internal business processes which notice the strategy of producing goods and services in the most efficient and effective methods is the other non-financial perspective. Under this perspective BPLO, CIS, DLAP, R&D and RE are included as performance indicators. The descriptive statistics result of this perspective is shown in table 4.13.

**Table 4.11: Descriptive statistics for IBP**

	N	Minimum	Maximum	Mean (Likert)	Std. Deviation
BPLO	6	1.63	2.00	1.9375	.15309
CIS	110	2.33	5.00	4.3067	.65251
DLAP	110	1.00	5.00	4.0500	.92524
R&D	110	1.67	5.00	3.3333	.50457
RE	110	2.00	5.00	4.1000	.88192
Valid N (listwise)	6				

**Source: Own computation based on data from annual reports of AEMFIs & questionnaire survey (2014)**

$$\begin{aligned}
 \text{Descriptive model} &\implies F(\text{IBP}) = W*BPLO + W*CIS + W*DLAP + W*R\&D + W*RE \\
 &= 20\%(1.94) + 29\%(4.3) + 20\%(4.05) + 19\%(3.3) + 12\%(4.1) \\
 &= 0.388 + 1.247 + 0.81 + 0.6327 + 0.492 \\
 &= \mathbf{3.5697}
 \end{aligned}$$

The result with regard to IBP of the sample institutions studied using the descriptive statistical model is 3.57. This is under high performance score category of the five scale Likert adopted in this study. The average result of each IBP performance indicators shows different

performance levels. The average score of BPLO is 1.94 which is under low performance category and the result suggested that, low staff productivity among the studied MFIs in terms of serving borrowers.

Other IBP indicators, namely: CIS, DLAP, RE recorded encouraging result. As can be seen from the table above CIS, DLAP, RE had an average score of 4.3, 4.05, and 4.1 respectively. This indicates MFIs under the study performed highly in developing better business process through having a clear institutional strategy, and speedy loan application process, which potentially improve customer perspective through its measured indicators. High performance on RE also shows the good communication culture of the studied MFIs. The result of research and development is 3.33 it means under the average performance category and it implies Ethiopian MFIs needs to give emphasis with regard to this indicator.

#### 4.3.2.5 LEARNING AND GROWTH

Under this perspective the included performance indicators include are: - employee satisfaction (ES), employee training (ET), performance feedback (PF), investment on information system (IIS) and innovation (I). The results of the descriptive statics on LG perspective, along with performance indicators are presented below.

**Table 4.12:- Descriptive statistics for LG**

	N	Minimum	Maximum	Mean	Std. Deviation
ES	110	1.00	5.00	3.4500	.951546
ET	110	1.00	5.00	3.2200	1.11537
PF	110	1.00	5.00	3.4909	1.13158
IIS	110	1.33	5.00	3.6100	1.00622
I	110	1.00	5.00	3.5433	.945390
Valid N	110				

**Source: Own computation based on questionnaire survey (2014)**

$$\text{Descriptive model } F(LG) \Rightarrow W*SE+W*ET+W*PF+W*IIS+W*I$$

$$=23\%(3.45)+19\%(3.22)+10\%(3.49)+33\%(3.61)+15\%(3.54)$$

$$= 0.7935+0.6118+0.349+1.1913+0.531$$

$$=3.4766$$

The overall performance score of LG perspective from the descriptive statistical model is 3.48, which is the ceiling of average score. With the exception of investments in information system and innovation which are under high performance category even if it is the floor, all other performance indicators of LG perspective are under average score. This indicates that there is questionable performance with respect to LG unlike the other perspective and it requires earnest consideration for the fact it could directly attributed for low performance measures in IBP, which implicate with measures of CP and next measures of FP.

#### 4.3.2.6 OVERALL NON-FINANCIAL PERFORMANCES PERSPECTIVE

The final performance score of the three non-financial perspectives calculated by merging the three separate descriptive models stated above. This enables to examine extent of achieving non-financial strategic objectives from different point of view.

$$\text{Descriptive model } \Rightarrow F(NFP) = \beta_1f(CP) + \beta_2f(IBP) + \beta_3f(LGP)$$

$$= 38.1\% (3.7206) + 35.7\% (3.9604) + 26.2\% (3.57)$$

$$= 1.4175486+1.4138628+0.9352614$$

$$= 3.77$$

The average overall non-financial performance score is 3.77, which shows a high level of attaining non-financial objectives. Nevertheless, the result is not much far from the bottom of high performance, which reveals latent attention for enhancing non-financial performance,

specifically in the indicators of LG and CP in which some indicators only scored average and even low performance level.

#### **4.4 OVERALL PERFORMANCE**

The last descriptive statistics model used in the study to develop overall score of strategic performance is combining all the BSC perspective. The three non-financial perspectives already aggregated on the model of overall NFP. Finally to draw the overall performance index FP and NFP merged and the result is as follows.

$$\text{Descriptive model} \Rightarrow PI = W_{FP}f(FP) + W_{NFP}f(NFP)$$

$$= 58\% (3.69) + 42\% (3.77)$$

$$= 2.1402 + 1.5834$$

$$= 3.7236$$

As can be observed from the result, MFIs in Ethiopia are highly performing despite the fact that not all 20 performance indicators score high performances. This means the entire performance can be furthered by enhancing indicators identified with low and average score under each of the four perspectives.

The other sticking observation is the balance between overall non-financial and financial performance. This finding confirmed previous studies that concluded there was no trade-off between outreach and sustainability in Ethiopian MF industry (Befekadu, 2007). Off course the empirical evidence on the trade-off between outreach and sustainability is mixed, hence, the finding in this respect is in contradiction with Letenah (2009) who found a trade of between outreach and operational self-sustainability.

#### **4.5 RELATIONSHIP BETWEEN THE MFIs PERFORMANCE PERSPECTIVES**

As pointed out in chapter three, the hypotheses formulated in this study assumed performance indicators of MFIs which are categorized under the four perspectives of the BSC model exhibit a positive relationship to each other. This means excellence in one perspective will have a positive effect on the other/s, which ultimately enable better attainment of the broad strategic objective.

Among the measures of relationship Karl Pearson's coefficient of correlation is the commonly used measure in case of statistics of variables measured at ratio and interval scales (Kothari 2004). Thus, Pearson Correlation is employed to examine whether the hypothesized relationship between the variables really exists or not.

The person correlation coefficient "r" measures the association between variables and shows both the direction and strength of association. One importance of correlation is information on the degrees/strength of the relation between variables. In general the higher the correlation coefficient means the stronger the relationship. A positive coefficient of r shows a direct relationship; whereas negative value of r indicates an inverse or indirect association. The strength of association is also determined by the value of r. According to Dancey and Reidy's (2004) when 0 and 1 is a value of the Correlation Coefficient, it represents the existence of no relationship and perfect relationship respectively. The value between 0 and 1 are categorized as follows: r between 0.7 - 0.9 indicates strong; r between 0.4 - 0.6 indicates a moderate; and r in between 0.1 - 0.3 means a weak association.

The hypotheses stated about the relationships between the four performance perspectives based on their cause and effect relationship chain tested in the study are presented hereunder.

First the relationship between LG and IBP tested, followed by IBP and CP, then CP and FP, and finally the association between overall FP and NFP tested.

**H1: There is positive correlation between learning and growth and internal business process.**

**Table 4. 13: Correlations between LG and IBP**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

		NFPLG	NFPIB
			P
NFPLG	Pearson Correlation	1	.489**
	Sig. (2-tailed)		.000
	N	110	110
NFPIBP	Pearson Correlation	.489**	1
	Sig. (2-tailed)	.000	
	N	110	110

**Source: Own computation based on data from annual reports of AEMFIs & questionnaire survey (2014)**

Observation of the result on table 4.13 revealed that learning and growth shows a statistically significant ( $P=0.01$ ) moderate positive correlation ( $r=0.489$ ) with internal business process. The direction of association is consistent with theoretical assumption of BSC literatures that states the learning and growth perspective performance of each organization is the driver of the internal business process perspective (Tarigan and Wedjaja 2012). Hence, H1 is accepted. This could suggest improving performance from LG perspective in MFIs could have positive implication on IBP performance as articulated theoretically.

**H2: There is positive correlation between internal business process and customer perspective.**

The chain of relationship in BSC link IBP to CP. The internal business process in the context of MFIs is designed to include indicators showing efficiency and effectiveness of the business

process which is believed to affect customer satisfaction, which underpins better service and benefit of target clients, which in turn drive the double bottom line. The correlation statistics with respect to IBP and CP is presented on table 4.14.

**Table 4.14: Correlation between IBP and CP**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

		IBP	CP
PIBP	Pearson Correlation	1	.424**
	Sig. (2-tailed)		.000
	N	110	110
CP	Pearson Correlation	.424**	1
	Sig. (2-tailed)	.000	
	N	110	110

**Source: Own computation based on data from annual reports of AEMFIs & questionnaire survey (2014)**

The result on table 4.14 shows a moderate positive correlation ( $r=0.424$ ) between IBP and CP. The correlation is also statistically significant at 0.01 level on a 2-tailed test. The result is consistent with the general theory of BSC. Thus, it is safe to accept the H2 hypothesis.

**H3: There is positive correlation between customer perspective and financial perspective.**

Without considering institutional or organizational differences in general literatures on BSC assumed that a better value proposition which satisfy customer drives financial performance. In this study it was hypothesized the same will also holds true in MFIs though the customer perspective incorporates social performance measures which considered by some as having negative effect on financial performance. The issue of balancing social and profitability objective in MFIs is desirable, but empirical evidence to date is mixed. The correlation from this study is as follows: -

**Table 4.15:-Correlation between CP and FP**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

		NFPCP	FP
NFPCP	Pearson Correlation	1	.705**
	Sig. (2-tailed)		.000
	N	110	110
FP	Pearson Correlation	.705**	1
	Sig. (2-tailed)	.000	
	N	110	110

**Source: Own computation based on data from annual reports of AEMFIs & questionnaire survey (2014)**

The correlation between CP and FP in Ethiopian MFIs shown on table 4.15, above is positive and strong, as well significant. This suggests an insight that better value proposition, even with the inclusion of socially desirable products and services which had been considered costlier in the conventional financial sector is positively related with financial performance. The relation hypothesized on the basis of general BSC theory is consistent in MFIs as well. Thus, H3 is accepted.

**H4: There is positive correlation between financial performance (FP) and non-financial performance (NFP).**

**Table 14.16- Correlation between FP and NFP**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

		FP	NFP
FP	Pearson Correlation	1	.571**
	Sig. (2-tailed)		.000
	N	110	110
NFP	Pearson Correlation	.571**	1
	Sig. (2-tailed)	.000	
	N	110	110

**Source: Own computation based on data from annual reports of AEMFIs & questionnaire survey (2014)**

BSC assumed that favorable performance results on non-financial performances would have positive implication on financial performance. The Pearson  $r$  value of + 0.571 indicates a moderate positive correlation between this two perspectives. In other explanation if the financial performance of MFIs has escalation the non-financial perspective also has the same pattern and vice versa. This result of the financial and non-financial performance relation is as expected by the researcher and also similar with previously study (Kipsha 2013b).

Confidence that some relationship exists between the variables being analyzed is reflected by the probability ( $p$ ) value associated with the correlation and If  $p$  is small (conventionally,  $p < .05$ ), then it can be said at least 95% confident that some relationship exists in the studied variables. Likewise if  $p < .01$  then it can be said at least 99% confident that some relationship exists in the studied variables. So in the correlation analysis above the  $p$  value of all the four correlations is .000 which means at least 99% confident that relationship exists in the studied variables. In other words the correlation is significant at 1% level of confidence so, all the null hypotheses are rejected and the alternatives are stay this means there is statistically significant positive relationship between LG and IBP, IBP and CP, CP and FP and finally between FP and NFP.

In summary in this chapter, a balanced scorecard approach performance evaluation framework developed in this study applied to sample MFIs and show the performance of Ethiopian MFIs from the four perspective of BSC. Then the applicability of BSC to Ethiopian MFIs is tested through the hypothesized relationship of the BSC perspectives. The next chapter concludes the study and potential recommendations also provided.

## **CHAPTER FIVE**

### **CONCLUSIONS AND RECOMMENDATIONS**

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*This last part of the study summarizes the findings and gives recommendations based on it and also potential further research areas sighted.*

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#### **5.1 CONCLUSIONS**

The study explored the application of BSC approaches as a performance evaluation tool for Ethiopian MFIs in a ways that performance indicators are viewed in light of their contribution to the achievement of the broad strategy of an MFI, which blends both social and financial objectives and this study confirmed the use of balanced scorecard has high potential in showing a comprehensive performance of MFIs.

The study first reviewed literatures on microfinance performance and BSC approach from strategic management accounting in order to develop a theoretical framework. A total of 20 performance indicators /variables are equally classified under financial perspective, customer perspective, internal business process perspective, and learning and growth, in the developed BSC model for this study. The overall implication on microfinance performance dimensions supposed to link microfinance operation and strategy.

The BSC approach applied in this study is different from previous performance evaluation studies in Ethiopian MFIs. Given that this study consumed multiple data sources and types and also adopted descriptive statistical model that enabled to aggregate results of performance indicators of both financial and non-financial. The findings of the study presented in the forgoing discussions leads to the following conclusions.

The first part, weight allocation to performance perspectives shows higher overall weight given to financial performance than non-financial performances. This shows the experts are in view of the need of more concentration on profitability and sustainability. The lower weight to non-financial perspectives that includes performance indicators related to social objectives, and other non-financial perspectives could also suggest limited awareness on using integrated strategic performance management system like BSC.

The second section of the data analysis presents the descriptive statistics on each performance perspectives and indicators. It is concluded from the result with the exception of Learning and growth perspective which falls under average performance category the rest BSC perspectives falls under high performance category of the used Likert scale even if it didn't mean all the indicators are at the same level of performance. Besides no BSC perspective falls under very high performance category of this study.

From the analysis of each performance indicators it is observed BPLO from internal business process, and AROE from financial perspective have the lowest score as compared to others. Overall score of the three non-financial perspectives also found under the high performance category. Nevertheless, such a high performance contains serious requirements of improvement on some variables/indicators, for the fact there are variability among various indicators.

Relatively similar result obtained on financial perspective and non-financial perspective, which both are found under the range of high performance. This suggested that the institutions under study have managed to strike a balance between outreach and sustainability against the contention on literature that the two are conflicting.

The analysis of association among different performance perspectives confirmed the overall assumption of BSC with regard to relationship among the four BSC perspectives. For the fact statistically significant moderate correlation existed between LG and IBP, IBP and CP and overall FP and NFP. And also CP and FP have statistically significant strong correlation. The positive relationship between overall FP and overall NFP presents an important implication for literature, in which the debate between sustainability and outreach in MFIs remained unsolved.

Though further and comprehensive empirical work is demanding for the fact this study is exploratory and a few previous empirical works existed to compare the finding of the current study, the result suggested the application of BSC in MFIs enabled to have a comprehensive view of performances along with the relationship between each performance perspectives.

## **5.2 RECOMMENDATIONS**

The following recommendations forwarded to different actors in the sector:

- I. BSC is capable of giving comprehensive or holistic picture of performances of MFIs. Therefore, the government (through the regulatory organ) should introduce a system that will enable MFIs operating in the country to use different dimensions of BSC performance measures together with financial performance measures.
- II. The National Bank of Ethiopia and Association of Ethiopian MFIs should support and build the capacity of MFIs towards using BSC in measuring their performance, for example through revising their performance reporting content.
- III. The use of BSC will give the management of any organization a comprehensive view on the financial and non-financial performance. So, the management of MFIs should introduce and study the use of BSC in measuring their respective performance.

- IV. Based on the developed and applied BSC framework, the analysis of each performance perspective are discussed in chapter four and rooted in the highlighted performance scores of each perspective the following recommendations are forwarded.
- A. It appears from the study learning and growth perspective of Ethiopian MFIs needs to be a prime focus, for its positive relationship with internal business process improvement and customer perspective, which the basic objective of the sector. The LG perspective indicators are demanding immense management attention since; LG is the starting point of performance based on BSC. So, Ethiopian MFIs expected to improve the LG perspective performance through offering interesting benefit, motivating employees using consistent and value adding training which can empower them with appropriate performance feedback and reward. And also creating modern (computerized, networked) and innovative work environment could improve the LG perspective.
- B. Likewise some customer related performance indicators, such as percentage change in voluntary saving and percentage change in number of client served (breadth of outreach), amount were under the average score. So, Ethiopian MFIs needs to see their performance with regard to delivering reliable and effective financial service to the poor especially with regard to deposit mobilization.
- C. Similarly, under internal business process, the measured level of borrowers per loan officers was the lowest of all performance indicators, which show the requirements of stimulating employee capacity building and motivation schemes, which could boost staff efficiency. Other options such as enhance modernizing the business process and educating client with micro-finance service process could be helpful.

### **5.3 DIRECTIONS FOR FURTHER RESEARCHS**

- I. This study is exploratory in its nature and given that no previous studies tried to apply BSC approach in evaluating performance of Ethiopia MFIs, the researcher recommends studies focused on advancing the developed BSC performance evaluation framework in the context of Ethiopian microfinance industry.
- II. The current study measured the attitude and opinion of clients, staffs and management at the head offices level of selected MFIs with the objective of showing the performance of the studied MFIs in generalized way than individual institution level, but further studies that incorporate branches operating both in urban and rural areas, clients from different economic level, and deep investigation to a single institution could find out better result in which institutions could see their own performance rather than the generalized result.
- III. MFIs in Ethiopia are different in their ownership and size. From the current reality the higher market share is controlled by quite small number of MFIs out of 31 MFIs. Besides, the research observed that, there is high variability on some performance indicators. So, the effect of ownership, size and other institution specific factors, not considered in the current study, may explain such variation. Hence, considering such factor could help in identifying the major concern with respect to each institution.

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# APPENDICES

# Appendix 1: Questionnaire to the Experts of NBE MF supervision department and AEMFI

Addis Ababa University

College of Business and Economics

Department of Accounting and Finance

Dear participants this questioner is intended to conduct a research on the “**Performance of Selected Microfinance Institutions in Ethiopia: A Balanced Scorecard Approach**” for the partial fulfillment of MSc. degree in Accounting and Finance in Addis Ababa University. Firstly, I want to assure you the information you will provide in this questioner will not be utilized for any other purpose and its confidentiality will be maintained surly so, keep in mind this I ask you to feelfree in reflecting on the issues raised. The respondents requested to give weights to both financial and non-financial perspective and sub weight for each performance indicators in each category based on their understanding, measurement and experience that MFIs should perform.

If there is any uncertainty regarding any questions or issues please feel free to contact me using the details below:-

Email:-[eyerusalemkbd@gmail.com](mailto:eyerusalemkbd@gmail.com)

## Section 1: Respondent Background

1 Gender: - Female  Male

2 Academic level:-

Master’s degree and above

Bachelors’ degree

Technical/vocational certificate (diploma)

Secondary school complete

3 Work experience

Less than 5 years  6 to 10 years

More than 10 years

**Section 2:-** In this section each of the performance dimensions is subdivided into five performance indicators making a total of 20 performance metrics and respondents are expected to divided 100% to financial and non-financial performance and also 100% to each five performance metrics in each category.

<b>BSC perspective</b>	<b>Performance Indicator</b>	<b>Sub weight (%)</b>
<b>Financial Performance</b> (..... %)	Adjusted Return on Asset (AROA)	(..... %)
	Adjusted Return on Asset (AROE)	(..... %)
	Operating Self Sufficiency (OSS)	(..... %)
	Portfolio at risk > 30 days (PaR)	(..... %)
	Ratio of Operating Expense to Loan (ROEL)	(..... %)
<b>Non-financial performance (..... %)</b>		
<b>Customer Perspective</b> (..... %)	Percentage Change of Number of Clients (PCNC)	(..... %)
	Percentages of Women Borrowers(PWB)	(..... %)
	Percentage Change of Voluntary Saving (PCVS)	(..... %)
	Customer Satisfaction(CS)	(..... %)
	Clear Social Objective (CSO)	(..... %)
<b>Internal Business process</b> (..... %)	Borrowers Per Loan officers (BPLO)	(..... %)
	Clear Institutional Strategy (CIS)	(..... %)
	Duration of Loan Application Processing (DLAP)	(..... %)
	Research and development (R&D)	(..... %)
	Report to AEMFI, MIX Market Inc. (RE)	(..... %)
<b>Learning and Growth</b> (..... %)	Employee Satisfaction (ES)	(..... %)
	Employee Training (ET)	(..... %)
	Performance Feedback(PF)	(..... %)
	Investment in Information System (IIS)	(..... %)
	Innovation(I)	(..... %)

**Section 3:-** In this section respondents expected to set percentile classification for each ratio in order to express it using 5 scales Likert. The representations of the numbers are as follows:-

4 = Very high performance    4= High performance    3 = Average performance  
 2 = Low performance    1 = Very low performance

	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
AROA	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
AROE	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
OSS	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
PaR>30 Days	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
ROEL	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
PCNC/B	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
PWB	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
PCVS	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%	When it's from .....% to.....%
BPLO	When it's from .....to.....	When it's from ..... to.....	When it's from ..... to.....	When it's from ..... to.....	When it's from .....to.....

**AROA** = Adjusted Return on Asset

**PCNC/B**=Percentage Change of Number of Clients/Borrowers

**AROE**=Adjusted Return on Equity

**PWB**=Percentage of Women Borrowers

**OSS** = Operational Self Sufficiency

**PCVS**=Percentage Change of Voluntary Saving

**PAR**=Portfolio at risk > 30 days

**BPLO** = Borrowers per Loan Officers

**ROEL**=Ratio of Operating Expense to Loan

Note: respondent didn't expect to reply for the shaded indicators of section three.

## Appendix 2: Questionnaire to the Staff of Selected MFIs

Addis Ababa University

College of Business and Economics

Department of Accounting and Finance

Dear participant this questioner is intended to conduct a research on the “**Performance of Selected Microfinance Institutions in Ethiopian: A Balanced Scorecard Approach**” for the partial fulfillment of MSc. degree in Accounting and Finance in Addis Ababa University. Firstly, I want to assure you the information you will provide in this questioner will not be utilized for any other purpose and its confidentiality will be maintained surely so, keep in mind this I ask you to be honest as much as possible in reflecting on the issues raised. The staffs of each MFI requested to evaluate the performance of his/her institutions with respect to the developed questions below.

If there is any uncertainty regarding any questions or issues please feel free to contact me using the details below:-

Email: [eyerusalemkdb@gmail.com](mailto:eyerusalemkdb@gmail.com)

**Thank you in advance for your cooperation!**

### Section 1: Demographic background

1. Gender: Female  Male

2. Academic level

Masters degree and above

Bachelors“ degree

Technical/vocational certificate (diploma)

High school complete

3. Work experience

Less than 5 years

6 to 10 years

More than 10 years

## Section 2

You are expected to put sign on the performance level that your institution achieves in each perspective. Where: - 5= strongly agree      2= disagree      3= don't know/not sure

4= agree                      1= strongly disagree

1.1	This institution has clearly identified clients like small enterprises, women, unemployed youth, fresh graduate and the like.....					
1.2	This institution helps clients to improve their economical capacity through training and by providing helpful comments on their loan proposal.					
1.3	This institution assesses and evaluates the positive impact that can add to its clients.					
2.1	This institution has clear short and long term plan.					
2.2	The plan of the institution is cascaded to all departments and it allows employees to understand their own mandates.					
2.3	The plan of the institution includes the measurements of the implementation of the plan.					
3	Duration of loan application processing is reasonable and it didn't dissatisfy clients.					
4.1	This institution has research and development/ similar task oriented department.					
4.2	This institution conducts demand or market survey.					
4.3	This institution conducts client satisfaction survey.					
5	This institution provides timely, clear and inclusive performance report to AEMFI, NBE and MIX or others.					
6.1	As an employee of this institution I am satisfied with my salary and other benefits that I have.					
6.2	I am not exposed to overloaded duties in my positions and it makes me to do my job effectively with pleasure.					
6.3	Good governance of the institution, team work, and the availabilities of all necessary input makes me to adore my job.					

7	Continuous and value adding an employee training is the culture of the institution.				
8.1	Consistent evaluation and performance feedback are the culture of the institution.				
8.2	High performance achievers rewarded for their performance.				
8.3	Constructive comments give to low performance achievers.				
9.1	This institution is computerized in its service.				
9.2	Anyone can get basic information of the institution from internet.				
9.3	The institution gives focus to investment in information system just like investment in other areas.				
10.1	The services of the institution expanded through time.				
10.2	There is innovation and creation on the process of service giving.				
10.3	The culture of the institution motivates innovation.				

Appendix 3: Questionnaire to the Staff of Selected MFIs (Amharic version)

አዲስ አበባ ዩኒቨርሲቲ  
ቢዝነስና ኢኮኖሚክስ ኮሌጅ  
አካውንቲንግና ፋይናንስ ት/ክፍል

ለተቋሙ ሰራተኞች የተዘጋጀ የጽሁፍ መጠይቅ

በቅድሚያ ለሚያደርጉልኝ ቀና ትብብርና ለሚሰጡኝ ትክክለኛ ምላሽ እያመሰገንኩኝ ይህ ለአካውንቲንግና ፋይናንስ ማስትሬት ድግሪ ማሟያ የሚዛናዊ ውጤት ተኮር አሰራርን በመጠቀም የአነስተኛ ቁጠባና ብድር ተቋማት የስራ አፈጻጸም ምን ይመስላል (Performance of Selected Microfinance Institutions in Ethiopian: A Balanced Scorecard Approach) በሚል ርዕስ ሊሰራ ለታሰበው የምርምር ጽሁፍ የሚሰበሰብ ግብአት ነው። በዚህ መጠይቅ ላይ የሚሰጡት መረጃ ለሌላ ለምንም አይነት አገልግሎት የማይወልድ ሚስጥራዊነቱ የተጠበቀ መሆኑን ለማረጋገጥ እወዳለሁ።

እኔን ማግኘት ቢያስፈልጎኝ ከዚህ በታች የተገለጸውን አድራሻዬን መጠቀም ይችላሉ።

እየሩሳሌም ከበደ [eyerusalemkbd@gmail.com](mailto:eyerusalemkbd@gmail.com)

ክፍል:- 1

1. ጾታ:- ሴት  ወንድ

2. የትምህርት ደረጃ:-

ሁለተኛ ዲግሪና ከዛ በላይ

የመጀመሪያ ዲግሪ

ዲፕሎማ

ሁለተኛ ደረጃ ያጠናቀቀ

3. የስራ ልምድ

ከ5 አመት በታች  ከ5-10 አመት  ከ10 አመት በላይ

## ክፍል:- 2

ይህ የጥያቄ ክፍል እርሶ የሚሰሩበትን ተቋም የስራ አፈጻጸም እንዲገመገሙ የሚጠይቅ ሲሆን ባመኑበት የአፈጻጸም ደረጃ ላይ ምልክት ያድርጉ። የቁጥሮቹም አወካከል እንደሚከተለው ይሆናል፡-

- 5 = በጣም እስማማለሁ      3 = በከፊል እስማማለሁ በከፊል አልስማማም  
 4 = እስማማለሁ                      2 = አልስማማም      1 = በጣም አልስማማም

	የብቃት ማሳያዎች/ተግባሮች	5	4	3	2	1
1.1	ተቋሙ በግልጽ የተለዩ ተገላጋዮችን አልሞ ይሰራል (ለምሳሌ አነስተኛና ጥቃቅን ተቋማትን፣ ሴቶችን፣ ስራ አጥ ወጣቶችን፣ አዲስ ተመራቂዎችን.....)					
1.2	ተቋሙ ተገላጋዮቹ የኢኮኖሚ አቅማቸውን ማሻሻል እንዲችሉ ያግዛቸዋል(ለምሳሌ ስልጠናዎችን በማዘጋጀት፣ የብድር መጠየቂያ እቅዶቻቸው ላይ ሙያዊ አስተያየት በመስጠት )					
1.3	ተቋሙ በተገላጋዮቹ ላይ መፍጠር የቻለውን አወነታዊ ለውጥ ይገመግማል፣ ይለካል።					
2.1	ተቋሙ ግልጽ የሆነ የአጭርና እረጃም ጊዜ እቅድ አለው።					
2.2	የተቋሙ እቅድ በየስራ ክፍሉ የተከፋፈለና ሰራተኞች ስራቸውን በግልጽ እንዲያወቁ የሚያደርግ ነው።					
2.3	የተቋሙ እቅድ የእቅዱን አፈጻጸም መለኪያ ያካተተ ነው።					
3	የብድር አገልግሎት ለማግኘት የሚወስደው ጊዜ ተመጣጣኝና አግባብነት ያለው ነው ተገላጋዮችንም አያገላለግም።					
4.1	ተቋሙ የጥናትና ምርምር ወይም ከጥናትና ምርምር ክፍል ጋር ተመሳሳይነት ያለው ስራ የሚሰራ ክፍል አለው።					
4.2	ተቋሙ የገበያ/ የተገላጋዮች የፍላጎት ጥናት ያካሄዳል።					
4.3	ተቋሙ የተገላጋዮች የእርካታ ማያ ጥናት ያካሂዳል።					
5	ተቋሙ ወቅቱን የጠበቀና ሁሉንም መረጃዎች የያዘ የስራ አፈጻጸም ለአነስተኛ ብድርና ቁጠባ ተቋማት ማህበር፣ ለሚመለከተው የመንግስት አካል፣ እንዲሁም ለ mix market Inc. ያቀርባል።					
6.1	በተቋሙ በሚከፈለኝ የአገልግሎት ክፍያ(ደመወዝ) እና ጥቅማጥቅም ደስተኛ ነኝ					

	ወይም እረክቻለሁ።					
6.2	ተቋሙ ወስጥ ባለሁበት የስራ መደብ ላይ ከአቅማቸው በላይ የሆነ የስራ ጫና የለብኝም ይህም ስራዬን በአግባቡና ደስተኛ ሆኜ እንድሰራ አስችሎኛል።					
6.3	በተቋሙ ያለው መልካም አስተዳደር፣ የህብረት ስራና በቂ የግብአት አቅርቦት የስራ ቦታዬን እንድወደው የሚያደርግ ነው።					
7	የስራተኞችን ዕውቀትና ብቃት የሚያሻሽል ቀጣይነት ያለው የስራተኞች ስልጠና በተቋሙ ወስጥ የተለመደ ነው።					
8.1	የስራተኞች የስራ አፈጻጸም ቋሚነት ባለው መልኩ ይገመገማል፣ አስተያየት ይሰጣል እራሳቸውን እንዲገመገሙም ይደረጋል።					
8.2	ዝቅተኛ የስራ አፈጻጸም ላስመዘገቡ ሰራተኞች የማሻሻያ ሃሳብ ይሰጣል።					
8.3	ጥሩ የስራ አፈጻጸም ላስመዘገቡ ሰራተኞች እውቅና እና ሽልማት ይሰጣል።					
9.1	ተቋሙ አገልግሎቱን በኮምፒውተር በመታገዝ ይሰጣል።					
9.2	ስለ ተቋሙ መሰረታዊ መረጃዎችን ከ internet ማግኘት ይቻላል።					
9.3	ተቋሙ የመረጃ መረብን ለመዘርጋት፣ ለማሻሻልና ዘመናዊ ለማድረግ ተገቢውንና በቂ ወጪ ያደርጋል።					
10.1	በየግዜው በተቋሙ ወስጥ አዳዲስ አገልግሎቶች ይስፋፋ/ይሰጣሉ።					
10.2	አገልግሎትን የሚያቀላጥፉ የአሰራር ስልቶች ይፈጠራሉ፣ ይሻሻላሉ፣ ይተገበራሉ።					
10.3	የተቋሙ የስራ ባህልና አስተዳደር ፈጠራን የሚያበረታታ ነው።					

## **Appendix 4: Customer Satisfaction Requisite Questionnaire**

**Addis Ababa University**

**College of Business and Economics**

**Department of Accounting and Finance**

Dear participant this questioner is intended to conduct a research on the “**Performance of Selected Microfinance Institutions in Ethiopia: A Balanced Scorecard Approach**” for the partial fulfillment of MSc. degree in Accounting and Finance in Addis Ababa University. Firstly, I want to assure you the information you will provide in this questioner will not be utilized for any other purpose and its confidentiality will be maintained surely so, keep in mind this I ask you to be honest as much as possible in reflecting on the issues raised. The selected customers of each MFI requested to put sign on each questions.

**Thank you for your cooperation!!!!**

Respondents requested to put sign on the box of their choice.

**Where:-5= strongly agree**

4= agree

3= neutral

2= disagree

1=strongly disagree

	Performance Indicators/ practices	5	4	3	2	1
1	The location of this institution is convenient to get the service easily.					
2	The level of bureaucracy that exists in this institution to get service is simple and applicable.					
3	The duration of loan application processing is reasonable and didn't discomfort me.					
4	The employees of the institution approach me as a friend and they positive and cooperate.					
5	This institution provide collateral free micro credit that I can't get from other financial institution					
6	The interest rate that this institution charged me on my loan is fair.					
7	The repayment period that this institution gives me is reasonable.					
8	The group lending system of this institution is comfortable for me.					
9	This institution gives fair interest on my deposit.					
10	In general the service of this institution helps me to improve my financial capacity.					

Appendix 5: Customer Satisfaction Requisite Questionnaire (Amharic version)

አዲስ አበባ ዩኒቨርሲቲ

ቢዝነስና ኢኮኖሚክስ ኮሌጅ

አካውንቲንግና ፋይናንስ ት/ክፍል

ለተቋሙ ተገላጋዪች የተዘጋጀ የጽሁፍ መጠይቅ

በቅድሚያ ለሚያደርጉልኝ ቀና ትብብርና ለሚሰጡኝ ትክክለኛ ምላሽ እያመሰገንኩኝ ይህ ለአካውንቲንግ ና ፋይናንስ ማስትሬት ድግሪ ማሟያ የሚሳናዊ ወጤት ተኮር አሰራርን በመጠቀም የአነስተኛ ቁጠባና ብድር ተቋማት የስራ አፈጻጸም ምን ይመስላል (Performance of Selected Microfinance Institutions in Ethiopian: A Balanced Scorecard Approach) በሚል ርዕስ ሊሰራ ለታሰበው የምርምር ጽሁፍ የሚሰበሰብ ግብአት ነው። በዚህ መጠይቅ ላይ የሚሰጡት መረጃ ለሌላ ለምንም አይነት አገልግሎት የማይወልድ ሚስጥራዊነቱ የተጠበቀ መሆኑን ለማረጋገጥ እወዳለሁ።

ክፍል:- 1

1. ጾታ:- ሴት  ወንድ

2. የትምህርት ደረጃ:-

የመጀመሪያ ዲግሪና ከዛ በላይድግሪ

ዲፕሎማ

ሁለተኛ ደረጃ ያጠናቀቀ

የመጀመሪያ ደረጃ የጠናቀቀ

መደበኛ ትምህርተ ያልተማረ

3. በተቋሙ ለምን ያህል ጊዜ ተገልግልዋል ?

ከ 5አመት በታች

ከ 6-10 አመት

ከ 10 አመት በላይ

**ክፍል:- 2**

ይህ የጥያቄ ክፍል እርሶ በተቋሙ በሚያገኙት አገልግሎት ምን ያህል ደስተኛ እንደሆኑ ለመገምገም የተዘጋጀ ሲሆን ባመኑበት የአፈጻጸም ደረጃ ላይ ምልክት ያድርጉ። የቁጥሮቹም አወካከል እንደሚከተለው ይሆናል፡-

- 5 = በጣም እስማማለሁ
- 4 = እስማማለሁ
- 3 = በከፊል እስማማለሁ በከፊል አልስማማም
- 2 = አልስማማም
- 1 = በጣም አልስማማም

	ዕይታዎች	5	4	3	2	1
1	ተቋሙ ያለበት ቦታና አካባቢ አገልግሎቱን ለማግኘት የሚያስችልና አመቺ ነው።					
2	አገልግሎቱን ለማግኘት በተቋሙ ውስጥ ያለው የቅድመ ሁኔታ ወይም አስተዳደር ለመከተል ቀላልና ግልፅ ነው።					
3	ከተቋሙ ብድር ለማግኘት የሚወስደው ጊዜ አግባብነት ያለው ነው ወይም አያገባላም ።					
4	የተቋሙ ሰራተኞች ጋደኛዊ አቀራረብ አላቸው፣ የምንጠይቀውን አገልግሎት ለመስጠት ተባባሪና ቀና ናቸው።					
5	ተቋሙ ከሌሎች ተቋማት ማግኘት ያልቻልኩትን ከማስያዘያ ነጻ የሆነ አነስተኛ ብድር ይሰጠኛል በዚህም ደስተኛ ነኝ።					
6	ተቋሙ በሰጠኝ ብድር ላይ የሚጠይቀኝ ወለድ አግባብነት ያለው ነው።					
7	ተቋሙ የሰጠኝን ብድር ለመመለስ በቂ ጊዜ ይሰጠኛል።					
8	የተቋሙ የተቀናጀ ወይም በቡድን የማበደር ስርአት ለኔ አመቺ ነው።					
9	በተቋሙ ላለኝ ተቀማጭ ተቋሙ በሚያስብልኝ የወለድ መጠን ደስተኛ ነኝ።					
10	በአጠቃላይ ሲታይ ተቋሙ የሚሰጠኝ አገልግሎት የገንዘብ አቅማን እንዳሻሽል እረድቶኛል ።					

## Appendix 6: Raw data used

Adjusted Return On Asset								
year	ADCSI	AVFS	BUSSA GONOFAA	METEMAMEN	OCSSCO	SFPI	AGAR	HARBU
2007	-8%	-6%	-0.80%	-15%	1%	-9%	-14%	-6%
2008	4%	1%	7%	0%	4%	3%	1%	0%
2009	3%	3%	7%	-1%	3%	1%	2%	0%
2010	4%	-2%	7%	-2%	3%	7%	5%	1%
2011	3.10%	-	14.10%	0.50%	5.40%	6.80%	8.10%	11.60%
2012	3.40%	3.20%	23.00%	0.60%	6.50%	7.60%	8.90%	12.00%
Adjusted Return On Equity								
2007	-11%	-6%	-2.00%	-18%	2%	-23%	-22%	-20%
2008	6%	-40%	16%	0%	17%	6%	3%	1%
2009	4%	3%	15%	-2%	14%	1%	9%	1%
2010	6%	-3%	15%	-2%	14%	15%	18%	2%
2011	6.30%	-	26.80%	0.70%	20.70%	14.70%	28.50%	22.40%
2012	7.80%	5.80%	49.40%	1.00%	22.50%	17.80%	34.50%	1.90%
Operational Self Sufficiency								
2007	156%	126%	130%	83%	166%	111%	82%	91%
2008	192%	106%	145%	102%	153%	119%	108%	103%
2009	177%	105%	145%	116%	195%	120%	123%	101%
2010	195%	81%	147%	62%	145%	161%	133%	0%
2011	166%	82%	159%	85%	160%	143%	155%	211%
2012	141%	125%	151%	99%	205%	129%	173%	104%
PaR > 30 days								
2007	na	5%	1%	4%	na	2%	na	0.90%
2008	3%	10%	2%	9%	3%	4%	2%	2%
2009	4%	9%	2%	11%	7%	3%	5%	3%
2010	5%	4%	2%	12%	5%	3%	8%	5%
2011	3.78%	7.39%	0.68%	12.83%	3.52%	5.99%	9.26%	0.43%
2012	2.50%	9.50%	0.60%	4.60%	3.20%	2.70%	7.50%	3.30%

Ratio of operating expense to loan								
year	ADCSI	AVFS	BUSSA GONOFAA	METEMAMEN	OCSSCO	SFPI	AGAR	HARBU
2007	5%	18%	25%	26%	6%	13%	31%	21%
2008	4%	14%	18%	18%	4%	12%	25%	15%
2009	3%	18%	15%	17%	5%	16%	17%	17%
2010	3%	27%	16%	5%	5%	7%	12%	7%
2011	3.38%	26.78%	12.59%	18.93%	5.02%	13.09%	12.23%	10.50%
2012	4.50%	22.20%	15.90%	15.70%	4.50%	12.20%	9.60%	9.30%
Percentage of woman borrowers								
2007	42%	55%	75%	74%	26%	54%	31%	46%
2008	57%	60%	78%	96%	25%	55%	32%	75%
2009	45%	74%	72%	77%	39%	53%	28%	70%
2010	54%	76%	79%	76%	31%	56%	29%	68%
2011	55%	75%	80%	76%	35%	56%	29%	65%
2012	48%	75%	71%	77%	38%	53%	28%	65%
Borrowers per loan officers								
2007	740	347	427	426	422	434	250	258
2008	248	323	463	403	593	453	268	300
2009	418	323	502	544	536	468	337	299
2010	297	478	376	587	672	439	337	416
2011	269	511	561	390	631	413	280	301
2012	296	353	427	390	653	532	346	377

Number of client								
2006	54920	7744	31150	na	181403	19856	na	Na
2007	91,500	9,016	31,150	10,638	263,971	23,462	1,998	10,059
2008	87,180	11,306	38,921	10,475	414,823	28,113	2,948	11,713
2009	152,260	11,306	42,146	14,154	364,584	29,044	3,707	12,541
2010	160,550	15,772	37,952	14,098	458,762	31,157	4,377	17,455
2011	156,148	17,359	52,145	10,541	502,540	33,335	5,877	15,753
2012	187,925	13,758	55,455	12,318	516,382	34,573	8,303	24,096
Voluntary saving								
2006	16,342,013	359,542	na	na	11,548,706	891913	na	na
2007	3,094,726	2,380,230	na	na	26,980,505	1,188,366	979,763	2,102,146
2008	25,005,078	678,293	na	na	75,662,306	1,727,128	1,112,373	2,781,724
2009	32,575,541	984,662	na	na	97,992,729	2,400,708	1,347,090	3,145,703
2010	63,380,000	753,361	na	3,900	172,898,418	2,687,303	1,761,843	3,091,995
2011	114,361,000	753,361	1,373,946	65,791	332,800,856	3,429,885	9,072,130	4,570,151
2012	203,176,730	756,531	2,370,989	365,436	780,554,322	4,794,513	18,514,693	5,377,229

Note: "na" means not available

## Appendix 7: Benchmarks to Change Ratios and Numbers to Likert 5 Scale

	5	4	3	2	1
AROA	When it's >3%	When it's from 2% to 3%	When it's from 1% to 1.9%	When it's from 0% to 0.99%	When it's <0%
AROE	When it's >20%	when it's from 15%-20%	When it's from 10% to 14%	When it's from 0% to 9%	When it's <0%
OSS	When it's >130%	When it's from 120% to 129%	When it's from 100% to 119%	When it's from 90% to 99%	When it's from 0% to 89%
ROEL	When it's from 0% to 20%	When it's from 21% to 25%	When it's from 26% to 30%	When it's from 31% to 40%	When it's >41%
PaR>30 Days	When it's from 0% to 3%	When it's from 3.1% to 6%	When it's from 6.1% to 9%	When it's from 9.1% to 12%	When it's >12%
PCNC/B	When it's from 20% to 30%	When it's from 15% to 19%	When it's from 10% to 14%	When it's from 5% to 9%	When it's <5%
PWB	When it's > 45%	When it's from 45% to 40%	When it's from 39% to 35%	When it's from 34% to 30%	When it's < 30%
PCVS	When it's from 35% to 30%	When it's from 29% to 25%	When it's from 24% to 15%	When it's from 4% to 14%	When it's <4%
BPLO	When it's from 800 to 700	When it's from 699 to 600	When it's from 599 to 500	When it's from 499 to 400	When it's <400

### Appendix 8: Basic information of the studied MFIs

Microfinance Institutions	Year of Establishment	Loans Outstanding	Total saving	Total asset	Total Liability	Total Capital
Oromia Credit & Savings Institution S.C	1997	3,431,709,695	2,155,099,003	4,566,081,061	3,662,085,302	903,995,759
Specialized Financial & Promotional Institution S.C	1997	122,487,624	42,242,756	163,999,941	100,921,241	63,078,700
Africa Village Financial Services S.C	1998	17,059,976	6,254,916	25,779,130	14,723,525	11,055,604
Buussa Gonofa Microfinance S.C	1999	161,153,151	29,418,511	190,962,805	116,403,864	74,558,941
Addis Credit and Savings Institution S.C	2000	1,593,977,367	1,204,448,000	2,183,621,000	1,635,510,000	548,111,000
Metemamen Microfinance Institution S.C	2001	53,351,094	19,704,141	75,036,926	43,805,896	31,231,031
Agar Microfinance Institution S.C	2004	81,818,637	39,276,439	102,402,705	63,693,736	38,708,969
Harbu Microfinance Institution S.C	2005	42,649,457	19,482,626	62,653,262	41,100,040	21,553,222

Source: Association of Ethiopian microfinance institutions (2014)