Effects of Corporate Governance on the financial performance of Micro-Finance Institutions in Ethiopia

A Thesis submitted to Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of
Masters in Accounting and Finance

BY

Eyob Melkamu

Department of Accounting and Finance
College of Business and economics
Addis Ababa University

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Addis Ababa, Ethiopia

STATEMENT OF DECLARATION

I, Eyob Melkamu, declare that this study entitled "Effects of Corporate Governance on the financial performance of Micro-finance Institutions in Ethiopia" is my own work. I have carried out this research independently with the guidance and support of the research advisor. This study has not been submitted to any degree/diploma in this or any other institution and it is done in partial requirement of Master of Science in Accounting and Finance.

Eyob Melkamu: _____

January 2016

Addis Ababa University

School of Graduate Studies

This is to certify that this thesis, prepared by Eyob Melkamu, entitled "Effects of Corporate Governance on Financial Performance of Microfinance Institutions in Ethiopia" submitted in partial fulfillment of the requirements for the award of Master of Science in Accounting and Finance complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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Internal Examiner: Laxmikantham P. (PhD) Signature: _____ D a t e: _____

External Examiner: Arega Seyum (PhD) Signature: _____D a t e: _____

Advisor: Habtamu Berhanu (PhD) Signature: _____ D a t e: _____

Abstract

Studies have shown that good corporate governance (CG) have led to significant increases in economic value added of firms, higher productivity, and lower risk of systemic financial failures for countries. On top of this the purpose of this study is to analyze effects of corporate governance mechanisms on the performance of Ethiopian MFIs. From the total of 34 MFIs which are operating in the country, five MFIs have been selected for the study by way of a purposive sampling technique and six corporate governance variables (board size, educational qualification of boards, audit committee size, board gender diversity, business management experience of boards and industry specific experience of boards) have been used for the study. On the other hand, financial performance was measured using two variables (return on asset and return on equity). The study also used leverage, growth and capital adequacy ratio of MFIs as control variables. The effect of CG examined by using panel data from year 2005 to year 2014 gathered from the audited financial statements of five sample MFIs and the study used quantitative research approach. Secondary financial data were analyzed by using multiple linear regression models for two profitability measures (ROE and ROA).The empirical result shows board size, gender diversity and size of audit committee have negative and significant relationship with performance of MFIs while industry specific experience and educational qualification of the board have positive relationship; and the effect of business management experience of directors on performance is inconclusive. Based on the result of the study, it is recommended that board and audit committee sizes should be kept low. Gender diversity of the board should also be maintained and attention should be given for the capacity development of women.

Keywords: Corporate Governance Mechanisms, Agency Theory, Financial Performance, MFIs

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List of Acronyms and Abbreviations

ACCA	Association of Chartered Certified Accountants
AEMFI	Association of Ethiopian microfinance institutions
CEO	Chief Executive Officer
CG	Corporate Governance
CAR	Capital Adequacy Ratio
MFI	Micro Finance Institutions
MFIACSZ	Microfinance Institutions' Audit committee size
MFIGD	Microfinance Institutions' Gender Diversity
MFILEV	Microfinance Institutions' Leverage
BBME	Board members Business Management Experience
BEQ	Board members Educational Qualification
MFIBSZ	Microfinance Institutions' Board Size
BIE	Board members industry specific experience
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Square
NGOs	Non-Governmental Organizations
ROA	Return on Asset
ROE	Return on Equity
SMEs	Small and Medium Sized Enterprises

CHAPTER ONE

INTRODUCTION

The first chapter of the study gives brief background information about the concept of corporate governance. It also discusses the study's problem statement, hypothesis, objective, research question, significance and scope and limitation of the study.

1.1. Background

According to the UK Corporate Governance Code, 2012, corporate governance (CG) has been defined as the system by which organizations are directed and controlled. Good corporate governance maximizes the profitability and long term value of the firm for shareholders. It is also defined by Organization for Economic Cooperation and Development (OECD, 2004) as a set of relationships between a company's directors, its shareholders and other stakeholders. As per OECD, corporate governance also provides the structure through which the objectives of the company are set, and the means of achieving those objectives and monitoring performance are determined. Jensen (1993) also defines Corporate Governance as the top-level control structure, consisting of the decision rights possessed by the board of directors and the Chief Executive Officer (CEO), the procedures for changing them, the size and membership of the board, and the compensation and equity holdings of managers and the board. However, this definition is prone to criticism due to the fact that it doesn't recognize other most important players of CG such as finance providers, suppliers and most importantly the public at large (ACCA, Paper P1).

Corporate governance has become a popular discussion topic in developed and developing countries. The widely held view that corporate governance determines firm

performance and protects the interests of shareholders has led to increasing global attention. However, the way in which corporate governance is organized differs between countries, depending on the economic, political and social contexts. For example, firms in developed countries have dispersed shareholders and operate within stable political and financial systems, well developed regulatory frameworks and effective corporate governance practices. However, firms that operate in developing countries such as Ethiopia may be affected by weak regulatory and institutional framework (Tilahun and Kibre 2007).

Corporate governance is an issue for all corporate bodies, commercial firms and not-For-Profit organizations. In terms of their governance structure, there are certain ways in which companies might differ from other types of organizations such as their ownership, their mission, and the legal or regulatory environment within which they operate. For instance, public sector organizations are organizations whose governance is controlled by one or more parts of the state. Their objectives are often to implement government policies and programs. Others may be incorporated by multinational companies or non-governmental organizations (NGOs) to achieve a certain objective. MFIs operating in Ethiopia are also characterized by different ownership styles; some are owned by government and others are owned by private owners and NGOs.

1.2. Major issues in corporate governance

1.2.1. Duties of Directors'

The corporate governance reports Such as the UK Corporate Governance Code, 2012,have aimed to build on directors' duties as defined in different statute and case laws. These include the fiduciary duties to act in the best interests of the company, use their powers for a proper purpose, avoid conflicts of interest and exercise duty of care (ACCA, Paper P1).

1.2.2. Composition and balance of the board

A feature of many corporate governance scandals (for instance; Enron Scandal 2001, WorldCom Scandal 2002 and Lehman brothers Scandal 2008, all in US) has been boards dominated by a single senior executive. Sometimes the single individual may bypass the board to implement his/her own interests. Even if an organization is not dominated by a single individual, there may be other weaknesses in the board composition. The organization may be run by a small group centered round the chief executive and the chief finance officer, and appointments may be made by personal recommendations rather than a formal objective process (ACCA, Paper P1). In this regard, it is highly recommended that the board needs to be balanced in terms of age, educational qualification, industry specific experience and gender to bring dynamism to the organization.

1.2.3. Reliability of financial reporting and external auditors

Issues concerning financial reporting and auditing are seen by many investors as crucial because of their central importance in ensuring management accountability. They have been the focus of much debate and litigation. Whilst focusing the corporate governance debate solely on accounting and reporting issue is inadequate, the greater regulation of practices such as off-balance sheet financing has led to greater transparency and a reduction in risks faced by investors. (ACCA, Paper P1).The major limitation here is that external auditors may not carry out the necessary questioning of senior management because of fear of losing the audit and internal auditors may not ask embarrassing questions because usually the chief financial officer determines their employment prospects. These are clear indicators for the need of corporate governance generally and establishment of board of directors, particularly.

1.2.4. Directors' remuneration and rewards

For a large number of years, directors' being paid excessive salaries and bonuses has been seen as one of the major corporate abuses. Consequently, most of the corporate governance codes in many countries targeted this issue.

1.2.5. Rights and responsibilities of shareholders under corporate governance

Under the corporate governance principle, shareholders need to have the right to receive all material information that may affect the value of their investment and to vote on measures affecting the organization's performance and governance structure.

1.2.6. Corporate social responsibility and business ethics

The lack of consensus about the issues for which businesses are responsible and the stakeholders to whom they are responsible has inevitably made corporate social responsibility and business ethics an important part of the corporate governance debate. In this regard the South African king report on corporate governance commented that the relationship between a company and its stakeholders should be mutually beneficial. This inclusive approach is the way to create sustained business success and steady long-term growth in corporate value. The UK's Hampel report on corporate governance however emphasized responsibility towards shareholders and states that it is impractical for boards to be given lots of responsibilities towards the wider stakeholder community (ACCA, Paper P1).

1.3. Statement of the Problem

The subject of corporate governance is a relatively new discipline and has attracted worldwide attention because of its apparent importance for strategic health of organizations and society in general (Jackson, 2007). Basically corporate governance is all about running an organization in a way that guarantees its owners or stockholders receive a fair return on their investment, while the expectations of other stakeholders are also met (Magdi & Nedareh, 2002). It addresses the need for organizational stewards or managers to act in the best interest of the firm's core stakeholders, particularly, minority shareholders or investors, by ensuring that only actions that facilitate delivery of optimum returns and other favorable outcomes are taken at all times (Joe Duke II et. al. 2011).

The main responsibility for corporate governance rests with the Board of Directors of a firm and the board's responsibilities include setting the company's strategic goals, providing leadership towards putting the set goals into effect, supervising the management of the firm and reporting to shareholders on their stewardship. It also sets financial policy and oversees its implementation, using internal controls systems. Consequently, establishment of CG for an organization has a direct impact on its performance. Microfinance institutions, which are the focus of this paper, are expanding and growing faster in many parts of the world, especially in developing countries like Ethiopia and are becoming the backbone of many small and medium sized enterprises (SMEs) and poor people by financing their rapidly growing financing needs (Bitok, Stephen Kosgei, et al., 2014).

Even though many studies have been conducted to identify the relationship between corporate governance practices and firm performance in different sectors, there are limited studies conducted in the microfinance sector and the empirical analysis of good corporate governance practices in relation to MFIs is still at an immature stage and this justifies a need to conduct more studies in this field to enhance MFIs' development.

According to Antis Campion and Cheryl Frankiewicz (1999), as the field of micro finance continues to grow and develop, the issue of governance is receiving increased attention, and the role of effective governance is assuming even greater importance. Accordingly, the following micro finance trends reflect the need for enhanced governance.

- MFI's around the world are expanding their outreach and assuming responsibility for increasingly large sums of money, challenging the capacity of their management to maintain high standards of performance, and necessitating increased input and investment by the board to ensure effective management.
- An increasing number of MFIs are becoming regulated, assuming the responsibilities and challenges of any regulated entity. Their decisions to capture deposits from investors and savers, many of whom are low income persons, also demand meticulous oversight to ensure the safety of those depositors, which are large in number.
- MFIs are operating in an increasingly competitive market and maintaining or expanding the market share is becoming an important strategic objective for them. The achievement of this objective demands a sharper focus and more vigilant monitoring of operational efficiency, profitability, outreach, institutional stability, capital mobilization and other economic outcomes which are usually performed by CG structure.
- MFIs often operate in unstable financial environments, which are causing stakeholders (donors, lenders and owners) to require more transparency and communication of information and only effective governance can assure the desired level of this accountability.

In the Ethiopian context, the establishment of sustainable MFI which could reach the large number of rural and urban poor who are not being served by the conventional financial institutions (commercial banks) has been a prime component of the new development strategy of the Country (Amaha, 2000).

The Ethiopian Micro Finance 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 like other financial institutions (Deribie, et al., 2013).

As the size of the outreach and saving mobilization from the public increases, there is a dare need to ensure transparency, accountability and good governance in the micro finance sector. However governance issues have not been given due attention by owners or shareholders, regulators, and board members, (Amaha, 2008). Consequently, addressing governance issues of Ethiopian MFIs should be given due importance for the following reasons:

- Ethiopian MFIs take deposits from the public and any mismanagement of assets and resources may result in eating the savings of the poor people.
- The outreach of MFIs in Ethiopia has significantly increased in the last 10 years which forced them to take loans from commercial sources such as local commercial banks and Rural Financial Intermediation Program. Managing the significant growth of MFIs in Ethiopia requires effective governance, involving both the board and management. Moreover, any financial insolvency in one MFI may have a negative repercussion on the entire microfinance industry.
- MFIs in Ethiopia can be grouped in to three broad categories; government supported, NGO supported and privately owned. This makes the CG more complex and suffering from common legal framework and accountability which signifies that it is worth studying. Keeping this in mind and the potential contribution of the Micro finance industry to the economy of developing countries like Ethiopia, there comes a need to conduct a study to measure and analyze the impact of corporate governance components on the financial performance of MFIs by taking evidence from sample MFIs.
- Many studies have not been conducted with regard to corporate governance on micro finance institutions of Ethiopia. Most of the governance issues are the best practices of commercial banks. Therefore, to add a little value to the literature of

governance of micro finance institutions, it was found to be helpful to conduct a study on the subject matter.

1.4. Objective of the study

1.4.1. General Objective of the study

The general objective of the study is to analyze corporate governance issues and their impact on performance of Ethiopian Micro finance Institutions.

1.4.2. Specific objectives of the study

Under the above general objective, the study's specific objective is to analyze the relationship between corporate governance mechanisms such as board size, board's business management experience, gender diversity of the board, directors' educational qualification, industry specific experience of the board members and size of audit committee of the board against firm performance as measured by return on equity (ROE) and return on assets (ROA).

1.5. Hypotheses of the Study

The following hypotheses have been developed for the study

Ha1: Board size has a significant negative relationship with the financial performance of Microfinance Institutions.

Ha2: Gender Diversity of a Board has significant positive relationship with the financial performance of MFIs.

Ha3: Educational qualification of the board members has a significant positive relationship with the financial performance of MFIs.

Ha4: Board members' Industry specific experience has a significant positive relationship with the financial performance of MFIs

Ha5: Board members' business management experience has a significant positive relationship with the financial performance of MFIs

Ha6: Size of audit committee in a board has a significant negative relationship with the financial performance of MFIs

1.6. Research Questions

The study tried to address the following questions.

Q1. How CG issues are addressed by Ethiopian Microfinance Institutions?

Q2. Is there any relationship between CG mechanisms and performance of Microfinance Institutions in Ethiopia and if so too what extent is CG mechanisms are affecting performance of MFIs?

Q4. What is the current development of CG concepts in Ethiopian MFIs?

1.7. Significance of the study

It is believed that the study will have invaluable importance for different actors in the Corporate Governance system as follows:

- Policy makers may find the study useful as a basis of formulating policies and procedures which can be effectively implemented for better and easier regulation of MFIs.

- The government could use the study so as to come up with clear criteria of promoting CG in MFIs of Ethiopia.
- Researchers in particular and academic community in general could use this study as a stepping stone for further studies on MFI's CG issues.
- Management of the MFIs may find the study invaluable in making decisions regarding corporate governance issues.

Generally, it is highly believed that the result of this study will contribute its own share for Micro finance institutions in terms of identifying relevant corporate governance mechanisms and their impact on their financial performance.

1.8. Scope and Limitations of the study

It is the belief of the researcher that the concept of CG in developing countries is not well developed and studies have not been conducted in sufficient depth. In this regard, it would have been worth studying the impact of CG mechanisms on the financial performance of all financial institutions in Ethiopia, but due to time, cost and other relevant limitations, the scope of this study has been limited to the impact of CG mechanisms on the financial performance of selected MFIs in Ethiopia. The study has also been limited by the fact that most of MFIs were not willing to provide data to be used for the study and the researcher was forced to use data from five MFIs which were willing to provide their audited financial statements.

1.9. Organization of the study

The study is organized in to five chapters. The first chapter introduces what the study is about and gives a brief introduction about the study, the problem statement, the objectives, hypotheses, significance, scope and limitations of the study while chapter two provides a highlight of pertinent theoretical and empirical reviews of the literature and conceptual framework relevant to the study. The third chapter provides description about

the methodology and the variables used in the study and the fourth chapter presents the results and discussions of the study conducted based on data collected from secondary and primary sources. The results of the descriptive statistics, correlation analysis and regression analysis have also been discussed in the fourth chapter of the study. The study ended up with the conclusion and recommendations chapter, which is chapter five, that brings to light the conclusion and major findings of the study with possible recommendations in a manner that relates to the topic, which is the impact of corporate governance mechanisms on the financial performance of Microfinance Institutions in Ethiopia.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter discusses the theoretical and empirical literatures which are related to the study variables. Accordingly the concepts and principles of Microfinance and Corporate Governance, the theoretical framework of CG, growth of MFIs in Ethiopia and CG issues specific to MFIs have been discussed under this chapter. In this chapter, the results of different empirical studies conducted on the impact of CG mechanisms on MFIs' performance has also been discussed and analyzed against the result of the study.

2.1. The concept of Microfinance

According to Lukwago Joel (2012), the concept of micro-credit— the extension of small loans without any collateral, based on joint liability— was pioneered by Dr. Muhammad Yunus in 1976 in Bangladesh. The remarkable outreach of this movement in Bangladesh (which presently covers not only credit but also a number of financial and non-financial services) has shown that extending credit and financial services to the poor is feasible and profitable. The access of the poor to credit is also recognized as an important strategy in achieving the Millennium Development Goals of promoting gender equality, women's empowerment and poverty reduction. The World Development Report of 2000/2001 widely recommended the microcredit for poverty reduction and as a social safety net for the poor of the developing countries (World Development Report, 2001). As of December 31, 2010, 3,652 microfinance institutions reported reaching 205,314,502 clients, 137,547,441 of whom were among the poorest when they took their first loan. Of these poorest clients, 82.3 percent, or 113,138,652, are women. (Microcredit Summit Report, 2012). Microfinance is high on the public agenda after the UN Year of Microcredit in 2005 and the awarding of the Nobel peace prize to Dr. Yunus and the Grameen Bank' in 2006.

Microfinance is defined as the provision of financial services, mostly savings and credit to the poor and low income households that otherwise don't have access to mainstream commercial banks (Rock *et al.,* 1998). Ledgerwood (1999) defines microfinance as the provision of financial services to low income clients. According to Robinson (2001) Microfinance is financial services primarily credit and savings provided to people who farm, fish or herd at a small scale and those who operate small enterprises. Microfinance industry is the primary source of credit and saving to low income earners. The industry is currently growing rapidly and how they are governed therefore matters (Kyereboah-Coleman & Biekpe, 2005). Stakeholders in the industry have recognized that good governance is an important element in the success of the MFIs (Campion, 1998); (Rock, 1998). In spite of this observation, only a few studies have focused on governance and the examination of the linkage between various governance mechanisms and performance of MFIs (McGuire, 1999).

Microfinance practitioners have recognized that good governance is critical for the success of the MFIs but only few studies on regulations in microfinance have touched upon governance issues (Valentina Hartarska, 2004). Closer examination of the role of various governance mechanisms is important because MFI managers control significant resources. In Central and Eastern Europe the asset base of these organizations is estimated to be 1.2 billion dollars (Foster, Green, and Pytkowska, 2003). The waves of corporate scandals in developed countries indicate that there is much room for improvement of governance practices even in countries with well-functioning markets and in industries with established mechanisms of control. There are several reasons for the lack of studies on the effect of MFIs governance on performance. First, performance data are considered proprietary and are hard to obtain. Although the majority of MFIs are funded with public funds channeled through large international development agencies, until recently the practice was to withhold performance information from the general public. Moreover, there are no market mechanisms that promote transparency as scrutiny is not in the interest of either donors or MFI managers, and thus governance practices are not very transparent (Valentina Hartarska, 2004).

The microfinance industry is quite diverse in terms of organizational types, with MFIs organized as non-governmental organizations (NGOs), banks, credit cooperatives or nonbank financial institutions. This diversity complicates the analysis because it makes it difficult to choose appropriate conceptual framework. The literature on governance focuses mainly on problems of the modern public company while the governance issues in banks and in non-profit organizations are much less understood and empirical studies of these organizational types are rare. However, a 1998 industry survey shows that there are few differences in the objectives and performance of MFIs organized under different legal forms. Therefore, an empirical approach built on theoretical predictions relevant to MFIs could be used to identify the impact of various governance mechanisms (Valentina Hartarska, 2004).

2.2. The concept of Corporate Governance

The new century's financial scandals affecting major American firms, such as Enron, WorldCom and Arthur Andersen, and the resulting loss of confidence of the investing public in the stock market led to dramatic declines in share prices and substantial financial losses to millions of individual investors (Ahmed, 2012). Consequently corporate governance of companies, regardless of the nature of the business whether it is governmental, Non-Governmental or private, has become a popular discussion topic in developed and developing countries. According to the council of Microfinance Equity Funds (2012), Corporate Governance, broadly defined, is the system of people and processes that keep an organization on track and through which it makes major decisions. Generally Governance is concerned with the processes, systems, practices and procedures that govern institutions, the manner in which these rules and regulations are applied and followed, the relationships that these rules and regulations determine or create, and the nature of those relationships. Essentially, governance addresses the leadership role in the institutional framework (Kosgei, 2014).

Corporate Governance, therefore, refers to the manner in which the power of a corporation is exercised in the stewardship of the corporation's total portfolio of assets

and resources with the objective of maintaining and increasing shareholder value and satisfaction of other stakeholders in the context of its corporate mission. It is concerned with creating a balance between economic and social goals and between individual and communal goals while encouraging efficient use of resources, accountability in the use of power and stewardship and as far as possible to align the interests of individuals, corporations and society (Kosgei, 2014). In the broadest terms, the functions of Corporate Governance are:

1. To uphold the organization's goals and mission and see that they are implemented
2. To guide the organization's major strategic directions
3. To maintain the organization's health over time and to mitigate risks
4. To ensure accountability throughout the organization and
5. To ensure that the organization has the necessary human and financial resources to operate effectively

In the governance of Microfinance Institutions, a broad range of actors have an active role. It is possible to see these actors broadly as external or internal, according to their roles in the governance process. External actors include:

- Entities that oversee the institutions' financial health: regulators and auditors
- Providers of financing; shareholders, lenders, and depositors
- Communities served by the institutions
- Employees
- Clients

Internal actors include:

- The board of directors
- Senior management
- Internal auditors, as they interact with the board

Although governance takes place in this broad context, the board of directors is the pivotal point through which all these players connect.

2.3. Corporate Governance Principles

The Universal Corporate Governance Code for Microfinance Institutions (2011), has identified seven CG principles discussed below.

2.3.1. Fairness

Fairness relates to protection of shareholder rights, in the case of organizations with a corporate status, guaranteeing fair treatment for everyone and with special protection of minority shareholder rights and encouraging the exercise of their right to company information and voting rights. In the case of organizations with a different legal status, like NGOs, cooperatives, etc. the guarantee that decision making at the governance levels is fair, limiting abuse of power by a minority group or excessive concentration of power in one of the members.

2.3.2. Responsibility

This is about establishing a framework of responsibility for administrators (or governance body members) and senior executives (or the organization's managers) aimed at creating long-term, sustainable value for shareholders and other stakeholders (customers, suppliers, international finance and development bodies, etc.). The aim is the company's long-term survival on the basis of sustainability, keeping integrity and boosting its financial and intellectual capital (human, structural, relational and social).

2.3.3. Respect for Rights

This refers to respect for people’s dignity and their inherent rights. An organization must be committed to the United Nations Universal Declaration of Human Rights and to other

international organization treaties that promote human rights, in particular the International Labor Organization. An important aspect of these rights and a demonstration of this dignity is equal opportunities and respect for diversity.

2.3.4. Corporate Integrity

Corporate integrity is all about promoting honorable and impeccable behavior, based on the belief that without integrity customer, stakeholder and company trust is impossible. As part of personal integrity, the organization's employees must show outstanding dedication and a professional attitude in both processes and result management, in order to ensure an excellent reputation.

2.3.5. Loyalty

Loyalty refers to acting in good faith in the organization's general interests, honestly and rigorously, knowing that a consistent example set by all of the organization's employees is of fundamental importance. The organization must hire responsible people who try to find the best answer to situations, proposing solutions and assuming the risk of being wrong. This way they learn to take the right decisions.

2.3.6. Compliance with Regulations

This principle requires organizations to comply with legal provisions and regulations that apply to the organization in accordance with the applicable legal framework, cooperation with supervisory, judicial and administrative authorities to prevent unlawful activities and conflicts of interest.

2.3.7. Transparency

This requires attaching particular importance to policies that allow stakeholders their access to significant information, guaranteeing that this information is reliable and available, based on transparency and external, independent verification. This means

issuing and disclosing information responsibly and accurately, promoting transparency, fluidity, confidentiality and integrity in the markets where it operates. The organization must also establish procedures and rules to ensure that legal requirements regarding the safekeeping of documents and records are fulfilled.

2.4. Theoretical framework of Corporate Governance

According to Imam and Malik (2007) the corporate governance theoretical framework is the widest control mechanism of corporate factors to support the efficient use of corporate resources. The challenge of corporate governance could help to align the interests of individuals, corporations and society through a fundamental ethical basis and it fulfills the long term strategic goal of the owners. CG can certainly not be the same for all organizations, but may take into account the expectations of all the key stakeholders (Imam & Malik, 2007). So maintaining proper compliance with all the applicable legal and regulatory requirements under which the company is carrying out its activities is also achieved by good practice of corporate governance mechanisms. In this regard, there are a number of theoretical perspectives which are used in explaining the impact of corporate governance mechanisms on firms' financial performance. The most important theories are the agency theory, stakeholders' theory and resource dependency theory (Maher & Anderson, 1999).

2.4.1. Agency Theory

According to Habbash (2010) agency theory is the most popular concept and has received greater attention from academics and practitioners. The agency theory is based on the principal agent relationships. The separation of ownership from management in modern corporations provides the context for the functioning of the agency theory. In modern corporations the shareholders (principals) are widely dispersed and they are not normally involved in the day to day operations and management of their companies rather they hire mangers (agents) to manage the companies on behalf of them (Habbash, 2010). The agents

are appointed to manage the day to day operations of the corporation. The separation of ownership and controlling rights results conflicts of interest between agent and principal. To solve this problem or to align the conflicting interests of managers and owners the company incurs controlling costs including incentives given for managers.

Agency theory refers to a set of propositions in governing a modern corporation which is typically characterized by large number of shareholders who allow agents to control and manage their collective capital for future returns. The agent, typically, may not always own shares but may possess relevant professional skills and competence in managing the corporation. The theory offers many useful ways to examine the relationship between owners and managers and verify how the final objective of maximizing the returns to the owners is achieved, particularly when the managers do not own the corporation's resources. Agency theory identifies the role of the monitoring mechanism of corporate governance to decrease agency costs and the conflict of interest between managers and owners. It is clear that the principal-agent theory is generally considered as the starting point for any debate on the issue of corporate governance (Ibid).

According to Abrham (2014) Agency theory having its roots in economic theory was exposited by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976). Jensen and Meckling (1976) defined agency relationship as a contract under which the principal engage another person or the agent to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizes, there is good reason to believe that the agent will not always act in the best interests of the principal. The principal can limit divergences from his interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit the irregular activities of the agent. According to agency theory the agent strive to achieve his personal goals at the expense of the principal. Mangers are mostly motivated by their own personal interests and benefits, and work to maximize their own personal benefit rather than considering shareholders interests and maximizing shareholders wealth. To reduce agency problem there must be better monitoring and controlling mechanisms which helps to ensure that managers pursue the

interests of shareholders rather than only their own interests and this could be achieved through good CG practices.

The concept of corporate governance presumes a fundamental tension between shareholders and corporate managers (Jensen & Meckling, 1976). While the objective of a corporation's shareholders is a return on their investment, managers are likely to have other goals, such as the power and prestige of running a large and powerful organization, or entertainment and other perquisites of their position. Managers' superior access to inside information and the relatively powerless position of the numerous and dispersed shareholders, mean that managers are likely to have the upper hand (Fama & Jensen,1983). Therefore, shareholders monitor and control managers through their representatives such as board of directors. Boards of directors are considered as an important device to protect shareholders from being exploited by managers and help to effectively control managers when they try to maximize their self interest at the expense of the company's profitability.

Fama and Jensen (1983) argues that in order to minimize agency problem that emanates from the separation of ownership and control the corporations need to have a mechanisms that enables to separate the authority of decision management from decision control. This would reduce agency costs and ensures maximization of Share holders' wealth by effectively controlling the power and self-centered decisions of management. The agency theory provides a basis for the governance of firms through various internal and external mechanisms. Corporate governance mechanisms are designed to align the interest of owners and managers, constrained the opportunistic behaviors of managers and protect shareholder interests, generally to solve agency problem (Habbash, 2010).

Corporate governance is a mechanism through which shareholders are assured that managers will act in their best interests and it limits agency problems. Agency theory suggests a number of mechanisms to reduce the agency problem in the company; such as

choosing appropriate board composition (in terms of size, gender, experience and competence) and establishing effective audit committee (Tandelilin et al., 2007).

From the perspective of agency theory, corporate governance improves company performance by resolving agency problems through monitoring activities of management, controlling self-centered behaviors of management and inspecting the financial reporting process (Habbash, 2010). Moreover, corporate governance is able to alleviate agency costs by aligning the conflicting interests of management and shareholders through monitoring management and using different corporate governance mechanisms. Therefore, corporate governance mechanisms such as boards of directors and audit committees enable shareholders to closely monitor the activities of managers. Ineffective board and audit committee may give confidence for managers to pursue their own interests against the interests of shareholders but effective board and audit committee can reduce deceptive behavior of managers by detecting fraudulent financial report and actively monitoring of their performance.

According to the assumptions of agency theory corporate governance mechanisms affect financial performance. As a consequence, enhancing corporate governance mechanisms should result in improved financial performance. Taking agency theory into consideration, the study variables were identified with the aim of examining the relationships between corporate governance mechanisms and financial performance. Board structure has relied heavily on the concepts of agency theory, focusing on the controlling function of the board (Habbash, 2010). The corporate governance mechanisms considered in this research include board size, board gender diversity, educational qualification of board members, general and industry specific experience of board members and existence of audit committee.

2.4.2. Stakeholders theory

Stakeholder theory is an extension of the agency theory, where the agency theory expects board of directors to protect only the interests of shareholders. However, stakeholder theory extends the arrow focus of agency theory on shareholders' interest to stakeholders

to take into account the interests of many different groups and individuals, including interest groups related to social, environmental and ethical considerations (Freeman et al., 2004).

According to Freeman et al. (2004), stakeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business. It asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together. It also pushes managers to be clear about how they want to do business, specifically what kinds of relationships they want and need to create with their stakeholders to deliver on their purpose. According to stakeholder theory the purpose of the firm is to serve and coordinate the interests of its various stakeholders such as Shareholders, employees, creditors, customers, suppliers, government, and the community at large. According to Habbash (2010), stakeholder refers to any one whose goals have direct or indirect connections with the firm and influenced by a firm or who exert influence on the firms goal achievement. These include management, employees, clients, suppliers, government, political parties and local community. According to this theory, the stakeholders in corporate governance can create a favorable external environment which is conducive to the realization of corporate social responsibility.

Moreover, the stakeholders in corporate governance will enable the company to consider more about the customers, the community and social organizations and can create a stable environment for sustainable development. The benefit of the stakeholder model emphasis is on overcoming problems of underinvestment associated with opportunistic behavior and in encouraging active co-operation amongst stakeholders to ensure the long-term profitability of the business firm (Maher & Anderson, 1999).

According to Kyereboah-Coleman (2007) management receive capital from shareholders and depend on employees to accomplish the objective of the company but external stakeholders such as customers, suppliers, and the community are equally important, and also constrained by formal and informal rules that business must respect. According to stakeholders theory the best firms are ones with committed suppliers, customers, and employees and management. Recently, stakeholder theory has received attention than

earlier because researchers have recognized that the activities of a corporate entity impact on the external environment requiring accountability of the organization to a wider audience than simply its shareholders (Kyereboah-Coleman, 2007).

Companies are no longer the instrument of shareholders alone as long as they exist within the society. It has responsibilities to the stakeholders as well. However, most researchers argue that it is unrealistic task for managers (Sundaram & Inkpen, 2004; Sanda et al., 2005). The stakeholder theory has not been subjected to much empirical study. The common criticisms for stakeholder theory is that how to align the stakeholders conflicting interests since the difficulties result from how to administer different stakeholders with various needs and demands and it is not possible to treat all stakeholders equally (Habbash, 2010). Moreover, it is not practical for all stakeholders to be effectively represented in corporate governance recommendations as this may undermine the welfare of companies (Habbash, 2010). The other critique of the stakeholder model is that managers or directors may use "stakeholder" reasons to justify poor company performance (Maher & Anderson, 1999).

2.4.3. Resource dependency theory

Whilst the stakeholder theory focuses on relationships with many groups for individual benefits, resource dependency theory concentrates on the role of board of directors in providing access to resources needed by the firm (Abdullah & Valentine, 2009). According to this theory the primary function of the board of directors is to provide resources to the firm and directors are viewed as an important resource to the firm. When directors are considered as resource providers, various dimensions of director diversity clearly become important such as gender, experience, qualification and the like. According to Abdullah and Valentine (2009), directors bring resources to the firm, such as information, skills, business expertise, access to key constituents such as suppliers, buyers, public policy makers, social groups as well as legitimacy. Boards of directors provide expertise, skills, information and potential linkage with environment for firms (Ayuso & Argandona, 2007). The resource based approach notes that the board of

directors could support the management in areas where in-firm knowledge is limited or lacking. The resource dependence model suggests that the board of directors could be used as a mechanism to form links with the external environment in order to support the management in the achievement of organizational goals.

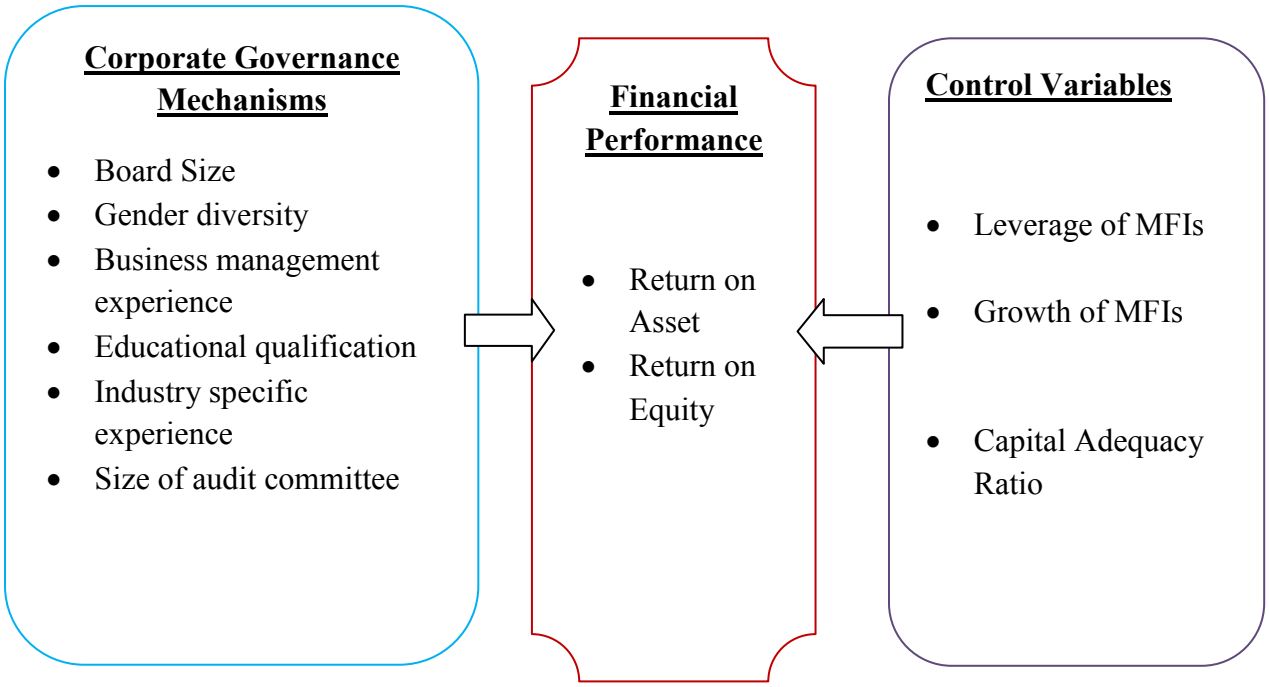
The agency theory concentrated on the monitoring and controlling role of board of directors whereas the resource dependency theory focus on the advisory and counseling role of directors to a firm management. Recently, both economists and management scholars tend to assign to boards the dual role of monitors and advisers of management. However, whether boards perform such functions effectively is still a controversial issue (Ferreira, 2010). Within a corporate governance framework, the composition of corporate boards is crucial to aligning the interest of management and shareholders, to providing information for monitoring and counseling, and to ensuring effective decision-making. The dual role of boards is recognized. However, board structure has relied heavily on agency theory concepts, focusing on the control function of the board (Habbash, 2010).

Each of the three theories is useful in considering the efficiency and effectiveness of the monitoring and control functions of corporate governance. But, many of these theoretical perspectives are intended as complements to, not substitutes for, agency theory (Habbash, 2010). Among the various theories discussed; agency theory is the most popular and has received the most attention from academics and practitioners. According to Habash (2010), the influence of agency theory has been instrumental in the development of corporate governance standards, principles and codes. Mallin (2007) provides a comprehensive discussion of corporate governance theories and argues that the agency approach is the most appropriate because it provides a better explanation for corporate governance roles (as cited by Habash, 2010).

2.5. Conceptual framework of the study

The following simple diagrammatic framework is developed based on the agency theory.

Figure 2.1: conceptual framework



Source: Researcher's own design, 2015.

2.6. Microfinance Institutions in Ethiopia

The Ethiopian microfinance market is largely dominated by a few large MFIs which are owned by regional state governments. Since the first Proclamation of 1996 that gave the legal background for the operation of the micro-financing business in Ethiopia, the industry has witnessed a major boom. There are 34 MFIs registered with the National Bank of Ethiopia. The three largest Microfinance institutions; Amhara Credit & Saving Institute (ACSI), Dedebit Credit & Saving Institute (DECSI) and Oromia Credit & Saving S.C. (OCSSCO) account for 65% & 74% of the market share in terms of borrowing and loan provision, respectively.

Microfinance institutions functioning currently in Ethiopia demonstrate a number of strengths. Some of the major strengths include:

- The service provision is centered on urban and rural poor community to particularly play a role in alleviating the chronic problem of poverty in those areas
- The number of clients served is growing from time to time making it accessible for the needy partners
- Regional distribution of the service is appreciable as microfinance institutions are operating in all regional states of the country.

However, there are still big challenges facing the microfinance industry in Ethiopia. The first challenge is the inaccessibility of foreign capitals which may foster their loan portfolio. As a result, many MFIs are limited to certain category of services. Lack of clarity in ownership structures persists specially in some MFIs where private investors are not the real owners of the MFIs though they are shareholders. Lack of skilled human power is also the common problem for Ethiopian Microfinance institutions and the industry is suffering from high turnover of experienced employees either for the need of better jobs or hates to work in rural areas where minimal facilities are provided as compared to urban areas which offer better living conditions (Abrham 2014). The other challenge MFIs operating in Ethiopia are facing specially those microfinance institutions operating in remote rural areas having poor infrastructure development is limitation in terms of using modern core finance technologies and this has exposed them for non-standardized reporting and performance monitoring systems. On the other hand, MFIs face challenges of obtaining loans in the existing finance market particularly from banks and this hinder their strive for addressing various needs of their clients.

There is also an illegal way of doing the micro financing business from the side of the government, NGOs and other agencies which continue to provide uncollectible loans by violating the proclamations ratified by the House of People's Representatives. Apart from this, there are deep concerns within the microfinance sector about the growing issue of

inflation on the profitability of MFIs, and the ability to maintain low interest rates. Other challenges most commonly cited are lack of knowledge about microfinance services, weak governance and management capacities for further developments, less attention and emphasis on the financial sustainability of MFIs, low interest rates in the microfinance industry affecting the financial health and viability of MFIs and limited outreach particularly for women. (Abrham, 2014).

2.7. Empirical Studies

Though not like corporate governance of banks, the effect of corporate governance mechanisms on the financial performance of Microfinance institutions has been studied by different scholars at different times and some of these studies and their results have been discussed below.

2.7.1. Effects of CG on MFIs Financial performance in Kenya

This study was conducted by Mohammed Abdi et al (2014) and focused on the effects of corporate governance on Microfinance Institutions financial sustainability in Kenya over a period of eleven years from 2000-2011. For this study explanatory research design was used in trying to establish the causal effect relationship between corporate governance variables (which were; board size, CEO duality, composition of the board and CEO gender diversity) and the financial sustainability of the MFIs in Kenya (measured using ROA). According to the study corporate governance practices plays an important role in the operation of Microfinance institutions for enhanced financial sustainability and the findings of the study revealed that board diversity of a moderate board size with a considerable number of women is better placed to ensure independence of the board hence boosting financial performance. From the study it was also clear that MFI boards could enhance financial sustainability by having directors with diverse expertise and skills. A moderate board size is likely to improve whereas more diverse board is likely to have better relations with other stakeholders. According to the findings of CEO duality, it was established that separation of board chairman and CEO positions is vital in MFIs

because this minimizes the tension between CEO and board members thus influencing positively on the financial sustainability of MFIs and it also reduces conflict of interest from the CEO.

Several scholars, mostly notably (Jensen, 1993; Siele, 2009), have argued that the lack of independent leadership in firms where the CEO is also the chairman results in less monitoring of top management and consequently more severe agency problems. Given that a key function of the board is to determine who should serve as CEO, Jensen and other scholars argue that the board cannot effectively replace poorly performing Managers when the CEO and chairman tittles are vested in one individual. The study concluded that there should be a separation of roles between CEO and chairperson of the board to boost their performance. It has also been noted that firms are more valuable when there is separation of roles between CEO and chairperson (Siele, 2009; Yermack, 1996; Sanda, 2003).

From the findings it was also evident that MFI financial sustainability is enhanced when the CEO is a female and this could be true in the case of most of the MFIs customers are women and the CEO being a woman is likely to attract more women to invest in MFI, thus, allows the MFIs to increase its profitability. Fondas and Sassalos (2000) have also argued that women generally have higher expectations in terms of their responsibilities as CEOs which could influence the board's effectiveness towards productivity. The result of the study has also showed that good governance structure is important in the young and immature microfinance industry as it has an effect on the institution performance. The observations of the study do not only aim at fine-tuning governance in MFIs in terms of policy direction, but equally important to ensure collapse of MFIs as a result of governance is hindered so as not to hollow the critical process of poverty reduction and development.

2.7.2. Corporate Governance and Financial Performance in Uganda

This study was conducted by Joel (2012) and has tried to investigate the relationship between corporate governance mechanisms such as educational qualification of the board members, gender diversity, representation of non-executive directors on the Board and board size on one side as independent variables and performance of microfinance institutions as measured by Return on equity (ROE) as dependent variable on the other side. Accordingly, Board size is found to be positively associated with firm performance, indicating value of a larger board for the firm. Board members with education qualification below first degree had a negative relationship with firm performance, which shows that these board members contributed less or nothing towards the microfinance institutions' financial performance and growth. Gender diversity is found to be significantly associated with firm performance. However, the presence of women in a larger board is positively related to firm performance. Generally it was concluded that there exists a positive relationship between corporate governance mechanisms and financial performance of microfinance institutions.

2.7.3. CG and performance of MFIs in Central and Eastern Europe

This study was conducted by Valentina, (2004) and tried to present the first evidence on the impact of external governance mechanisms of board diversity and independence and management compensation on outreach and sustainability of microfinance institutions in Central and Eastern Europe and the Newly Independent States. Results of the study indicated that among external governance mechanisms only auditing affects outreach, whereas regulation and rating do not affect performance. Board diversity improves both outreach and sustainability while larger and less independent boards lower sustainability and performance of MFIs. It has also revealed that Performance-based compensation is not effective in aligning the interest of managers and stakeholders, and underpaying managers reduces outreach.

2.7.4. A survey of relationships of CG and performance of MFIs in Kenya

This study was conducted by Wanjiru (2007) and the purpose of the study was to establish the relationship between corporate governance and financial performance of MFIs in Kenya and to determine the challenges facing MFIs in implementing corporate governance principles. The study found out that 70 per cent of MFIs have boards consisting of up to 10 members while 30 per cent of the MFIs have over 10 members in their board of directors. When the relationship between corporate governance and performance was explored using financial aspects of the MFIs, this study found out that there exist a relationship between different aspects of corporate governance and firm performance. Specifically, the study found out that the size of the board was positively correlated with turn-over. This means that large boards bring about higher turn-over for MFIs.

2.7.5. Performance and Corporate Governance in MFIs

This study was conducted by Mersland (2008) and examined the relationship between firm performance and corporate governance in microfinance institutions (MFI) using a self-constructed global dataset on MFIs collected from third-party rating agencies. The study also investigated the effects of board and CEO characteristics, firm ownership type, customer-firm relationship, and competition and regulation on an MFI's financial performance and outreach to poor clients using random effects panel data estimations. The panel data estimations showed that financial performance improves when the board has local rather than international directors and when it employs an internal board auditor. Ownership type, however, does not affect financial performance. In the MFI-customer dimension, this study found out that the MFI is better served with a female CEO. The external mechanisms of competition and regulation have little impact on MFI performance. In outreach performance regressions, even fewer governance variables are significant. The study also found that outreach increases with CEO/chairman duality (the number of credit clients), but decreases with individual loans for both average loan size

and the number of credit clients. The study suggested that the significance of results may improve with better data and the results underline the need for an industry specific approach to MFI governance.

Generally, the results of empirical studies have been summarized based on each independent variable as follows.

- Small size of a board has a positive contribution for better performance of MFIs. This is because small boards of directors are more effective and exhibited better values for financial ratios (Jackson, 2007, Lukwago Joel, 2012, Abdi, et. al, 2014).
- Board diversity of a moderate board size with a considerable number of women is better placed to ensure independence of the board hence boosting financial performance (Abdi, et. al, 2014, Lukwago Joel, 2012, Roy Mersland, 2008).
- Board members' with education qualification below first degree have a negative relationship with firm performance, which shows that these board members contributed less or nothing towards the microfinance institutions' financial performance and growth (Lukwago Joel, 2012, Abdi, et. al, 2014, Jackson, 2007).

2.8. Corporate Governance Issues specific to MFIs

MFIs have some unique characteristics that make the study of their governance more complicated. For example, they need to fulfill an outreach mission by serving poor clients, and many operate as NGOs, which makes them similar to non-profit firms. On the other hand, many MFIs are similar to banks because they are regulated or supervised by the same regulatory body and/or because they collect deposits. The organizational diversity of MFIs also makes the empirical study of their governance more difficult. This challenge is addressed by specifying several empirical models based on insights from the corporate governance literature, from the literature on governance in banks and from the literature on governance in non-profit organizations (Valentina, 2004).

2.8.1. Ownership of MFIs in Ethiopia

In Ethiopia, regional governments, non-profit organizations, local NGOs, private enterprises and individuals representing foreign NGOs own MFIs. Both larger and smaller MFIs have also equity structures supported by foreign donors who have contributed initial capital, but are not listed as shareholders. Shareholders often act as fronts that cannot sell or transfer the shares and forego their claim on profits or dividends. As a result, they often do not have a real stake in the organization (Abrham, 2014).

Most of the large MFIs owned by regional governments are supported by donors and these are reflected on their books as 'donated equity'. These donors can monitor the use and management of the funds but are not shareholders. In any case, the law does not allow foreign participation in ownership. The issue that is raised by this case is that shareholders do not match up with the equity structures and what happens to profits generated by donated equity funds; in the event of sale (in the case of privatization) or liquidation how are the donated equity funds handled.

The absence of clients in the ownership structure of most MFIs has also become a critical concern and in general terms, the level of client awareness of management and ownership structures is very low. In this regard, MFIs should do more to create awareness and develop appropriate mechanisms to facilitate the process of client participation in the ownership structure. Client ownership is also believed to strengthen their identity with the institution, reduce the dropout rate, enhance the equity base, and improve the public image of MFIs, accountability and transparency. As a related issue, the importance of encouraging MFIs to access private sector equity, particularly by commercial banks could add to capital strength and facilitate linkages with the banking system (Wolday, 2000).

In general, ownership diversification could enhance the quality of MFIs' financial services, ensure healthy growth, transparency, and help in achieving long-term sustainability. As part of the process of considering ownership diversification, there is a need to revisit the legal framework that restricts direct 'foreign' participation in the equity. In addition to diversification of ownership, the IFAD appraisal identifies a need

for MFI management to enhance their long-term shareholder value and at the same time protect the interests of other stakeholders through healthy governance practices of disclosure, transparency, role of directors, and degree of accountability to the shareholders, lenders and overall public good. To this end, RUFIP includes plans for a study of ownership and governance issues, identify best practices for good governance, and hold a policy level workshop on the topic. AEMFI currently has a bid out for a similar study.

2.8.2. Issues of the Board of Directors

Board members are not the owners of invested capital in most of MFIs in Ethiopia. Since they do not have a financial stake in the institutions, they need other positive incentives (Wolday, 2000). The lack of professionalism and MFI expertise and experience on some boards is also another issue. Board members often are civil servants, social workers, and NGO representatives. While they often have a strong commitment for poverty alleviation and development, many board members do not have sufficient experience, skill and proper mix to oversee the policies and efficient management of MFIs. While they are dedicated and committed, they may not always have a businesslike approach. These concerns necessitate a need for restructuring boards (to have mix of competencies required); need for training board members and need for regular assessment of MFI board structure.

2.8.3. Other governance issues

In its 2000 working paper, Association of Ethiopian Microfinance Institutions (AEMFI) argues that governance issues are fundamentally the same in MFIs supported by regional governments and in others supported mainly by international NGOs. The report asserts that almost all MFIs in Ethiopia have government support and depend on donor support as a major source of loan funds. While this point may be well taken, it begs the question of a political overlay in MFI ownership and policies and the possible use of public resources (donor funds) and state infrastructure to support a political agenda. Governance

and ownership issues would be important to pursue in the context of moves towards privatization and the creation of rural micro-banks in the country.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter details about the collection, measurement and analysis of data. It includes decisions such as type of data to be found, sample design, techniques of data collection and way of data analyses (Kothari 2004). This study uses different types of research designs which would be the blue prints for collecting and analyzing the data in relation to the impact of corporate governance mechanisms on financial performance of MFIs.

3.1. Research Design

Examining the impact of corporate governance mechanisms on the financial performance of MFIs in Ethiopia is the primary objective of this study. To achieve this objective, survey and descriptive type of research design with a mixed approach, more of quantitative has been employed. Moreover, descriptive type of research has been employed using interview questions and empirical evidences have been collected and the trend of financial performance measures has been explained. The explanatory type of research design helped to identify and evaluate the causal relationships between the different variables under consideration. Therefore, in this study the explanatory research design has been employed to examine the relationship of the stated variables. It is believed that mixed methods research provides better (stronger) inferences. Therefore, by using a mixed approach it is able to capitalize the strength of quantitative and qualitative approach and remove any biases that exist in any single research method.

3.2. Sampling Design

According to Association of Ethiopian Micro Finance Intuitions (AEMFI), there are 34 microfinance institutions in the country, of which nineteen are for profit MFIs while the rest are not for profit (NFP) MFIs and they are in different stages of development and exhibit high level of diversity in aspects such as ownership and leadership. For this study it was found appropriate to use a purposive sampling technique from which 5 MFIs, which were willing to provide data and had complete ten year data, were selected. The sampled MFIs include Amhara Credit and Saving S.C., Oromia Credit and Saving S.C, Addis Microfinance S.C, Vision Fund Microfinance S.C, and Peace Microfinance Institute. Due to the nature of the subject matter, Chief Executive Officers (CEOs) and other senior managers have been selected for an interview and questionnaire.

3.3. Source of data and collection methods

The necessary data for this study has been collected from both primary and secondary sources. The secondary source of data was the audited financial statements of MFIs which has been collected over a period of ten years (2005-2014). The primary data were collected through questionnaires. The questioner was developed to collect the required data for this study such as size of board, number of female directors in the board, educational qualification of board members, industry specific experience of board members and size of audit committee. The questionnaire was designed in such a way that it can identify the role of corporate governance mechanisms and capture both the dependent and explanatory variables considered in the study. Questioners were distributed to each CEO of the MFIs.

3.4. Specification of empirical research model

To estimate the impact of corporate governance mechanisms on the financial performance of the micro finance institution, the following general empirical research model is developed:

$$\mathbf{Y}it = \boldsymbol{\beta}0 + \Sigma\boldsymbol{\beta}\mathbf{K}\mathbf{X}it + \boldsymbol{\varepsilon}it$$

Where:

Y*it* represents the mean value of dependent variables (ROA and ROE)

βo is the intercept

βK represents the coefficients of the X variable

X*it* represents the explanatory variables (BSIZE, BGD, BQUAL, BMEXP, INDUEXP, AUDITCSZ)

ε*it* is the error term.

The above general empirical research model is changed in to the study variables to find out the impact of corporate governance mechanisms on firm's financial performance as follows:

ROA= βo +β1(MFIsize) + β2(MFIGD) + β3(MFIqual) + β4(MFIBMExp) + β5 (MFIInduExp) + β6(MFIAuditSize)+ β7(MFISZ*it*) + β8(MFILEV*it*) + β9(MFIGRTH*it*).

ROE= βo +β1(MFIsize) + β2(MFIGD) + β3(MFIBqual) + β4(MFIBMExp) + β5 (MFIInduExp) + β6(MFIAuditSize)+ β7(MFISZ*it*) + β8(MFILEV*it*) + β9(MFIGRTH*it*).

Dependent variables

ROA= Return on asset of the MFI

ROE= Return on equity of the MFI

Independent variables

MFIBsize=board size of the MFI

MFIGD= Board gender diversity (presence of female directors)

MFIBqual=Educational qualification of board of directors

MFIBMExp=Board management's business management experience of the MFI

MFIInduExp= Industry specific experience of boards of the MFI

MFIAuditsize= Audit committee size of the MFI

Control variables

MFICAZ = Capital Adequacy Ratio of the MFI

MFILEV = Leverage of the MFI

MFIGRTH = Growth of the MFI

3.5. Data Analysis

Data analysis has involved editing, coding and tabulation of collected data (Kothari 2004). The analysis process applies both qualitative and quantitative techniques of data presentation. It also uses tables and percentages.

The explanatory variables considered in this study are greater than two in number So multiple regression statistical tools, which can reveal the relationship between the dependent variable and the effect of each independent variable as well as the multiple regression between the dependent and the collective effect of independent variables, has been found to be appropriate to analyze the data collected from the survey. The survey response has also been analyzed to measure correlations and report descriptive statistics, coefficient of multiple correlations, and regressions. F test and t-test have also been used to determine the significant of multiple correlations at 5% level of significance.

In order to simplify the analysis process, EVIEWS version-8 software has been used in the study.

3.6. Description of Variables and Measurements

In this study, the variables have been selected based on alternative theories and previous empirical studies related to corporate governance and firm performance. In accordance with the theory and empirical studies, the independent, dependent and control variables of the study have been identified in order to investigate the impact of corporate governance mechanisms on the financial performance of MFIs in Ethiopia.

3.6.1. Dependent Variables

The dependent variables considered in this study are variables that are used to measure the financial performance of MFIs and are defined as follows:

Return on Asset (ROA) - measures the overall efficiency of management. It gives an idea how efficient management is at using its assets to generate earnings. **ROA = Profit after Tax/Total Asset.**

Return on Equity (ROE) - measures a firm's financial performance by revealing how much profit a company generates with the money shareholders have invested. It shows how well the shareholders funds are managed and used to generate return. **ROE = Profit after Tax/Total Equity**.

3.6.2. Independent Variables

The independent variables which are going to be considered for this study are variables that are used as a determinant of corporate governance of MFIs. These are board's size, board's gender diversity, board members' educational qualification, board members' business management experience, board members industry specific experience, and size of audit committee. The definition and measurements of the variables are as follows:

3.6.2.1. Board Size

Board size can be defined as the number of directors sitting on the board. According to the agency theory limiting board size to a particular level is generally believed to be improving financial performance. The reason is that the benefit of larger boards is outweighed by the poor communication and decision making when the board size is too large. Most of the previous studies found negative effect of board size on performance of firms (Al-Manaseer et al., 2012). For this specific study, board size is expected to influence performance negatively.

3.6.2.2. Gender Diversity of the Board

Gender diversity of the board is measured as the percentage of number of female directors divided by the total number of board members. Due to the varying size of boards from one MFI to another, a percentage variable provides a more accurate and comparable measurement thus the percentage has been taken. Board gender diversity is assumed to improve company performance since it provides new insights and perspectives (Bathula, 2008). It is also believed that female board members bring diverse viewpoints to the boardroom which is not possible if all directors are male.

3.6.2.3. Educational qualification of board members

This is measured by the proportion of board members having college degree or higher to the total number of board members. Educational qualification is an important determinant of board effectiveness. According to Rose (2007) as long as board members have a university degree/or equivalent skills, it is possible to assume that the board have sufficient human capital in order to understand information that is provided by management. Educational qualifications of individual board members are important for board decision making as well. The monitoring role is also expected to be effectively implemented by the board if the board members are qualified and experienced. Competent board members are also expected to reduce agency problem.

3.6.2.4. Business Management experience of board members

This is measured as the percentage of directors who have business management experience against the total number of board members. Prior researchers measured experience using proxy variables such as industry specific and generic experiences (Kroll et al., 2008). It is important for firms to have experienced directors on board since it helps them in undertaking their duties of monitoring and controlling the management in an effective and efficient way. Directors' experience of managing businesses will also increase their effectiveness since they fully understand the general business situation (Saat, et al., 2011).

3.6.2.5. Industry specific experience of the board members

It is measured as the percentage of directors who served in other MFIs earlier at the same capacity divided by the total number of board members. It is important for MFIs to have skilled and experienced board of directors in the same sector and position. The effectiveness of board members monitoring role depends on their expertise to fully comprehend a firm's business situation (Kroll et al., 2008). Thus, industry specific experience of board members expected to improve firms' performance by helping in reducing agency problem.

3.6.2.6. Size of Audit committee in the board

Size of an audit committee in a board refers to the total number of MFIs' audit committee members out of the total number of board of directors and affects MFI's performance and it is highly believed that it ensures effective monitoring (Kyereboah-coleman, 2007; Aldamen et al., 2011). It is also likely that if there is an audit committee in a board, it effectively communicates matters in the financial reporting process and helps problems to be resolved easily and timely.

3.6.3. Control Variables

Three microfinance specific control variables have been included for this specific study just to account their potential influence on financial performance of MFIs' and in order to know the effect of selected explanatory variables on MFI's financial performance. The selected control variables are capital adequacy ratio of MFI, growth rate of MFI and leverage of MFIs'. These control variables are selected based on previous studies since in most of the previous studies firm size, firm growth rate and firms' leverage were used as control variables (Habbash, 2010).

3.7. Operational definitions

The methods employed to solve corporate governance problems at firm level and to reduce the agency problem in the firm are defined as corporate governance mechanisms and financial performance -represents profitability which is measured by return on asset and return on equity.

3.8. Methods of data analysis

In this study, to analyze the collected data, both descriptive, correlation and multiple panel linear regression data analysis method were employed. The descriptive statistics was used to quantitatively describe the important features of the variables using mean, maximum, minimum and standard deviations. The correlation analysis was used to identify the relationship between the independent, dependent and control variables using Pearson correlation analysis. The correlation analysis shows only the degree of association between variables and does not permit the researcher to make causal inferences regarding the relationship between variables (Marczyk et al., 2005). Accordingly, multiple panel linear regression analysis was used to test the hypothesis and to explain the relationship between corporate governance variables and financial performance measures by controlling the influence of some selected variables. Eviews 8 software was used for analysis and the results have been presented with the use of tables.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

This chapter has three sections and presents the descriptive statistics, correlation analysis and multiple panel linear regression analysis of the study variables. The first section deals with the descriptive statistics and summarizes the main features of the study variables in terms of mean, maximum, minimum and standard deviation. The second section deals with the correlation analysis and shows the degree of association between the study variables. The third section of this chapter analyzes regression result reports of the OLS estimation output of the two regression models.

4.1.Descriptive Statistics

In this section the study presents the descriptive statistic results for dependent variables, Return on Asset (ROA) and Return on Equity (ROE) and the independent variables discussed in the earlier chapters.

4.1.1. Descriptive statistics for the dependent variables

In order to measure the financial performance of sample MFIs, two dependent variables, which are ROA and ROE, have been used in this study. As clearly indicated in the earlier chapters, return on asset measures the overall efficiency of management and it gives an idea how efficient the management is at using its assets to generate earnings and while ROE measures a firm's financial performance by revealing how much profit a company generates with the money shareholders have invested. According to the analysis of descriptive statistic from Table 4.1 below, the average value of return on asset for the sample Ethiopian MFIs is 3.9 percent (mean=0.039) with a maximum and minimum value of 0.081 and 0.001, respectively. The standard deviation is 2.21 percent from the average value. On the other hand, the average value of the sample MFIs return on equity

is 12 percent (mean=0.120) and the maximum and minimum values are 29.4 and 0.1 percent, respectively, and It deviates by 38 percent from the mean value of the sample MFIs.

Table 4.1: Descriptive statistics for dependent variables

	Return on Asset	Return on Equity
Mean	**0.039**	**0.120**
Median	**0.037**	**0.095**
Maximum	**0.081**	**0.294**
Minimum	**0.001**	**0.001**
Std. Dev.	**0.021**	**0.380**

Source: Author's Eviews descriptive statistics output for dependent variables, 2015.

Comparing results of the two financial performance measures of ROA and ROE, with a mean value of 0.039 and 0.120, respectively, sample MFIs are relatively doing better on ROE implying that sample MFIs are better in utilizing shareholders' equity capital. The 3.9% and 12% of mean ROA and ROE, respectively, achieved by sample MFIs is above the ROA and ROE achieved by conventional commercial banks in 2012 (AEMFI, 2014) and much better than the mean average ROA and ROE achieved by African MFIs in 2010 (ROA of -2% and ROE of 3.2%, AEMFI, 2012). On the basis of standard deviation from the mean value, again ROE shows higher standard deviation with a value of 0.380 indicating high deviation of sample MFIs' ROE on their mean value.

4.1.2. Descriptive statistics for the explanatory variables

In this study six independent or explanatory variables have been used. These are board size, board gender diversity, board members educational qualifications, business management experience of directors, industry specific experience of directors and size of audit committee. In addition to the six independent variables, three control variables have also been used to have a better inference for the factors affecting the performance of MFIs. The control variables used in this study are capital adequacy ratio, leverage ratio and growth ratio of the sample MFIs. Accordingly the descriptive statistics of dependent and control variables are summarized in table 4.2 and analyzed bellow.

Table 4.2: Descriptive statistics for independent and control variables

	Mean	Median	Maximum	Minimum	Std. Dev.
MFISZAC	2.600	3.000	4.000	1.000	1.030
MFILEV	1.733	1.618	4.112	0.396	0.931
MFIGRTH	0.374	0.304	1.564	-0.421	0.369
MFIBSZ	7.960	8.000	11.000	5.000	2.049
MFIBIE	0.120	0.000	0.429	0.000	0.194
MFIBGD	0.179	0.200	0.286	0.000	0.115
MFIBEQ	0.831	0.857	1.000	0.625	0.123
MFIBBME	0.441	0.338	0.857	0.000	0.315
CAPADQCYR	0.402	0.313	1.052	0.093	0.213

Source: Author's Eviews descriptive statistics output for dependent variables, 2015.

As it is indicated in table 4.2 above, the average board size for the sample MFIs is 8 members (mean = 7.960) with a maximum of 11 and a minimum of 5 directors. The standard deviation result of 2.049 indicates that for the sample MFIs board size varies by 2.049 from the average value of 7.960. The standard deviation of 2.049 also suggests that there is no wide dispersion in the board size of the sample MFIs. The recommended optimal size of a board ranges from eight to thirteen as per ACCA, P1, 2012 and seven as per the National Bank of Ethiopia; and generally the sample MFIs fall under this limit indicating that they are in a good position in terms of having the appropriate number of board members, even though there are some MFIs having a board with five members, which is bellow the recommended size of a board.

Among the sample MFIs, on average 17.9 percent (mean of 0.179) of the directors are females which is considerably a disappointing figure. The representation of female directors in a board of sample MFIs ranges from 0 to 3 as measured by minimum and maximum values of the descriptive statics indicating that there are MFIs which have no any female representation in their board and the maximum number of female directors for those which have female representation is 3 with a standard deviation of 11.5%.

It is also evidenced from the descriptive statics that the mean value of board members' educational qualifications, as measured by the proportion of directors holding college degree or higher from the total number of directors, is about 83.1 percent implying that board of directors of the sample MFIs posses the necessary level of educational qualifications. The proportions of board members educational qualifications also shows a 12.3 percent standard deviation which is more or less low as evidenced by the maximum and the minimum values of 100 and 62.5 percent, respectively.

As it is clearly indicated in the table above, the mean value of board of directors business management experience, as measured by the proportions of directors who had business management experience, for sample MFIs, is 44.1 percent (mean of 0.441), which is below average and with a maximum of 85.7 and a minimum of 0 percent. This is also evidenced by the fact that most of the sample MFIs are government owned for which

members of board of directors are political assignees. So that, it could be possible to infer that the board of the sample Ethiopian MFIs consist of directors with the majority not having general business management experience. The directors' business management experience also varies by 31.5 percent from the mean value which is relatively high.

In terms of industry specific experience, 12 percent of the board of sample MFIs has industry specific experience (a mean of 0.120) which is bellow the Indian MFIs having 21% of directors with industry specific experience (Durgavanshi, 2014). Generally directors who have industry specific experience among the sample MFIs ranges from 0 percent to 42.9 percent as explained by the minimum and maximum values of the descriptive statistics with a standard deviation of 19.4 percent indicating a fairly high variation among sample MFIs. This is also an indication for the fact that most of the directors are coming from other sectors. The audit committee of the sample MFIs has a mean value of 2.6 indicating that on average sample MFIs have an audit committee having three members. The descriptive statistics for the audit size of the sample MFIs has also minimum and maximum values of 1 and 4 with a standard deviation of 1.03 indicating that sample MFIs have at least one member of the board of directors to deal with audit issues.

Leverage of the sample MFIs, as measured by debt to equity ratio, has a mean value of 1.733 and minimum and maximum values of 0.396 and 4.112, respectively, indicating that the highly leveraged MFI has 411 percent debt to equity and it has financed most of its assets with debt while the less leveraged MFI has 39.6 percent of debt to equity and most of its assets are financed by shareholders' funds. According to Mix Market (2011), the average score of leverage attained by MFIs of Central Africa, Eastern Africa, western Africa and the entire continent of Africa is 4, 3.14, 2.15 and 2.41, respectively. Comparing Ethiopian MFIs leverage score with the score of these sub-Saharan regions, Ethiopian MFIs appeared to score normal leverage ratio but it is still above the recommended threshold of 150% (AEMFI, 2012). The deviation from the mean value, as measured by the standard deviation, is by 93.1 percent, which is fairly high.

The growth of the sample MFIs has a mean value of 0.374 and is characterized by the maximum and minimum values of 1.564 and -421 with a standard deviation of 36.9 percent. This is an indication for the existence of fast growing MFIs (with a growth rate of 156 percent) and adversely growing MFIs with a declining record of income. Finally, capital adequacy of the sample MFIs has a mean value of 40.2 percent as measured by total equity to rescued asset of the sample MFIs, implying that on average sample MFIs have financed 40.2 percent of their rescued asset (excluding their risk free assets, i.e., cash on hand and 80% of cash at bank balances) with equity, because capital adequacy in microfinance institutions is measured in relation to the relative risk weights assigned to the different category of assets held both on and off the balance sheet items. The maximum and minimum value of their capital adequacy is scored at 105.2 percent and 9.3 percent, respectively, with a standard deviation of 21.3 percent, which is fairly high.

4.2. Correlation analysis

This section of the study deals with the correlation analysis of the study variables. The purpose of undertaking correlation analysis is to check whether there is multicollinearity problem in the model and to indicate whether the variables move together or not in the same direction and the correlation coefficient indicates the strength of a linear relationship between two variables. The correlation coefficient varies from -1 to +1, a -1 indicating a perfect negative correlation, and +1 indicates perfect positive correlation. If the correlation is 0, the movements of the variables are said to have no correlation.

4.2.1. Correlation analysis of ROA and corporate governance mechanisms

Table 4.3 below has the correlation matrix showing the relationship of the dependent variable, ROA, with independent variables of board size, board gender diversity, board members' educational qualification, board members' business management experience, directors' industry specific experience, size of audit committee, capital adequacy of MFIs, financial leverage of MFIs and MFIs growth

Table 4.3 Correlation analysis of ROA and corporate governance mechanisms

Correlation	ROA	MFISZAC	MFISZ	MFILEV	MFIGRTH	MFIBSZ	MFIBIE	MFIBGD	MFIBEQ	MFIBBME	CAPADQCY
ROA	1.000000										
MFISZAC	-0.152095	1.000000									
MFILEV	0.383617	-0.560101	0.549791	1.000000							
MFIGRTH	-0.044118	-0.194127	-0.245298	0.034087	1.000000						
MFIBSZ	-0.090365	-0.355254	0.207299	-0.137250	0.005961	1.000000					
MFIBIE	0.431671	0.490436	-0.353366	-0.364778	-0.092946	-0.470593	1.000000				
MFIBGD	-0.267053	-0.090346	-0.224574	-0.412570	-0.102137	-0.440186	0.584701	1.000000			
MFIBEQ	0.166944	0.546465	-0.111246	-0.278984	-0.223828	-0.174143	0.339718	0.027645	1.000000		
MFIBBME	0.109944	0.348137	-0.260323	0.136172	0.022631	-0.283767	0.393726	0.512992	0.527290	1.000000	
CAPADQCY	-0.172531	0.154624	-0.278230	-0.558979	0.291717	0.387240	-0.094640	0.137167	-0.031794	-0.376322	1.000000

Source: Authors own Eviewsoutput, 2015

The correlation matrix table also shows the linear relationships between each independent variables and control variables used in the study. As indicated in the table 4.3, gender diversity of the board, size of audit committee and size of the board are negatively correlated with ROA. Size of audit committee and size of the board are in line with literatures indicating that the larger the size of the board and the audit committee, the lower would be performance of MFIs as measured by ROA, while gender diversity is in the other way around. From the control variables, growth and capital adequacy ratio of sample MFIs are also weakly and negatively correlated with ROA, indicating that MFIs with a bigger size and highly financed by equity capital, will have smaller utilization of their assets which doesn't consider the tradeoff between liquidity and profitability. On the other hand industry specific experience, education qualification, business management experience of the board of directors and leverage from the control variables are positively correlated with ROA indicating that board of directors with adequate qualification and having the appropriate industry specific and business management experience will have positive contribution for the performance of MFIs. However there is a risk and profitability tradeoff on MFIs leverage and the positive correlation might be to a certain level.

4.2.2. Correlation analysis of ROE and corporate governance mechanisms

Table 4.4 bellow presents the correlation analysis of corporate governance independent variables as well as control variables of the study with the dependent variable, ROE. The independent variables here also are board size, gender diversity of the board, board members' educational qualification, board members' business management experience, directors' industry specific experience and size of audit committee; and the control variables are capital adequacy ratio of MFIs, MFIs financial leverage and MFIs growth. Accordingly, leverage of sample MFIs and industry specific experience of board members have a strong positive correlation with ROE magnifying the fact that directors' financial skills and sector wise experience play a vital role to scale up performance. On the other hand size of audit committee, gender diversity and capital adequacy ratio from the control variables has a reasonably strong negative correlation with ROE, while board size, education qualification and growth have no correlation with ROE. Here, it is worth emphasizing that the negative correlation of gender diversity (inclusion of women members in the board) resulted from the study's correlation analysis is against the concept of

board diversity suggesting that boards should reflect the structure of the society and appropriately represent the gender, ethnicity and professional backgrounds to provide diverse perspectives (Joel, 2012) and many other literatures (Stephen, et.al, 2014, Mersland, 2008).

Table 4.4 Correlation analysis of ROE and corporate governance mechanisms

Correlation	ROE	MFISZAC	MFILEV	MFIGRTH	MFIBSZ	MFIBIE	MFIBGD	MFIBEQ	MFIBBME	CAPADQCY
ROE	1.00000									
MFISZAC	-0.32920	1.00000								
MFILEV	0.61303	-0.56010	1.00000							
MFIGRTH	-0.08197	-0.19413	0.03409	1.00000						
MFIBSZ	0.01970	-0.39058	-0.03213	0.02502	1.00000					
MFIBIE	0.49886	0.49044	-0.36478	-0.09295	-0.59175	1.00000				
MFIBGD	-0.43432	0.91235	-0.41257	-0.10214	-0.45381	0.58470	1.00000			
MFIBEQ	0.01749	0.87501	-0.27898	-0.22383	-0.56570	0.33972	0.78874	1.00000		
MFIBBME	-0.09046	0.34814	0.13617	0.02263	-0.81983	0.62683	0.51299	0.52729	1.00000	
CAPADQCY	-0.39471	0.15462	-0.55898	0.29172	0.40807	-0.09464	0.13717	-0.03179	-0.37632	1.00000

Source: Authors own Eviews output, 2015

4.3. Regression Results and Discussion

This section of the study presents the regression results of the effects of corporate governance mechanisms on the performance of MFIs measured by ROA and ROE. To enhance the quality of the econometric estimates, model diagnosis and robustness checks are made followed by presentation of regression results on the effects of corporate governance mechanisms on performance of sample MFIs. The regression analysis enables the researcher to empirically test the proposed hypothesis and to achieve the research objective. Due to the attractive statistical properties that made it one of the most powerful and popular methods of regression analysis (Gujarati, 2004), the method of least squares, OLS, estimation method was used in the two models by conducting the appropriate diagnosis tests.

4.3.1. Model Diagnosis

4.3.1.1.Heteroskedasticity

It is assumed that the error terms are homoscedastic, i.e., it assumed that the error terms have a constant variance otherwise they are said to be heteroskedastic. Validation of the null hypothesis that the error terms are homoscedastic is required because the presence of heteroskedasticity makes the standard errors wrong and consequently any inferences made could be misleading. To ensure that this assumption is no longer violated, the most popular method, the white test has to be and made Brooks (2008) recommended that not to reject the null hypothesis, the p-value of the F- and $\chi 2$ ('LM') versions of the test statistic and the p-value of the Scaled Explained SS must be higher than 0.05. The detail of this test is provided in the appendix at the end of the paper.

Table 4.5.Heteroskedasticity test for sample MFIs ROA

Heteroskedasticity Test: White

F-statistic	1.364844	Prob. F(25,34	0.2204
Obs*R-squared	27.34853	Prob. Chi-Square(25)	0.2414
Scaled explained SS	26.22062	Prob. Chi-Square(25)	0.2906

Source: Author's Eviews Output, 2015

Table 4.6.Heteroskedasticity test for sample MFIs ROE

Heteroskedasticity Test: White

F-statistic	1.666353	Prob. F(23,36)	0.1833
Obs*R-squared	42.59971	Prob. Chi-Square(23)	0.2798
Scaled explained SS	52.17308	Prob. Chi-Square(23)	0.0626

Source: Author's Eviews Output, 2015

In both tables of 4.5 and 4.6 above, Eviews presents three different types of tests for heteroskedasticity indicating that both the F- and $\chi 2$ ('LM') versions of the test statistic give the same conclusion that there is no evidence for the presence of heteroskedasticity, since the p-values are higher than 0.05. The third version of the test statistic, 'Scaled explained SS', as the name suggests is based on a normalized version of the explained sum of squares and also suggests that there is no evidence of heteroskedasticity as its p-value is reasonably higher than 0.05 and not significant.

4.3.1.2.Autocorrelation

A test of this assumption is required to validate the null hypothesis that the covariance between the error terms over time is zero. It is assumed that the distribution errors are uncorrelated with one another and that the errors are linearly independent of one another. If the errors are not uncorrelated with one another, it would be stated that they are 'autocorrelated' or that they are 'serially correlated (Brook, 2008). Accordingly, this study utilized the Durbin and Watson test

recommended by Brook (2008). The Durbin-Watson test statistic values in the main regression for the two models are 2.007134 and 1.964285 and critical values have been used with 50 observations and 7 explanatory variables (excluding the constant term). Accordingly, relevant critical lower and upper values for the test were found to be dL = 1.16 and dU = 1.59, respectively. The value of 4 - dU = 4 - 1.59 = 2.41. According to Brooks' (2008) recommendation, not to reject the null hypothesis of 'no autocorrelation', the DW test statistic should be in the non- rejection region of the upper limit (du) and 4-du. Consequently, the DW test statistic of 2.007134 and 1.842316 are between the upper limit (dU) which is 1.59 and the critical value of 4- dU, which is 2.41, indicating that DW test statistic is in the non- rejection region of the upper limit (du) and 4-du and there is no evidence for the presence of autocorrelation.

Durbin-Watson is a test for first orders autocorrelation and it tests only a relationship between an error and its immediate previous value. Therefore, in addition to DW test it was found desirable to conduct a Breusch-Godfrey Serial Correlation LM test to examine a joint test for autocorrelation that will allow examination of the relationship between error term and several of its lagged values at the same time. Thus, Breusch-Godfrey test was also conducted for the models and found no problem of autocorrelation as indicated in the table below.

Table 4.7. Breusch-Godfrey Serial Correlation LM Test for ROA

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.397714	Prob. F(2,38)	0.2596
Obs*R-squared	3.426153	Prob. Chi-Square(2)	0.1803

Source: Author's Eviews Output, 2015

Table 4.8.Breusch-Godfrey Serial Correlation LM Test for ROE

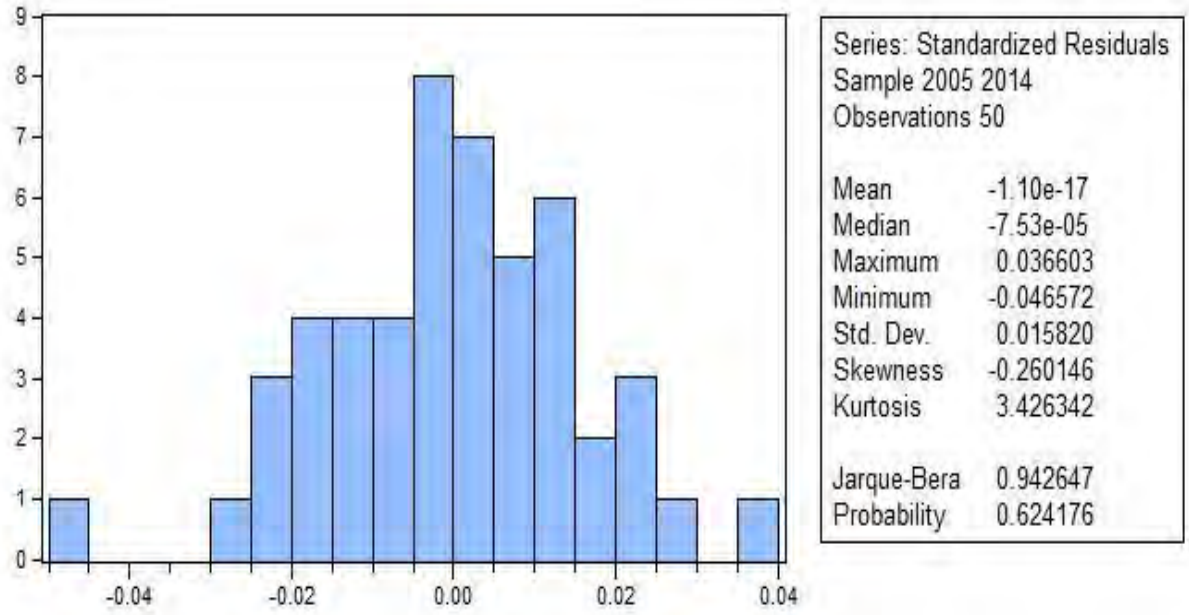
Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.101231	Prob. F(2,38)	0.3428
Obs*R-squared	2.739212	Prob. Chi-Square(2)	0.2542

Source: Author's Eviews Output, 2015

4.3.1.3.Normality Test

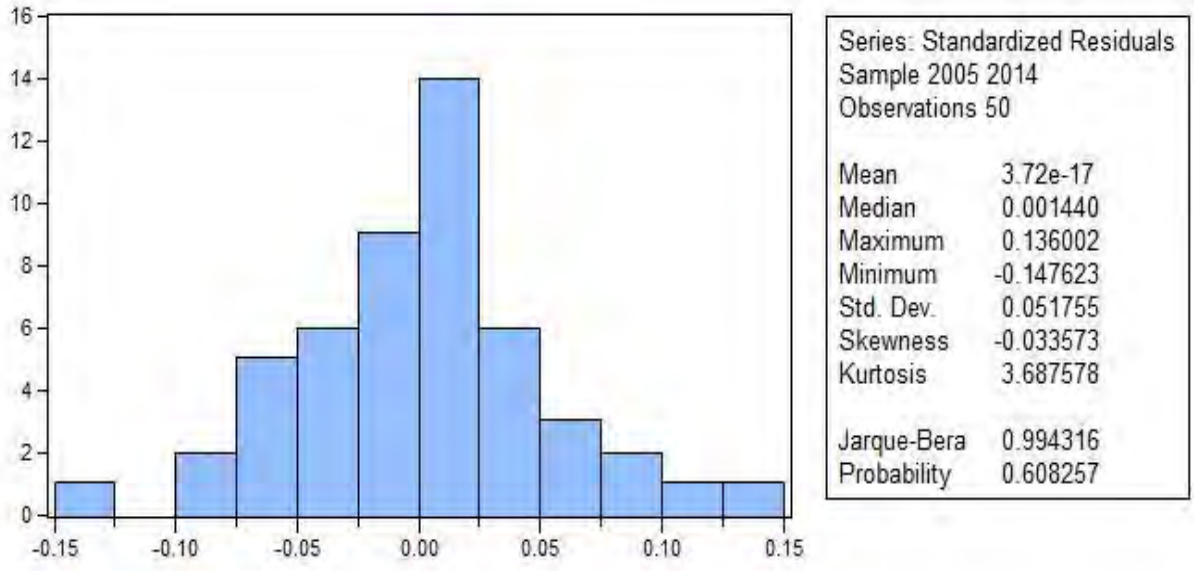
The normality assumption requires the disturbances to be normally distributed. According to Brooks (2008), if the residuals are normally distributed, the Jarque- Bera statistic would not be significant and the disturbances are said to be normally distributed. The study establishes a null hypothesis for residual normality and an alternate hypothesis for non-normal distribution error and testing the normality assumption required that not to reject the null hypothesis of normality at the 5% level, the *p*-value should be bigger than 0.05. As indicated in Figure 4.8 below, distribution of the return on asset and return on equity panel observation is symmetric about its mean and the Jarque-Bera statistic has a P-value of 0.62 and 60 implying that the p-value for the Jarque-Bera test for the model is greater than 0.05 that indicate the errors are normally distributed. Based on the statistical result, the study failed to reject the null hypothesis of normality at the 5% significance level.

Figure 4.1 Normality Test for ROA



Source: Author's Eviews output for normality test, 2015

Figure 4.2 Normality Test for ROE



Source: Author's Eviews output for normality test, 2015

Accordingly, from the normality figures indicated above, it is possible to conclude that there is no normality problem on the data used for this study.

4.3.1.4. Multicollinearity (Covariance matrix estimation)

A multicollinearity problem occurs when the explanatory variables are highly correlated with each other that makes difficult to estimate all of the coefficients in the model. Consequently testing the assumption of multicollinearity is made to ensure that the explanatory variables are not correlated with one another (Brooks, 2008). The assumption is that if the two variables are perfectly related to one another; together they contain only enough information to estimate one parameter, not two. According to Hailer et al (2006), multicollinearity could only be a problem if the pair-wise correlation coefficient among regressors is above 0.90. On the other hand, if a correlation coefficient matrix demonstrates correlations of .75 or higher among explanatory variables, there may be multicollinearity (Research Consulation.com, 2015). On the ground of these assumptions, the pair-wise correlation coefficient between regressors from covariance matrix estimation tables below shows that there is no evidence of multicollinearity in the model.

Table 4.9 Covariance matrix estimation for regressors of performance of MFIs

Correlation	MFISZAC	MFILEV	MFIGRTH	MFIBSZ	MFIBIE	MFIBGD	MFIBEQ	MFIBBME	CAPADQCY
MFISZAC	1.00000								
MFILEV	-0.56010	1.00000							
MFIGRTH	-0.19413	0.03409	1.00000						
MFIBSZ	-0.39058	-0.03213	0.02502	1.00000					
MFIBIE	0.49044	-0.36478	-0.09295	-0.59175	1.00000				
MFIBGD	0.91235	-0.41257	-0.10214	-0.45381	0.58470	1.00000			
MFIBEQ	0.87501	-0.27898	-0.22383	-0.56570	0.33972	0.78874	1.00000		
MFIBBME	0.34814	0.13617	0.02263	-0.81983	0.62683	0.51299	0.52729	1.00000	
CAPADQCY	0.15462	-0.55898	0.29172	0.40807	-0.09464	0.13717	-0.03179	-0.37632	1.00000

Source: Author's Eviews output, 2015

4.3.1.5.Redundant Fixed Effects Test

The pooled regression assumes that the intercepts are the same for each firm assumed. This may be an inappropriate assumption and Brooks (2008) recommended that we could instead estimate a model with firm fixed effects, which will allow for latent firm specific heterogeneity. The simplest types of fixed effects models allow the intercept in the regression model to differ cross-sectionally. To determine whether the fixed effects are necessary or not, this study run a redundant fixed effects test as recommended by Brooks (2008) and others and the results of the test are summarized in the following Table. The detail of this test is provided in the appendix at the end of the paper.

Table 4.10 Redundant fixed effect test for MFIs' financial performance measured by ROA

Redundant Fixed Effects Tests
Equation: EQ01
Test cross-section fixed effects

Effects Test	Statistic	d.f	Prob.
Cross-section F	15.301516	(4,40)	0.0000
Cross-section Chi-square	46.413961	4	0.0000

Source: Author's E-views Output, 2015

Table 4.11 Redundant fixed effect test for MFIs' financial performance measured by ROE

Redundant Fixed Effects Tests
Equation: EQ02
Test cross-section fixed effects

Effects Test	Statistic	d.f	Prob.
Cross-section F	11.860644	(4,40)	0.0000
Cross-section Chi-square	39.105142	4	0.0000

Source: Author's E-views Output, 2015

From Tables 4.9 and 4.10 above, it can be concluded that, the *p*-values associated with the test statistics are zero to 4 decimal places, indicating that it is better to employ the fixed effect model than a simple pooled regression model.

All the above tests of basic classical linear regression model assumptions for OLS estimation discussed so far prove that the results obtained from the regression models in this study are consistent, free from bias and efficient since all the assumptions hold and the next section presents the analysis and discussion of the outputs of the regressions.

4.3.2. Regression Results for Performance of MFIs (ROA and ROE)

Based on the regression result indicated in Table 4.11 and 4.12, the study found out that the estimated result of multiple regression analysis is at a fairly satisfactory level. This is evidenced by the fact that the R-squared is 62% and the Adjusted R-squared value is 55% for ROA and 76% and 72% for ROE. The values of the Adjusted R-squared for both models revealed the existence of good relationships between dependent and independent variables, where all independent variables can explain collectively about 55% and 72% of the performance of MFIs as measured by ROA and ROE, respectively, while the remaining 45% and 28%, respectively, of

the change in performance regression model is explained by other factors which are not included in the regression line. Both the R-squared and the Adjusted R-squared values of both models in this study are found to be higher implying that they have more explanatory power. Moreover for panel data, R-Squared greater than 20% is still large enough for reliable conclusions (Cameron Trivedi, 2009; Hsiao, 2007, cited in Nyamsogoro, 2010). Generally, the R^2 results indicate the overall Goodness-of-fit of the models used in this study.

The overall reliability and validity of the model was also further enhanced by the fact that the Prob (F-statistic) values being (0.000001 and 0.000000 for the two models), which indicates strong statistical significance. Thus the null hypothesis of the overall test of significance that all coefficients are equal to zero was rejected as the p-value was sufficiently low (less than 0.05).

Table 4.12: Regression Results for Determinants of Return on Asset

Dependent Variable: ROA
Method: Panel Least Squares
Date: 11/22/15 Time: 20:40
Sample: 2005 2014
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MFISZAC	-0.012056	0.012529	-0.962291	0.3418
MFILEV	0.006879	0.004242	1.621603	0.1126
MFIBSZ	-0.048954	0.017292	-2.831021	0.0244
MFIBIE	0.311003	0.061918	5.022822	0.0021
MFIBGD	-0.052312	0.063395	-0.825169	0.4141
MFIBEQ	0.302003	0.061918	4.877481	0.0001
MFIBBME	0.038954	0.016292	2.391003	0.0215
CAPADQCYR	0.002326	0.014316	0.162478	0.8717
C	-0.085089	0.050019	-1.701135	0.0965

R-squared	0.625054	Mean dependent var	0.038708
Adjusted R-squared	0.551893	S.D. dependent var	0.020711
S.E. of regression	0.013864	Akaike info criterion	-5.557470
Sum squared resid	0.007881	Schwarz criterion	-5.213306
Log likelihood	147.9368	Hannan-Quinn criter.	-5.426410
F-statistic	8.543623	Durbin-Watson stat	2.007134
Prob(F-statistic)	0.000001		

Source: Author's E-views Output, 2015

Table 4.13: Regression Results for Determinants of Return on Equity

Dependent Variable: ROE

Method: Panel Least Squares

Date: 12/02/15 Time: 22:33

Sample: 2005 2014

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MFISZAC	-0.569234	0.209861	-2.712433	0.0209
MFILEV	0.044659	0.014272	3.129203	0.0032
MFIBSZ	-0.014877	0.010940	-1.359794	0.1813
MFIBIE	0.071165	0.069064	1.030412	0.3089
MFIBGD	-0.469234	0.209861	-2.235923	0.0309
MFIBEQ	1.097782	0.260398	4.215781	0.0001
MFIBBME	-0.062937	0.064980	-0.968559	0.3384
CAPADQCYR	-0.036792	0.046622	-0.789165	0.4346
C	-0.518300	0.182357	-2.842223	0.0070

R-squared	0.769676	Mean dependent var	0.119565
Adjusted R-squared	0.724735	S.D. dependent var	0.087402
S.E. of regression	0.045856	Akaike info criterion	-3.165064
Sum squared resid	0.086214	Schwarz criterion	-2.820900
Log likelihood	88.12660	Hannan-Quinn criter.	-3.034004
F-statistic	17.12630	Durbin-Watson stat	1.842316
Prob(F-statistic)	0.000000		

Source: Author's E-views Output, 2015

The dependent variables explained here are financial performance of MFIs as measured by return on asset and return on equity. As indicated in table 4.11 and 4.12 above, size of audit committee (MFISZAC), size of the board of directors (MFIBSZ), industry specific experience of the board (MFIBIE), education qualification of the board (MFIBEQ) and business management experience of the board (MFIBBME) are found to be significant regressors of performance of sample MFIs as measured by ROA and; size of audit committee (MFISZAC), leverage of MFIs (MFILEV), gender diversity of the board (MFIBGD) and educational qualification of the board (MFIBEQ) are found to be significant regressors of performance of sample MFIs as measured by ROE. The interpretation of each explanatory variable is presented here after.

4.3.2.1.Board size

As indicated in the regression tables above, the coefficient of board size is negative for ROA (-0.359471) and the study found out a negative and statistically significant relationship between boards size (MFIBSZ) and performance of MFIs, as measured by return on asset, at 5 percent level of significance, implying that the numbers of board of directors' is negatively related with the financial performance of MFIs. For ROE, the coefficient of board size is also negative (-0.014877) indicating that the study found a negative relationship between board size and performance, as measured by ROE, but it is not statistically significant. In other words, the higher the number of board members for MFIs, the lower their financial performance as measured by ROA and ROE. The result can also be expressed in the way that an increase in the number of board members by one individual is expected to reduce performance by 4.8% and 1.5%, as measured by ROA and ROE, respectively. The possible explanation for this counterintuitive result can be that the independent directors and/or nominee directors free ride and do not bring any incremental skills to the business of microfinance that can enhance the returns to equity or a larger board finds it difficult to come to consensus and is slow in decision making (Durgavanshi, 2014).

The finding supports the argument of Jensen (1993) stating that an increase in board size leads to less effective communication and monitoring due to coordination and process problems

inherent in large board size. The result is also consistent with prior studies (Sanda et al., 2005; Adusei, 2011, Yermack, 1996; Al-Manaseer et al., 2012, Luo Lei, 2006, Uwuigbe, 2011) arguing that coordination, communication and decision-making problems increasingly impede company performance when the number of directors increase. Recalling the first hypothesis stating that board size has a significant and negative relationship with the financial performance of Microfinance Institutions, the finding supports this and the hypothesis is not rejected.

4.3.2.2. Gender diversity of the board

Over the years, the issue of gender diversity in business organizations has received increasing attention in both the academic literature and the popular press (Claude Francoeur et al., 2007) and as a result it became the focus area of this study, being one of the corporate governance mechanisms for MFIs. The study found out that gender diversity has negative coefficient (-0.052312 for ROA and -0.469234 for ROE) and showed a negative relationship with performance of MFIs as measured by both ROA and ROE. But it is not statistically significant when performance is measured by ROA, implying that gender diversity of a board has nothing to do with performance of MFIs or its contribution for performance is negligible. On the other side gender diversity is statistically significant when performance is measured by ROE, implying that it affects performance. Consequently the null hypothesis stating that Gender Diversity of a Board has significant and positive relationship with the financial performance of MFIs is rejected. The result is in line with some literatures and against with other studies. Shrader et al, 1997, found a negative impact of gender diversity on performance signaling less importance of the participation of women on boards. According to Claude Francoeur et al., 2007, this is especially true in a working environment dealing with peculiar types of diversity, such as racial, ethnic, and cultural diversity and under problematic organizational circumstances associated with greater risk of failure and criticism, which is also complex in nature and in an environment, dominated by an autocrat male CEO and board chairman. The result is also further justified by the fact that female directors might put forward the interests of employees and other stakeholders who have an impact on and are impacted by the company's performance (Kramer et al., 2006). From an agency-theoretic standpoint, when one considers the overall impact of gender diversity on the various duties being assumed by a corporate board, it is thus impossible to tell, whether

promoting greater female participation will improve or impair corporate governance and, as a direct consequence, corporate financial performance. The result is also against some empirical findings which are indifferent with either negative or positive relationships of gender diversity with firm performance and argue that a preference for women in corporate board nominations is ‘‘neutral,’’ as far as financial performance is concerned (Claude Francoeur et al., 2007). Other studies conducted on the same topic revealed that inclusion of women directors in the board has a positive and significant relationship with performance (Carter et al. 2003, Catalyst, 2004, Uwuigbe 2011, Chenuos et, al., 2014, Joel, 2014).

4.3.2.3. Educational qualification of board members

Board members educational qualification (MFIBEQ) explains the variations of the financial performance of MFIs with a coefficient of 0.302003 and 1.097782 for ROA and ROE, respectively. It is statistically significant at 5 and 1 percent level of significance and has appositive impact on performance of MFIs as measured by ROA and ROE, respectively. The result indicates that the high proportion of directors who had college degree or higher have a significant positive influence on the financial performance of MFIs. On the other way the higher the number of directors who had college degree or above sitting on the board, the higher would be the financial performance of MFIs. This is justified by the fact that the presence of qualified board of directors in the board plays a vital role in monitoring and overseeing the activities and strategical undertakings of a firm. Qualified directors can also easily understand and interpret different reports prepared by management. The result is in line with the proposed null hypothesis stating that Educational qualification of the board members has a significant and positive relationship with the financial performance of MFIs.

The result is in line with the finding revealed by Amran (2011), Yasser (2011) and Yenesew (2012). A positive relationship also found between board members’ educational qualification and performance of MFIs according to Joel (2012). All argue that directors with higher education are better in managing the business operation and critically analyzing management’s plans and reports and controlling agency problems than their less educated counterparts. According to their argument, educational qualification affects the oversight and monitoring role of boards of

directors and this also reduces agency cost as well, because directors are required to make an informed decision which requires a thorough understanding. The result also supports the view that educational qualification is potentially important to analyze and interpret appropriate information and data which is essential for the efficient strategic guidance of the operation of MFIs and the effective control or monitoring of management by boards of directors

4.3.2.4. Business Management Experience of the boards of directors

Business management experience of the board of directors has a positive coefficient (0.038954) and it is statistically significant at 5 percent level of significance in terms of explaining the variation on performance as measured by ROA, indicating that having boards of directors with appropriate level of business management experience would have a positive contribution for the performance of MFIs as measured by ROA. However, business management experience of the board of directors has a negative coefficient (-0.062937) implying that business management experience has an inverse relationship with performance of MFIs as measured by ROE but it is not statistically significant, indicating that business management experience would not play a significant role in reducing or increasing performance of MFIs as measured by ROE. The positive result is in line with the hypothesis stating that educational qualification of the board members has a significant and positive relationship with the financial performance of MFIs. Consequently the study does not reject the null hypothesis. This is justified by the fact that MFIs are operating in an industry characterized by fierce competition, even though they are serving the people who are not served by conventional banks. Dealing with the needs and requirements of this group of people, mostly running micro and small businesses, requires in-depth knowledge in terms of analyzing loan requests, business proposals, feasibility studies and other relevant and necessary business management skills.

Unless boards of directors of MFIs have the required level of business management skill, it might be difficult for them to run a well performing MFI and discharge their fiduciary, strategic, supervisory and management responsibilities (Clarkson, et. al, 1997). The result of this study regarding the impact of board's business management experience on performance of MFIs as measured by ROA is contrary with the results of some previous studies (Yenesew, 2012,

Abrham, 2014) claiming that business management experience is insignificant in explaining the variation in return on asset, which is also the result of this study when performance is measured by ROE. The explanation given by these studies for this variation is that the nature of microfinance industry is different from other industry and MFIs are generally more difficult to manage than non-financial firms. Thus, the general business management experience of directors may not be that much relevant or significant in improving financial performance due to the complex and special nature of MFIs, as many of them are dealing with micro businesses and poor people having limited loan repayment capacity. The sector is also highly regulated. This means directors are required to deeply understand the microfinance business to influence performance significantly rather than to have general business understanding.

4.3.2.5. Industry specific experience of directors

The coefficient of industry specific experience of board of directors (MFIBIE) is positive (0.311003 and 0.071165 for ROA and ROE, respectively) indicating that this variable has a positive association with performance of MFIs as measured by ROA and ROE. It is also statistically significant at 5 percent level of significance when performance is measured by ROA but insignificant when performance is measured by ROE. This implies that the higher the proportions of directors who had earlier working experience in the microfinance industry, the higher will be the financial performance, as measured by return on asset or if an MFI employs board of directors having the relevant industry specific experience, it can increase its performance by about 31%. Consequently the result supports the hypothesis stating that board members' Industry specific experience has a significant and positive relationship with the financial performance of MFIs as measured by ROA but it is inconclusive or the impact is insignificant when performance is measured by ROE and the null hypothesis is not rejected. Many literatures also support the finding and justify that as intellectual assets are not easily imitable by rivals, having board members with industry specific experience presumably results with a competitive advantage of firms possessing them; and experienced board members may have also an advantage in anticipating future business opportunities, threats, competitive pressures and changes in technology and customer demand (Benjamin, et. al, 2014). However, board members of most MFIs in Ethiopia do not have awareness of the concept of corporate

governance and hence do not apply best practices of corporate governance in their respective MFIs (Ayalew, 2007). Moreover board of directors of almost all governmental MFIs are political assignees coming from other sectors and may not have a value added or acquired by working in similar industry before joining their current serving MFI. This is supported by the result of this study when performance is measured by ROE (the p-value being insignificant for ROE).

According to Durgavanshi, 2014, skillful board members are always a strategic resource for a firm. They can provide guidance on nuanced operational aspects (retail financial services, product development and customer relationship management) and make the MFI competitive. Board members with financial and banking skills can also contribute to the improvement of the MFIs internal controls and operational processes (Durgavanshi, 2014).

4.3.2.6. Size of audit committee

Independent Audit Committee, a committee comprised mostly of independent directors who is responsible for internal control and compliance, is an important corporate governance mechanism which is useful to mitigate the risk of fraud and misrepresentation of information and is expected to improve monitoring and transparency in operations and lead to timely and accurate reporting of the loan defaults and poor performance in an MFI (Durgavanshi, 2014). This is the fact that necessitates size of audit committee to be part of this study.

The result of this study showed that size of audit committee has a negative coefficient (-0.012056 and -0.569234 as performance is measured by ROA and ROE, respectively) indicating that when the size of the audit committee increased by an individual, the performance of the MFI decreases by 1.2%, as measured by ROA. However it is not statistically significant implying that size of audit committee has no significant influence on the performance of MFI. The study also revealed that size of audit committee has a negative relationship with performance, as measured by ROE and is statistically significant at 5 percent level of significance. The result is consistent with previous empirical studies (Jensen &Meckling, 1976); Kyereboah-Coleman, 2007; Aldamen, et al., 2011). The result also supports the notion that a certain minimum number of audit committee members may be relevant to the quality of financial reporting and to enhance financial

performance but free-riding and difficulty to reach in consensus may affect financial performance when the size gets larger and larger (Aldamen, et al., 2011). Accordingly the result is inconclusive in terms of performance measured by ROA since it is not statistically significant and it is not also in line with the hypothesis stating that Size of audit committee in a board has a significant and negative relationship with the financial performance of MFIs, as measured by ROA.

4.3.2.7. MFI's Leverage

Leverage of MFI's is one of the three control variables used in this study to analyze the relationship between variables other than corporate governance mechanisms and performance of MFIs. The result showed that leverage of has a positive relationship, with a coefficient of 0.006879 and 0.044659 with performance of MFIs, as measured by ROA and ROE, respectively. It is also statistically significant at 5 percent level of significance for ROE, even though the variable is not statistically significant for ROA. Consequently the effect of MFI's leverage on performance of MFIs is inconclusive if performance is measured by ROA, but it has a negative and statistically significant relationship with performance as measured by ROE. This result, when performance is measured by ROA, is against the financial theory that states the presence of optimality of debt ratio (leverage) in firms' capital structure and beyond this ratio shows negative impact on firms' financial performance, but the result is in line with this theory if performance is measured by ROE. However, due to the very nature of the sector (financial) it could be argued that the more MFIs mobilize deposit, which is effectively increasing their debt ratio, the more they will have money to be lent and generate more interest income, which is the main source of income for financial institutions which results an enhanced performance.

The result of this study is both in support of and against the result of some of previous empirical studies. Leverage had statistically significant and negative relationships with firms' financial performance (Sekhar, 2006) since MFIs are required to pay more interest expense. According to Weill (2003), who carried out new empirical evidence on a major corporate governance issues, the relationship between leverage and corporate performance found mixed evidence depending on the country: while significantly negative for firms in Italy, the relationship between leverage and corporate performance is significantly positive for firms in France and Germany. This tends

to support the influence of some institutional characteristics which are specific to countries on the relationship of corporate governance and performance. For instance in Ethiopia board directorship is a political assignment for government owned MFIs. Majumdar and Chhibber (1999) also tested the relationship between leverage and corporate performance on a sample of Indian companies by adopting an accounting measure of profitability, return on net worth, to evaluate performance and they observed a significant negative association between leverage and corporate performance. But the study on Japanese firms by Joe et.al, (1994) found a positive relationship with leverage and firm performance.

4.3.2.8. Capital adequacy ratio of MFIs

According to the Uniform Financial Institutions Rating System (1997), Capital adequacy is the capital expected to maintain balance with the risks exposure of the financial institutions such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution‘s debt holder or depositor. Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy ratio (CAR), and maintaining an adequate level of capital is a critical element. CAR is an indicator of an MFI’s ability to meet its obligations and absorb unexpected losses (Ibid). It measures the amount of capital relative to risk-weighted assets that a financial institutions should have. Capital adequacy ratio is measured as the ratio of shareholders equity to rescued assets of the MFIs. The result of the study revealed that capital adequacy ratio has a positive coefficient (0.002326) and a negative coefficient (-0.036792) as performance is measured by ROA and ROE, respectively); indicating that it has a positive relationship with performance of MFIs as measured by ROA and a negative relationship with performance as measured by ROE, but it is not statistically significant for both performance measures. The positive relationship is expressed as: a one percent increase of a capital adequacy ratio will result an increase of performance of MFIs by 0.02 percent, as measured by ROA. On the other side, the negative relationship is expressed as: a one percent increase of a capital adequacy ratio will result a decrease of performance of MFIs by 3.6 percent, as measured by ROE. The positive relationship result also indicated the fact that the more MFIs are financed by their shareholders, the more would be their performance overcoming the risk associated with low equity capital, and it is vice versa for the negative relationship of CAR and performance of MFIs,

as measured by ROE. However the p-values are not statistically significant for both performance measures and its overall effect on performance is inconclusive.

The result of existence of positive relationship between CAR and performance of MFIs supports the theory and is in line with some empirical studies. There exists positive relationship between capital adequacy and firm performance (Alemu, 2015), but according to (Olalekan, et.al, 2013),there is no a significant relationship between banks capital adequacy and performance of MFIs, which is in line with the result of this study. According to Mulualem, 2015, capital adequacy ratio has a negative relationship with performance, which is also in line with the result of this study as performance is measured by ROE; and capital adequacy ratio, as a measure of external corporate governance mechanism, had statistically significant positive effect on firm performance (Ashenafi et, al, 2013), which is in contrary to the result of this study.

In conclusion, it was found that all corporate governance and control variables do not influence the two financial performance indicators (ROA and ROE) in the same direction and their degrees of association or level of significance also differ; and the direction and the extent of the impact of some corporate governance mechanisms are dependent on the performance measure being examined. This is due to the fact that financial performances indicators do not equally indicate the performance of MFIs, because each financial performance indicator uses different formulas with their limitations to indicate the MFI's performance. For instance return on asset indicates the overall efficiency of management and shows whether the MFI uses assets efficiently and effectively in order to generate income and enhance performance, on the other hand return on equity provides information as to how well management is using the funds invested by shareholders without considering the effect of gearing of the firm.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

In this final chapter, a conclusion of the study is made followed by recommendation. Direction is also laid down for further study.

5.1. Conclusion

This study tried to analyze the effects of corporate governance mechanisms on performance of five sample MFIs in Ethiopia, with a data set covering ten years period from 2005 to 2014. This study made use of secondary data in analyzing and interpreting the relationship between corporate governance mechanisms and financial performance of the five sample MFIs. The secondary data was obtained basically from audited financial statements of selected MFIs and supplementary data were also collected from Association of Ethiopian Microfinance (AEMFI). The Pearson Correlation and regression analysis was also used to find out whether there is a relationship between the variables to be measured (i.e. corporate governance and MFIs financial performance) and also to find out whether the relationship is significant or not. The variables that were used as corporate governance mechanisms were size of the board, gender diversity of the board, educational qualification of the board, industry specific experience of the board size of the audit committee of the board and business management experience of the board as independent variables and MFIS's leverage and capital adequacy ratio were used as control variables. Accounting measures of performance (return on equity and return on asset) were used as the dependent variables even though decisions were later taken based on return on asset since shareholders of the sample MFIs are nominal shareholders, which have no real shareholding.

Based on the descriptive statistics of the study, the financial performance of sample MFIs are 3.9 percent and 12 percent as measured by return on asset and return on equity, respectively, indicating that sample MFIs are better in utilizing sharehilders' funds than their assets. This is much better than the average ROA of 2.03 percent for Africa from resulted from 2004 to 2011, according to mixmarket.com. In terms of overall corporate governance mechanisms, sample

MFIs are generally characterized by having an average board size of 8, an average of 17.9 percent female directors, 83.1 percent of directors holding college degree or higher, 44.1 percent of directors who had business management experience and 12 percent of the board of directors having industry specific experience.

The correlation analysis of the study revealed that gender diversity of the board, size of audit committee and size of the board are negatively correlated with ROA. From the control variables, growth and capital adequacy ratio of sample MFIs are also weakly and negatively correlated with ROA, indicating that MFIs with a bigger size and highly financed by equity capital, will have smaller utilization of their assets which doesn't consider the tradeoff between liquidity and profitability. On the other hand industry specific experience, education qualification, business management experience of the board of directors and leverage from the control variables are positively correlated with ROA indicating that board of directors with adequate qualification and having the appropriate industry specific and business management experience will have positive contribution for the performance of MFIs. On the other side Leverage of sample MFIs and industry specific experience of board members have a strong negative correlation with ROE and size of audit committee, gender diversity and capital adequacy ratio from the control variables have a reasonably strong negative correlation with ROE, while board size, education qualification and growth have no correlation with ROE.

According to the regression result of the study, from the explanatory variables: size of audit committee (MFISZAC), size of the board of directors (MFIBSZ), industry specific experience of the board (MFIBIE), education qualification of the board (MFIBEQ) and business management experience of the board (MFIBBME) are found to be significant regressors of performance of sample MFIs as measured by ROA and; size of audit committee (MFISZAC), leverage of MFIs (MFILEV), gender diversity of the board (MFIBGD) and educational qualification of the board (MFIBEQ) are found to be significant regressors of performance of sample MFIs as measured by ROE.

The study found a negative relationship between board size (MFIBSZ) and performance of MFIs, as measured by return on asset and return on equity being statistically significant for ROA

and insignificant for ROE. Accordingly, it is concluded that board size significantly and negatively affects financial performance of MFIs as measured by return on asset. As far as gender diversity of the board is concerned, no statistically significant relation was found with performance of MFIs, as measured by ROA, implying that female directors contribution for the performance of MFIs is negligible, which is assumed to be due to the very small numbers of female directors in the board as observed in the descriptive statistics which does not permit them to be powerful enough to make a difference in monitoring and overseeing the activities of the management. While it has negative relationship with performance for both performance measures, it is statistically significance for ROE.

Educational qualification of the boards is found to be statistically significant at 5 and 1 percent level of significance and has appositive impact on performance of MFIs as measured by ROA and ROE, respectively. The result indicates that the high proportion of directors who had college degree or higher have a significant positive influence on the financial performance of MFIs. Different empirical studies justified this by the fact that the presence of qualified board of directors in the board plays a vital role in monitoring and overseeing the activities and strategical decisions of a firm and qualified directors can also easily understand and interpret different reports prepared by management, which are vital to enhance performance. Regarding the business management experience of the board of directors, it is statistically significant at 5 percent level of significance in terms of explaining the variation on performance as measured by ROA, indicating that having boards of directors with appropriate level of business management experience would have a positive contribution for the performance of MFIs as measured by ROA. However, it has a negative coefficient (-0.062937) as performance is measured by ROE, implying that business management experience has an inverse relationship with performance of MFIs but it is not statistically significant, indicating that business management experience would not play a significant role in reducing or increasing performance of MFIs as measured by ROE. Consequently it is concluded that educational qualification of the board members has a significant and positive relationship with the financial performance of MFIs as supported by many empirical studies.

The study also found that industry specific experience of the board of directors has a positive association with performance of MFIs as measured by both performance measures (ROA and ROE) and is statistically significant at 5 percent level of significance when performance is measured by ROA but insignificant when performance is measured by ROE. The result is stated in the way that the higher the proportions of directors who had earlier working experience in the microfinance industry, the higher will be the financial performance, as measured by return on asset. Accordingly it is concluded that industry specific experience of the board of directors is vital for MFIs as it has a significant and positive influence on performance. The result is also supported by many previous empirical studies. As far as size of audit committee is concerned, the result of this study revealed that it has a negative relationship with performance, as measured by both measures. This indicates that the larger the size of an audit committee in the board; the lower will be performance of MFIs. However it is not statistically significant with ROA implying that size of audit committee has no significant influence on the performance of MFI. The negative relationship of size of audit committee with performance, as measured by ROE, is statistically significant at 5 percent level of significance. Based on these findings it is concluded that the effect of size of audit committee of a board on performance is inconclusive and has no significant influence.

Generally, the effect of corporate governance mechanisms on performance of MFIs is characterized by:

- Male dominated board and low or negative effect of gender diversity of a board on performance of MFIs.
- An adverse effect of having unreasonably large size of boards on performance of MFIs resulted from less effective communication and monitoring due to coordination and process problems.
- Existence of a significant and positive influence of the high proportion of directors who had college degree or higher on the financial performance of MFIs
- A positive and significant influence of board of directors' business management experience on performance of MFIs.

- Existence of positive and significant effect on performance to have directors who had previous experience in the industry in the board.
- An adverse effect of having unreasonably large size of audit committee in the board on performance of MFIs.

5.2. Recommendations

The focus of this study was to examine the effect and relationship of corporate governance mechanisms on performance of microfinance institutions in Ethiopia. Based on the result of the study, the following recommendations have been given.

- ❖ Governance in the financial sector is more important than any other sector and as a result Microfinance institutions need to strengthen the corporate governance principles which guide the responsibilities of the board of directors, the chairpersons, CEOs, senior management, board appointed committees, auditors, shareholders and regulators. Because governance is said to be all about effective, transparent and accountable administration of affairs of an institution by its management, while protecting the interests of its stakeholders including shareholders, creditors, regulators and the public. The reason why establishing good system of corporate governance in the MFIs is more important than any other sector is that:

    - Like the conventional commercial banks, much of MFIs' liabilities comprise funds raised mainly through deposits from the public, mainly the poor, unlike other normal business entities which are funded mainly through shareholders' funds, consequently the business of raising public deposits places greater fiduciary responsibilities on MFIs and its directors, since depositors' funds need to be safeguarded.

    - MFIs serve as financial intermediaries by lending and investing the funds mobilized and funding economic activities of others.

- As financial institutions, MFIs are able to undertake their business operations as a result of public trust and faith in the stability and soundness of the financial sector in particular and the country's regulatory system in general and; loss of public confidence in the finance sector could be infectious and could easily lead to systemic financial crisis situations, like what happened in 2008.

❖ MFIs should give attention for the board size to be small in number, adhering to the minimum requirement of the National Bank of Ethiopia which is seven, to an optimal level with better educational qualification, since small board size with better educational qualification is more effective in monitoring and overseeing the management and help to improve performance. Moreover, the larger the number of board of directors the less will be its contribution for performance, as revealed by this study, necessitates the need to have small number of board of directors.

❖ This study revealed that the boards of MFIs are dominated by male directors and board gender diversity is very limited. Moreover it is found out that inclusion of female directors in a board has nothing to do with performance of MFIs or its contribution for performance is negligible and inconclusive. This is due to the fact that female directors may find it hard to contribute ideas that could enhance performance in an environment dominated by male CEO and board chairman, which is the case for many sample MFIs. Thus, much should be done to incorporate an appropriate level of female directors in the board and improve the gender balance of boards in MFIs with a great care about their educational qualification and competency.

❖ Education qualification of the board of directors is found to be contributing positively for the performance of MFIs. Thus, MFIs, as far as possible, should consider having board of directors with a college degree or above.

- It is good for MFIs to have board of directors with business management experience because having boards of directors with appropriate level of business management experience would have a positive contribution for the performance of MFIs.

- Industry specific experience of the board of directors plays a vital role for MFIs to get a competitive advantage and enhance performance. Consequently MFIs are recommended to have board of directors having an industry specific experience.

- Last, but not least, it is recommended that that MFIs should make their audit committee size small, so that there would be a smooth communication and a simple and transparent decision making process, which contributes in improving their performance. Because, as this study revealed, large size of an audit committee negatively affects performance and may not play its role effectively in mitigating the risk of fraud and misrepresentation of information and improve monitoring and transparency in operations which lead to timely and accurate reporting of the loan defaults and poor performance in an MFI.

5.3. Implications of the study

This study is supposed to have different implications for the government, for the MFIs and for the public. For the government it would have a great deal for its regulatory body, national bank of Ethiopia, in its effort to establish a sound legal framework for corporate governance that can lay a ground for MFIs to maintain sustainable commercial services on a permanent basis and expand their scope of operations and outreach and; an appropriate financial infrastructure, such as information systems and training facilities. For MFIs, it creates awareness on best corporate governance practices and relationships of corporate governance mechanisms on their performance. Finally for the public; so long as MFIs understand the effect of corporate governance mechanisms on their performance and adopt a sound corporate governance structure, public trust and confidence enhances that enable MFIs to undertake their business operations in a stable and sound financial sector.

5.4. Suggestions for future research

Limitations and constraints of the study have prompted suggestions for further research as listed below:

- This study has gone some distance to examine corporate governance mechanisms and corporate performance of MFIs in limited context. However, further research could be done and explore the relationship in more detail in different categories of NGO supported, government owned and privately owned MFIs. Since this study also focused only on limited number of MFIs in the finance sector, it would be beneficial to extend the study and have a clearer understanding of corporate governance roles in other types of sectors, mainly in the private sector where corporate governance is not well developed. Such a study could also address the similarities and differences of the roles and legal requirements of CG in different sectors and organizations.

- This study could also be used as a starting point and could be possible to study and come up with a better insight and inference by applying several extensions to this study such as further increasing the study population and the sample size to the whole microfinance sector, taking also evidence from other industries and increasing years of observations. The relationship between corporate governance mechanisms and firms' financial performance can also be further explained if future researchers conduct a study by including more and unstudied corporate governance variables.

- The root cause for the disappointing number of women directors in the board of current MFIs, which is revealed by this study, is also worth studying for future researchers in the area. Empowering women with appropriate level of educational qualification and enabling them contribute for the performance of MFIs should also be the focus area for future research.

- Further research may also be required on the behavioral aspects of boards of directors that require the need to go beyond the quantitative research, which is yielding a mixture

of results to perhaps a more qualitative approach as to how boards work. This might even need regular attendance of the meetings of the board, like what is happening in developed countries. Expanding this current research into a wider study of board dynamics and decision making would also be a starting point in developing a better framework in understanding the effect of corporate governance mechanisms on performance of MFIs.

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Appendices

Appendix 1: Data input to performance regression models as measured by ROA & ROE

MFI ID	Year	MFI ACSZ	MFI LEV	MFI GRTH	MFI BSZ	MFI BIE	MFI BGD	MFI BEQ	MFI BBME	MFI CAR
1	2005	0.375	0.950	0.064	8.000	0.000	0.000	0.875	0.250	0.206
1	2006	0.375	1.320	0.064	8.000	0.000	0.000	0.875	0.250	0.242
1	2007	0.375	1.680	0.064	8.000	0.000	0.125	0.875	0.250	0.274
1	2008	0.375	1.890	0.064	8.000	0.000	0.125	0.875	0.250	0.304
1	2009	0.375	1.950	0.060	8.000	0.000	0.125	0.875	0.250	0.351
1	2010	0.375	2.180	0.036	8.000	0.000	0.125	0.875	0.250	0.306
1	2011	0.375	2.210	0.393	8.000	0.000	0.125	0.875	0.250	0.314
1	2012	0.375	2.580	0.404	8.000	0.000	0.125	0.875	0.250	0.298
1	2013	0.375	2.940	-0.144	8.000	0.000	0.250	0.875	0.375	0.276
1	2014	0.375	3.350	0.084	8.000	0.000	0.250	0.875	0.375	0.251
2	2005	0.250	0.896	1.564	8.000	0.000	0.000	0.625	0.300	0.642
2	2006	0.250	1.289	0.611	8.000	0.000	0.000	0.625	0.300	0.473
2	2007	0.250	2.724	0.610	8.000	0.000	0.000	0.625	0.300	0.313
2	2008	0.250	3.528	0.845	8.000	0.000	0.000	0.625	0.300	0.237
2	2009	0.250	3.073	0.240	8.000	0.000	0.000	0.625	0.300	0.279
2	2010	0.250	3.136	0.298	8.000	0.000	0.000	0.625	0.300	0.294
2	2011	0.250	2.797	0.451	10.000	0.000	0.000	0.625	0.300	0.301
2	2012	0.250	2.687	0.269	10.000	0.000	0.000	0.625	0.500	0.304
2	2013	0.250	2.988	0.429	10.000	0.000	0.000	0.625	0.500	0.274
2	2014	0.250	4.112	0.492	10.000	0.000	0.000	0.625	0.500	0.226
3	2005	0.429	0.750	0.143	7.000	0.429	0.286	0.857	0.714	0.191
3	2006	0.429	0.820	0.127	7.000	0.429	0.286	0.857	0.714	0.155
3	2007	0.429	0.920	0.185	7.000	0.429	0.286	0.857	0.714	0.201
3	2008	0.429	0.950	0.184	7.000	0.429	0.286	0.857	0.714	0.193
3	2009	0.429	0.980	1.030	7.000	0.429	0.286	0.857	0.714	1.052
3	2010	0.429	1.060	0.521	7.000	0.429	0.286	0.857	0.714	0.491
3	2011	0.429	1.190	0.650	7.000	0.429	0.286	0.857	0.714	0.546
3	2012	0.429	1.100	0.102	7.000	0.429	0.286	0.857	0.714	0.093
3	2013	0.429	1.860	0.480	7.000	0.429	0.286	0.857	0.714	0.258
3	2014	0.429	1.940	0.311	7.000	0.429	0.286	0.857	0.714	0.160
4	2005	0.400	0.426	0.282	11.000	0.000	0.200	0.800	0.000	0.770
4	2006	0.400	0.411	0.225	11.000	0.000	0.200	0.800	0.000	0.886
4	2007	0.400	0.492	0.541	11.000	0.000	0.200	0.800	0.000	0.818

4	2008	0.400	0.424	0.502	11.000	0.000	0.200	0.800	0.000	0.781
4	2009	0.400	0.396	0.234	11.000	0.000	0.200	0.800	0.000	0.808
4	2010	0.400	0.542	0.401	11.000	0.000	0.200	0.800	0.000	0.744
4	2011	0.400	1.037	0.435	11.000	0.000	0.200	0.800	0.000	0.580
4	2012	0.400	1.616	0.472	11.000	0.000	0.200	0.800	0.000	0.447
4	2013	0.400	1.463	0.310	11.000	0.000	0.200	0.800	0.000	0.473
4	2014	0.400	1.619	0.629	11.000	0.000	0.200	0.800	0.000	0.431
5	2005	0.429	2.601	0.483	5.000	0.000	0.286	1.000	0.857	0.311
5	2006	0.429	2.734	1.554	5.000	0.000	0.286	1.000	0.857	0.276
5	2007	0.429	2.186	0.312	5.000	0.000	0.286	1.000	0.857	0.336
5	2008	0.429	1.976	0.192	5.000	0.000	0.286	1.000	0.857	0.349
5	2009	0.429	2.051	-0.421	5.000	0.000	0.286	1.000	0.857	0.347
5	2010	0.429	1.698	1.190	5.000	0.000	0.286	1.000	0.857	0.407
5	2011	0.429	1.284	0.129	5.000	0.429	0.286	1.000	0.857	0.462
5	2012	0.429	1.214	0.054	5.000	0.429	0.286	1.000	0.857	0.488
5	2013	0.429	1.359	0.273	5.000	0.429	0.286	1.000	0.857	0.438
5	2014	0.429	1.292	0.290	5.000	0.429	0.286	1.000	0.857	0.454

Source: Own Computation

Appendix 2: Heteroskedasticity Test: White, for ROA model

Heteroskedasticity Test: White

F-statistic	1.364844	Prob. F(23,26)	0.2207
Obs*R-squared	27.34853	Prob. Chi-Square(23)	0.2414
Scaled explained SS	26.22062	Prob. Chi-Square(23)	0.2906

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 11/22/15 Time: 21:47
Sample: 1 50
Included observations: 50
Collinear test regressors dropped from specification

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.012752	0.031407	0.406017	0.6881
MFISZAC^2	0.093929	0.116176	0.808510	0.4261
MFISZAC*MFIBSZ	-0.002310	0.003292	-0.701646	0.4891
MFISZAC*MFILEV	0.002443	0.008825	0.276782	0.7841
MFISZAC*CAPADQCYR	-0.022641	0.072229	-0.313456	0.7564
MFISZAC*MFIBIE	-0.016930	0.018114	-0.934616	0.3586
MFISZAC*MFIGRTH	-0.001687	0.006017	-0.280340	0.7814
MFISZAC	-0.038673	0.125461	-0.308246	0.7604
MFIBSZ^2	-5.18E-05	0.000159	-0.326195	0.7469
MFIBSZ*MFILEV	0.000120	0.000499	0.239937	0.8123
MFIBSZ*CAPADQCYR	0.003867	0.003555	1.087540	0.2868
MFIBSZ*MFIGRTH	-0.000116	0.000565	-0.205812	0.8385
MFILEV^2	4.04E-05	0.000311	0.130094	0.8975
MFILEV*CAPADQCYR	0.001647	0.003795	0.433891	0.6679
MFILEV*MFIBIE	0.000249	0.001699	0.146578	0.8846
MFILEV*MFIGRTH	0.000842	0.001067	0.789551	0.4369
MFILEV	-0.002407	0.006149	-0.391430	0.6987
CAPADQCYR^2	-0.003400	0.006400	-0.531215	0.5998
CAPADQCYR*MF	0.018363	0.017698	1.037620	0.3090

IBIE				
CAPADQCYR*MF IGRTH	0.005206	0.006682	0.779085	0.4430
CAPADQCYR	-0.025103	0.041675	-0.602347	0.5522
MFIBIE*MFIGRTH	-0.002151	0.002375	-0.905860	0.3733
MFIGRTH^2	-0.000666	0.000433	-1.537813	0.1362
MFIGRTH	-0.001719	0.006335	-0.271315	0.7883

R-squared	0.546971	Mean dependent var	0.000289
Adjusted R-squared	0.146214	S.D. dependent var	0.000470
S.E. of regression	0.000434	Akaike info criterion	-12.34033
Sum squared resid	4.90E-06	Schwarz criterion	-11.42256
Log likelihood	332.5083	Hannan-Quinn criter.	-11.99084
F-statistic	1.364844	Durbin-Watson stat	1.888025
Prob(F-statistic)	0.220730		

Source: Own Eviews output, 2015

Appendix 3: Heteroskedasticity Test: White, for ROE model

Heteroskedasticity Test: White

F-statistic	1.666353	Prob. F(38,11)	0.1833
Obs*R-squared	42.59971	Prob. Chi-Square(38)	0.2798
Scaled explained SS	52.17308	Prob. Chi-Square(38)	0.0626

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 11/22/15 Time: 22:03
Sample: 1 50
Included observations: 50
Collinear test regressors dropped from specification

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.200233	2.617915	-0.076486	0.9404
CAPADQCYR^2	0.009825	0.182127	0.053944	0.9579
CAPADQCYR*MFILEV	0.003739	0.059170	0.063188	0.9508
CAPADQCYR*MFISZAC	-3.000253	4.590319	-0.653605	0.5268
CAPADQCYR*MFIGRTH	0.005395	0.178199	0.030273	0.9764
CAPADQCYR*MFIBGD	0.905950	2.719301	0.333155	0.7453
CAPADQCYR*MFIBSZ	0.050093	0.129199	0.387723	0.7056
CAPADQCYR*MFIBBME	0.267751	0.547032	0.489462	0.6341
CAPADQCYR*MFISZ	-1.55E-12	5.52E-11	-0.028124	0.9781
CAPADQCYR	0.499344	1.842882	0.270958	0.7914
MFILEV^2	-0.001607	0.008294	-0.193710	0.8499
MFILEV*MFISZAC	0.049107	0.447405	0.109759	0.9146
MFILEV*MFIGRTH	0.010594	0.027510	0.385089	0.7075
MFILEV*MFIBGD	-0.160282	0.340831	-0.470269	0.6473
MFILEV*MFIBSZ	0.006431	0.036583	0.175803	0.8636
MFILEV*MFIBBME	0.064353	0.138905	0.463287	0.6522
MFILEV*MFISZ	-1.08E-12	1.82E-11	-0.059014	0.9540
MFILEV	-0.054619	0.314410	-0.173719	0.8652
MFISZAC^2	2.158795	28.77474	0.075024	0.9415

MFISZAC*MFIGRTH	0.991502	2.612602	0.379507	0.7115
MFISZAC*MFIBGD	-0.647727	10.24819	-0.063204	0.9507
MFISZAC*MFIBSZ	-0.148634	0.478486	-0.310635	0.7619
MFISZAC*MFIBBME	-0.506638	1.067151	-0.474757	0.6442
MFISZAC*MFISZ	-5.57E-11	2.30E-10	-0.242268	0.8130
MFISZAC	1.076186	14.91013	0.072178	0.9438
MFIGRTH^2	-0.009584	0.004220	-2.271403	0.0442
MFIGRTH*MFIBGD	-0.731710	1.930146	-0.379096	0.7118
MFIGRTH*MFIBSZ	0.031697	0.077912	0.406829	0.6919
MFIGRTH*MFIBBME	0.139225	0.380154	0.366232	0.7211
MFIGRTH*MFISZ	-3.61E-12	2.97E-11	-0.121547	0.9054
MFIGRTH	-0.569387	1.229115	-0.463249	0.6522
MFIBGD^2	0.061841	4.093435	0.015107	0.9882
MFIBGD*MFIBSZ	0.038191	0.464226	0.082267	0.9359
MFIBGD*MFIBBME	-0.316406	1.886248	-0.167743	0.8698
MFIBGD*MFISZ	5.20E-11	3.23E-10	0.161228	0.8748
MFIBSZ*MFISZ	-2.44E-12	2.53E-11	-0.096457	0.9249
MFIBBME*MFISZ	-3.90E-11	9.08E-11	-0.429923	0.6756
MFISZ^2	9.43E-22	4.00E-21	0.235883	0.8179
MFISZ	3.78E-11	2.19E-10	0.172196	0.8664

R-squared	0.851994	Mean dependent var	0.002212
Adjusted R-squared	0.340701	S.D. dependent var	0.004265
S.E. of regression	0.003463	Akaike info criterion	-8.447650
Sum squared resid	0.000132	Schwarz criterion	-6.956272
Log likelihood	250.1912	Hannan-Quinn criter.	-7.879725
F-statistic	1.666353	Durbin-Watson stat	2.899713
Prob(F-statistic)	0.183344		

Source: Own Eviews output, 2015

Appendix 4: Redundant Fixed effect Tests for ROA model

Redundant Fixed Effects Tests
Equation: EQ01
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	15.301516	(4,40)	0.0000
Cross-section Chi-square	46.413961	4	0.0000

Cross-section fixed effects test equation:
Dependent Variable: ROA
Method: Panel Least Squares
Date: 11/27/15 Time: 15:13
Sample: 2005 2014
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MFILEV	0.008902	0.004162	2.138944	0.0380
MFIGRTH	-0.003848	0.008641	-0.445344	0.6583
MFIBGD	-0.008635	0.036211	-0.238463	0.8126
MFIBIE	0.010594	0.027510	0.385089	0.7075
MFIBSZ	-0.148634	0.478486	-0.310635	0.7619
MFIBBME	-0.008348	0.013100	-0.637289	0.5272
CAPADQCYR	0.002907	0.019383	0.149982	0.8815
MFISZAC	0.049107	0.447405	0.109759	0.9146
MFIBEQ	0.160282	0.340831	-0.470269	0.6473
C	0.028781	0.014752	1.951004	0.0574

R-squared	0.178149	Mean dependent var	0.038708
Adjusted R-squared	0.084757	S.D. dependent var	0.020711
S.E. of regression	0.019814	Akaike info criterion	-4.892694
Sum squared resid	0.017274	Schwarz criterion	-4.663251
Log likelihood	128.3173	Hannan-Quinn criter.	-4.805321
F-statistic	1.907539	Durbin-Watson stat	0.943531
Prob(F-statistic)	0.112365		

Source: Own E views output, 2015

Appendix 5: Redundant Fixed effect Tests for ROE model

Redundant Fixed Effects Tests
Equation: EQ02
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	11.860644	(4,40)	0.0000
Cross-section Chi-square	39.105142	4	0.0000

Cross-section fixed effects test equation:
Dependent Variable: ROA
Method: Panel Least Squares
Date: 11/27/15 Time: 15:41
Sample: 2005 2014
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MFIBIE	0.016930	0.018114	-0.934616	0.3586
MFILEV	0.002238	0.004540	0.492896	0.6245
MFIBSZ	-0.002310	0.003292	-0.701646	0.4891
MFIGRTH	0.002327	0.008325	0.279578	0.7811
MFIBGD	-0.022951	0.025608	-0.896244	0.3750
MFIBEQ	0.093929	0.116176	0.808510	0.4261
MFISZAC	-3.000253	4.590319	-0.653605	0.5268
MFIBBME	0.139225	0.380154	0.366232	0.7211
CAPADQCYR	0.000682	0.016530	0.041243	0.9673
C	0.032243	0.013694	2.354493	0.0231

R-squared	0.279646	Mean dependent var	0.038708
Adjusted R-squared	0.197787	S.D. dependent var	0.020711
S.E. of regression	0.018550	Akaike info criterion	-5.024509
Sum squared resid	0.015141	Schwarz criterion	-4.795067
Log likelihood	131.6127	Hannan-Quinn criter.	-4.937136
F-statistic	3.416208	Durbin-Watson stat	0.922042
Prob(F-statistic)	0.010777		

Source: Own E views output, 2015

Appendix 6: The study Questionnaires

Note for the respondents: Dear respondents, the purpose of this questionnaire is to conduct a study on the effects of corporate governance variables on performance of Microfinance Institutions in Ethiopia for partial fulfillment of the requirement for MSC in accounting and finance. Your response supposed to have a paramount contribution for the success of the study and I would like to request your genuine responses for each questionnaire. I would like also to assure you that the information provided here will be used only for academic purposes and thus will be treated with maximum confidentiality.

Part 1. General Information

1. Name of the Microfinance Institution

   _____

2. Years you have served in the organization (Please Tick)
   a) Below 10 years _____
   b) 11-20 _____
   c) 21-30 _____
   d) 31-40 _____
   e) Above 40years _____
3. Your position in the organization (Please Tick)
   a) CEO _____
   b) Middle level manager _____
   c) Supervisor _____
   d) Any other (Specify) _____
4. How long has the firm been in existence? (Please Tick as appropriate)
   a) Below 2 years _____
   b) 3-5 years _____
   c) 5-7 years _____
   d) Above 7 years _____

Part 2. Composition of the board

1. Size of the board
   a) Less than 5 members _____
   b) 5 to 10 members _____
   c) 11 to 15 members _____
   d) More than 15 members_____
   Comment (s) (if any) _____

2. Academic qualification and experience of each board member (tick as appropriate)
   a) Entrepreneurship _____
   b) Accounting and Financial management _____
   c) Legal _____
   d) Micro-finance experts _____
   e) Human resource management _____
   f) Others _____

3. Gender composition – how many of the board member are women?
   a) Non _____
   b) One _____
   c) Two _____
   d) Three _____
   e) Four _____
   f) Five _____

4. Have the Board established supervisory committees other than the main Board?

	Name of the committee	**Yes**	**No**
1	Audit Committee		
2	Remuneration Committee		
3	Legal Committee		

5. If your institution has an audit committee, what is the number of the audit committee members?
   a) One _____
   b) Two _____
   c) Three_____
   d) Four_____
6. How many of the board of directors have college degree or above?
   a) One _____
   b) Two _____
   c) Three _____
   d) Four _____
   e) All _____
   f) Any other _____
7. How many of the board of directors have industry specific experience?
   a) One _____
   b) Two _____
   c) Three _____
   d) Four _____
   e) All _____
   f) Any other _____
8. How many of the board of directors have business management experience?
   a) One _____
   b) Two _____
   c) Three _____
   d) Four _____
   e) All _____
   f) Any other _____

Thank you very much for taking your time in responding all the questionnaires!