Financial Performance And Corporate Governance In Microfinance: Who Drives Who? An Evidence From Asia.

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FINANCIAL PERFORMANCE AND CORPORATE GOVERNANCE IN MICROFINANCE: WHO DRIVES WHO? AN EVIDENCE FROM ASIA

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Abstract

This paper models the two-way relationship between corporate governance and financial performance of microfinance institutions of Asia. Unlike previous studies, the phenomena of better corporate governance mechanisms present in more financially oriented microfinance institutions is worth investigating. Using a panel of 173 microfinance institutions in 18 Asian countries between 2007 and 2011, a comprehensive corporate governance index (CGI) based on seven corporate governance variables is being constructed as a proxy for the overall corporate governance mechanism of MFIs. Our results suggest that corporate governance has no significant impact on financial stability of MFIs of Asia. However, financial performance to some extent does drives corporate governance mechanisms in MFIs after controlling for MFI related characteristics. We find greater operating expenses and higher portfolio yield to be associated with improved governance practices in microfinance institutions. Study opens new avenues of research in corporate governance and financial performance literature for the academia. Given the revealing results of financial performance as a determinant of better corporate governance practices, policy makers and regulators in Asia should devise corporate governance policies and guidelines in a way not undermining the financial objectives of microfinance.

Introduction

Microfinance serves as a parallel financial sector by reaching the poor and under-privileged clients which commercial financial institutions fails to reach hence, can be used as an effective poverty alleviation tool in regions like Asia where majority of the world's poor live (Hulme and Mosley, 1996; Brau and Woller, 2004). In the recent years corporate governance has attracted lot of attention from different stakeholders of microfinance because many of the failures of MFIs in past have been linked with the presence of weak governance system in those institutions. CSFI (2014) consider quality of management and governance as one of the most pressing risks facing this industry. Labie and Mersland (2011) highlighted the importance of good governance in overall performance of MFIs. Mersland and Strom (2008); (2009); Coleman and Osei (2008); Manderlier et al. (2009); Bassem (2009); Tchuigoua (2010); Aboagye and Otieku (2010); Hartarska and mersland (2012) and Galema et al. (2012) found empirical evidence of how corporate governance leads to improved financial performance in microfinance. While some corporate governance studies support the existence of unidirectional relationship (Wruck, 1989; Randoy and Goel, 2001; Mitton, 2002; Fernandez and Gomez, 2002; and Chen et al. 2007), literature also highlights the importance of studying direction of causality between corporate governance and firm performance (Kole, 1996; Bohren and Odegaard, 2001; Farooque et al. 2007a; 2007b; Adams and Ferreira, 2009). This study responds to the need of more literature on causal relationship between corporate governance and performance of MFIs by first studying whether good governance in MFIs of Asia lead to improved financial performance and later answering the question whether more financially sustainable MFIs of Asia are also better in their governance structures. However, we take a separate approach from prior literature, which provide separate investigation of different characteristic of corporate governance and ignore their combined effect which is considered more effective approach (Bebchuk et al. 2008). We employee various characteristics of corporate governance from the perspective of leadership and ownership structure to construct a corporate governance index (CGI) for MFIs of Asia which is used as a proxy for overall corporate governance mechanism of MFIs.

The paper is organized as follows. Section II discusses the relevant literature followed by research methodology presented in section III. The descriptive and empirical analysis is presented in section IV followed by conclusion and recommendations at the end in section V.

Literature

Corporate governance practices have been high on the MFI agenda for the past decade because of the major shift from subsidies and donations to capital as source of fund and increased agency problems and lack of transparency in microfinance than other sectors of the economy (Labie, 2001). It is defined as the mechanism for setting goals and objectives of company and means for achieving those goals and objectives (OECD principles of corporate governance, 2004). The phenomenon got popularity and consideration of financial economists after 1976 publication of Jensen and Mackling's and has its basis in the agency theory which states that there is a conflict between the interest of managers and shareholders (Jensen and Meckling, 1976). Corporate governance provides solution to the agency problems and is defined as the mechanism which forces managers to act in the best interest of shareholders (Denis, 2001). However, in microfinance these practices are slightly different from other sectors because of MFIs dual mission, ownership type, and board of director's responsibility and risk valuation (Rock et al. 1998). Thus, corporate governance in microfinance can be divided into two dimensions; leadership structure of MFIs and ownership structure of MFIs. Leadership structure involves issues related to board of directors and top management team while ownership structure deals with different institutional setups in microfinance.

Board is the most important element of leadership and control mechanism because it is the board that has the final power and responsibility over the decisions of the firm (Jensen, 1993) and acts on the behalf of shareholders and provides the services of liaison between managers and owners hence reducing agency conflicts between them. Agency theory advocates separation of management decisions from corporate control by separating the roles of CEO and chairman of the board as it is the board that guides managers in strategic decisions and monitor and supervise them in taking action on those decisions (Jensen, 1993). Agency theory states that CEO duality brings more CEO entrenchment in the organization which hinders board's ability to effectively monitor management decisions while organization theory gives rationale in favor of CEO duality and states that it brings unity of command in organization and is beneficial. Women clients are generally considered the best target market for MFIs as microfinance focuses on the provision of financial services to small informal sector businesses involved in self-employment which are mostly run by women (Aghion and Morduch, 2005; Brau and Woller, 2004). MFIs could benefit by female leadership as females in an institution know better what kinds of products females like and how to target them. Many of the MFIs are non-profit organizations (NPOs) which are considered weak in governance structure because of high agency problems and low involvement of board in

monitoring management (Peck and Rosenberg, 2000) compared to their counter parts shareholder firms (SHF).

Firm Performance and corporate governance

Different views are present in literature on the nature of corporate governance and performance relationship. Some studies assume corporate governance to be an exogenous variable that affects firm performance while alternative view suggests that corporate governance itself is affected by prior firm performance hence suggesting its endogenous nature. Jensen and Meckling (1976); Morck et al. (1988); Wruck (1989); Welbourne (1999); Randoy and Goel (2001); Mitton (2002); Fernandez and Gomez (2002); Oxelheim et al. (2003) and Chen et al. (2007) studied different corporate governance variables exogenously, suggesting either the monotonic or non-monotonic nature of corporate governance and performance relationship. In microfinance literature Mersland and Strom (2008); (2009); Coleman and Osei (2008); Manderlier et al. (2009); Bassem (2009); Tchuigoua (2010); Aboagye and Otieku (2010); Hartarska and mersland (2012) and Galema et al. (2012) found the significant impact of different corporate governance indicators on performance of MFIs.

However, many studies in literature provide rationale for the two-way or reverse-causality in corporate governance and performance relationship by studying different corporate governance variables endogenously (Kole, 1996; Loderer and Martin, 1997; Cho, 1998; Bohren and Odegaard, 2001; Farooque et al. 2007a; 2007b). Dalton et al. (1999); Borsch and Koke (2002); Adams and Ferreira (2009) and Wintoki et al. (2009) highlighted the importance of studying the direction of causality in corporate governance and performance relationship. Manderlier et al. (2009) recommended that further research should be done on the reverse causality in corporate governance and performance relationship in microfinance sector of South Asia. Cho (1998) concluded that investment affects value of firm which further affects ownership structure while ownership structure has no effect on corporate value. Gruszczynski (2006) pointed out that companies that have higher profit and low debt ratio will probably have good corporate governance ratings. Chung and Pruitt (1996) found evidence of two way causality in corporate governance and performance relationship. Farooque et al. (2007a; 2007b) also confirmed the bi-directional relationship and concluded that firm value is a determinant of board ownership. Chen et al. (2008) found that firms which changed their leadership structure were experiencing declining performance and their performance did not improve after changing leadership structure. Valenti et al. (2011) found evidence in support of resource dependence theory by suggesting that board size and outsiders in board are positively determined by firm performance. The literature concludes

that corporate governance and firm performance could be jointly determined by each other, hence suggesting the presence of reverse or two-way causality in their relationship. This study focuses on both streams of research by studying the relationship between corporate governance and performance of microfinance institutions in both directions.

Based on the above literature we develop following hypotheses:

H1: corporate governance mechanism has significant impact on financial performance of MFIs.

H2: Financial performance has significant impact on corporate governance mechanism of MFIs.

The Construction of Corporate Governance Index (CGI)

Prior studies provide evidence of the link between corporate governance practices and performance in microfinance (Mersland and Strom, 2008; 2009; Hartarska and mersland, 2012; Tchuigoua, 2010; Aboagye and Otieku, 2010; Thrikawala et al. 2013; Galema et al. 2012; Bassem, 2009; Polanco, 2005; Hartarska and Nadolnyal, 2007; Coleman and Osei, 2008; Manderlier et al. 2009; Boehe and Cruz, 2013; Mori and Mersland, 2014; Strom et al. 2014). However, all these studies provide separate investigation of different characteristic of corporate governance and ignore their combined effect which is considered more effective approach (Gompers et al. 2003; Bebchuk et al. 2008). Chen et al. (2007) highlighted the importance of combined measure of all corporate governance variables by pointing out that certain characteristic of corporate governance may complement other characteristic or may actually be a proxy for some other characteristic. Based on the above literature, we construct an index of seven corporate governance variables, related to leadership and ownership dimensions, from the perspective of microfinance sector of Asia.

Board Size: Small board size is considered efficient control mechanism because when number of director increases beyond seven or eight, their performance decreases (Jensen, 1993). According to Lipton and Lorsch (1992), when board size increases beyond ten members, it becomes difficult for all members to express their opinions. In the perspective of microfinance, board size of seven to nine members is considered ideal and five to eleven members is considered effective (council of microfinance equity funds, 2012). Hartarska and Mersland (2012) found evidence of improved performance in MFIs with board size of up to nine members. Therefore, we measure this indicator as value equals 1 if the board size is between seven to nine members and 0 otherwise.

Presence of Female BODs: Female presence in boards is thought to be linked with increased MFI performance (Bassem, 2009) as women directors processes managerial skills like public

relations, human resource and communication skills than operating and marketing skills (Thrikawala et al. 2013). Presence of gender diversity on boards also indicates that boards have broader perspective (council of microfinance equity funds, 2012). This argument can also be supported by resource dependence theory. Adams and Ferreira (2009) found evidence of increased monitoring activities in firms having more gender diversity in their boards. This variable is measured as value 1 if MFI has female presence in board, 0 otherwise.

Board Qualification: According to resource dependence theory, board acts as a resource provider for a firm in the form of human capital and relational capital (Pfeffer and Salancik, 1978; Hillman and Dalziel, 2003). Qualified and experienced directors bring skills like banking and finance, legal knowledge, community developments, social skills along with the information about the target market into the MFIs. Manderlier et al. (2009) considered board to be qualified enough if they had enough experience and knowledge in the field of microfinance. Presence of qualified directors is linked with increased MFI performance (CGAP Appraisal guide for MFIs, 2007; 2008; council of microfinance equity funds, 2012). Thus, board qualification is measured as value 1 if board has experience and knowledge in microfinance, 0 otherwise.

Local Directors: Presence of international directors is linked with the improved performance of firms in conventional financial institutions (Oxelheim et al. 2003). This may be because international directors bring superior business practices in those firms and are better equipped with the required skills. However in the context of MFIs, presence of international directors on board is linked with the increased costs hence reducing the financial performance (Mersland et al. 2009). In MFIs, local directors are better equipped with the information of the local market trends which MFI has to serve. Thus, we measure this indicator as value equals 1 if board has local directors, 0 otherwise.

CEO/Chairman Duality: Two-tier board structure is considered more effective than one-tier structure in MFIs because when both CEO and board chair positions are separated, it reduces the conflict between management and board hence increasing the performance (Coleman and Osei, 2008). When the roles of CEO and chairman of the board are merged, then the CEOs have more power and freedom in decision making which could lead to more risky decisions (Galema et al. 2012). Thus, CEO duality could mean lack of independent board in an institution which has been linked with worse financial and social performance (Hartarska, 2005; Coleman and Osei, 2008). We measure CEO/Chairman duality indicator as value 1 if CEO and chairman roles are separated, 0 otherwise.

Female CEO: Boehe and Cruz (2013) found evidence of improved performance in MFIs having more female members. Many MFIs in Asia that work with the mission of women empowerment mandate could benefit by bringing female membership at all levels of the management including its executive level (Campion et al. 2008) as female CEO is better able to gather information from females then a male CEO (Mersland and strom, 2009). Even in sectors other than microfinance, presence of females in the top management team has been linked with the improved performance in the literature (Welbourne, 1999). Therefore, we define this indicator as value 1 if MFIs CEO is female, otherwise 0.

Ownership Type: Many policy advocates in microfinance calls for the transformation of NPOs into more profit oriented shareholder firms because they could be better governed by the banking authorities (Christen & Rosenberg, 2000; Jansson et al. 2004; Ledgerwood and White, 2006; Campion and White, 2001; Lauer 2008; Mersland, 2009). There are some benefits of regulation in SHFs on outreach and sustainability as regulated MFIs or SHFs offer variety of services in addition to lending and also collect savings which is linked with the better scope of outreach of the MFIs (Hartarska and Nadolnyak, 2007; Lauer 2008). Servin et al. (2012) proposed SHFs to be more technically efficient than the NPOs at both inter-firm and intra-firm level. We measure ownership type indicator as value 1 if MFI is a SHF, 0 otherwise.

CGI is used as a proxy for overall corporate governance mechanism of MFIs. Each variable included in CGI is given value equal to 1 for the characteristic that is considered to be effective, for the overall performance of MFIs, 0 otherwise. Index is calculated by the sum of all indicators values. Maximum index value is 7 indicating effective governance mechanisms while lowest index value is 0 indicating weakest governance mechanisms in MFIs. Table 1 shows the brief description of the indicators used for the construction of CGI for MFIs.

Table 1

Description of corporate governance indicators

Indicator	Description
Board Size	Value equals 1 if the board size is between seven to nine members and 0 otherwise.
Presence of Female BODs	Value equals 1 if female directors are present in board, 0 otherwise.
Board Qualification	Value equals 1 if board has enough experience and knowledge in microfinance, 0 otherwise.
Local Directors	Value equals 1 if board has local directors, 0 otherwise.
CEO/Chairman duality	Value equals 1 if CEO and chairman roles are separated, 0 otherwise.

Female CEO	Value equals 1 if CEO of MFI is female, otherwise 0.
Ownership type	Value equals 1 if MFI is a SHF, 0 otherwise.

Methodology

Sample and data

Microfinance sector in Asia was originated with the mission to offer financial services to the poorest which had been excluded from the conventional financial services. The region is the main recipient of microfinance, and given its vast population, also has the largest number of poor households in the world. In 2010, about 63 percent of the world's extreme poor lived in East Asia and the Pacific (246 million) as well as in South Asia (507 million)[1]. This population forms an immense client base for microfinance, which has not gone unnoticed. Therefore we focuses on the microfinance sector of Asia as it can play an important role in financial and economic development of a region.

MFIs that have a profile on Microfinance Information Exchange (MIX market), that are given at least 4 diamond rating by MIX market and that are rated by the microfinance rating agencies are included in the final sample of 173 MFIs. Our data for this study primarily comes from the MIX market[2] website where around 1044 MFIs from 18 Asian countries (Armenia, Azerbaijan, Bangladesh, Cambodia, China, Georgia, India, Indonesia, Jordan, Kazakhstan, Kyrgyzstan, Nepal, Pakistan, Philippines, Russia, Sri-Lanka, Tajikistan and Vietnam) have shared their data. Out of these, 418 MFIs have been given a rating of at least 4 diamonds[3] by MIX market based on the transparency and reliability of the data shared. Our final sample reduces to a total of 173 MFIs from 18 Asian countries for the period of five years from 2007 to 2011, as these were the only MFIs rated by the third party rating agencies and the only source of data for the variables used in the construction of corporate governance index (CGI) is those third party rating reports and the annual reports of respective MFIs.

[1] World Bank, "The State of the Poor: Where Are the Poor….. What is the current profile of the World's poor?" (accessed April 2013).

[2] MIX (Microfinance Information Exchange) market is a database for microfinance data where all microfinance institutions and supporting organizations share their data. MIX market plays an important role in improving transparency of this sector. www.mixmarket.org

[3] MIX market gives diamond scores to its MFI profiles on the basis of availability of products and client data, financial data, audited financial statements and rating reports. 4 and 5 rated MFIs are considered most transparent in terms of information sharing hence, are included in our final sample.

Those rating reports could be accessed from the Rating Fund website[4] while annual reports were extracted from MFIs respective website. Data for Human Development Index (HDI) has been collected from United Nations development Program (UNDP) website[5] while data for GDP per capita is taken from the World Bank website[6].

Variables

Financial Performance

This study uses accounting based performance measures to assess financial performance of MFIs because many of the MFIs are the private financial institutions that have not gone commercialized yet and are not registered so their market-based performance measurement is not possible (Strom et al. 2014). Return on Assets *(ROA)*, Return on Equity *(ROE)*, Portfolio yield *(PY)* and operating expense ratio *(OER)* are used for assessing the profitability of MFIs and are a part of the ratios given by different policy guidelines for financial performance assessment of MFIs (SEEP Network 2010; CGAP 2007; 2008; Rosenberg 2009; Barres et al. 2005). All these ratios belong to the profitability analysis and have been used number of times in microfinance literature for measuring the overall financial performance of MFIs. Along with these ratios Operational self-sufficiency *(OSS)* has also been used in the literature to measure sustainability. It is important to assess the performance of an MFI in terms of its self-sufficiency because day by day many MFIs are becoming commercialized and self-dependent instead of depending on subsidies and donations (Imai et al. 2012; Aboagye and Otieku 2010; Strom et al. 2014; Cull et al. 2007; Mersland and Strom 2009; Manderlier et al. 2009; Bassem 2009; Hartarska 2005).

Controls

Firm age, size, risk and regulatory status are the firm specific factors other than performance that also affect corporate governance practices of a firm (Black et al. 2006). Larger the age of a firm, better will be its corporate governance practices (Black et al. 2006). This may be because older firms have more experience and have had more time to improve their internal governance. Similarly larger and riskier firms are better governed. This study measures age

[4] www.ratingfund2.org Contains risk assessment reports of 383 MFIs from 73 countries. These MFIs have been rated by five microfinance rating agencies; Microfinanza, Planet Rating, Crisil, MicroRate and M-Cril which are considered as official rating agencies by CGAP (Consultative group to assist the poor). Data for few of the indicators of corporate governance has also been extracted from institution's respective websites.

[5] www.hdr.undp.org/en/statistics/hdi Data collected on Jan 15th 2014

[6] www.worldbank.org Data collected on Jan 15th 2014

of MFIs as log of years since establishment of MFIs (Black et al. 2006; Crombrugghe et al. 2008), size as log of total assets of an MFI (Black et al. 2006; Mori and Mersland, 2014) and risk as portfolio at risk 30 days past due (PAR 30) (Hartarska and Mersland, 2012; Mersland et al. 2008).

Black et al. (2006) considered regulatory status as the most important indicator affecting governance in firms. Regulatory status is measured as a dummy having value 1 if MFI is regulated by a banking authority, 0 otherwise. MFIs offer many types of lending services to customers like group lending, individual lending etc. Mersland and Strom (2009) considered loan methodology as an important dimension in MFIs governance performance studies. This study uses three dummies for lending methodology variable; first MFIs offering individual lending services, second MFIs offering group lending services and third MFIs offering both types of lending services. According to legal structure MFIs can be classified into five types; banks, rural banks, NBFIs, NGOs and credit unions or cooperatives (CGAP 2007 and 2008). Governance practices differ in MFIs according to their legal status (council of microfinance equity funds 2012). For example legal status of an MFI determines the ownership structure of MFIs and the decision making power in them (Lapenu and Pierret 2006). This study measures legal status as five dummy variables of banks, rural banks, NBFIs, NGOs and credit unions.

Human development index (HDI) and GDP per capita are used as country controls in this study. Human development index is a UNDP indicator covering standard of living, knowledge and life expectancy. GDP per capita is a world development indicator calculated as total output of economy divided by number of people in an economy.

Following models are formulated to study the relationship between financial performance and corporate governance mechanism of MFIs:

H1: Corporate governance mechanism has significant impact on financial performance of MFIs

H1a: Corporate governance mechanism has significant impact on return on assets *(ROA)* of MFIs.

$$ROA = \alpha + \beta_1 \text{CGI} + \beta_2 Log\ assets + \beta_3 Log\ age + \beta_4 PAR\ 30 + \beta_5 GDP/capita + \beta_6 HDI + \beta_7 RS1 + \beta_8 LM1 + \beta_9 LM2 + \beta_{10} LS1 + \beta_{11} LS2 + \beta_{12} LS3 + \beta_{13} LS4 + \varepsilon \quad (1.1)$$

H1b: Corporate governance mechanism has significant impact on return on equity *(ROE)* of MFIs.

$$ROE = \alpha + \beta_1 \text{CGI} + \beta_2 Log\ assets + \beta_3 Log\ age + \beta_4 PAR\ 30 + \beta_5 GDP/capita + \beta_6 HDI + \beta_7 RS1 + \beta_8 LM1 + \beta_9 LM2 + \beta_{10} LS1 + \beta_{11} LS2 + \beta_{12} LS3 + \beta_{13} LS4 + \varepsilon \quad (1.2)$$

H1c: Corporate governance mechanism has significant impact on operational self-sufficiency *(OSS)* of MFIs.

$$OSS = \alpha + \beta_1 \text{CGI} + \beta_2 Log\ assets + \beta_3 Log\ age + \beta_4 PAR\ 30 + \beta_5 GDP/capita + \beta_6 HDI + \beta_7 RS1 + \beta_8 LM1 + \beta_9 LM2 + \beta_{10} LS1 + \beta_{11} LS2 + \beta_{12} LS3 + \beta_{13} LS4 + \varepsilon \quad (1.3)$$

H1d: Corporate governance mechanism has significant impact on portfolio yield *(PY)* of MFIs.

$$PY = \alpha + \beta_1 \text{CGI} + \beta_2 Log\ assets + \beta_3 Log\ age + \beta_4 PAR\ 30 + \beta_5 GDP/capita + \beta_6 HDI + \beta_7 RS1 + \beta_8 LM1 + \beta_9 LM2 + \beta_{10} LS1 + \beta_{11} LS2 + \beta_{12} LS3 + \beta_{13} LS4 + \varepsilon \quad (1.4)$$

H1e: Corporate governance mechanism has significant impact on operating expense ratio *(OER)* of MFIs.

$$OER = \alpha + \beta_1 \text{CGI} + \beta_2 Log\ assets + \beta_3 Log\ age + \beta_4 PAR\ 30 + \beta_5 GDP/capita + \beta_6 HDI + \beta_7 RS1 + \beta_8 LM1 + \beta_9 LM2 + \beta_{10} LS1 + \beta_{11} LS2 + \beta_{12} LS3 + \beta_{13} LS4 + \varepsilon \quad (1.5)$$

H2: Financial performance has significant impact on corporate governance mechanism of MFIs.

$$CGIi^* = Xi'\beta + Yi'\gamma + \varepsilon i$$

Where,

$$Xi'\beta = \beta_1 ROA + \beta_2 ROE + \beta_3 OSS + \beta_4 PY + \beta_5 OER$$

$$Yi'\gamma = \gamma_1 Log\ assets + \gamma_2 Log\ age + \gamma_3 PAR\ 30 + \gamma_4 GDP/capita + \gamma_5 HDI + \gamma_6 RS1 + \gamma_7 LM1 + \gamma_8 LM2 + \gamma_9 LS1 + \gamma_{10} LS2 + \gamma_{11} LS3 + \gamma_{12} LS4 \quad (2)$$

H2a: Return on assets *(ROA)* has significant impact on corporate governance mechanism of MFIs.

$$CGIi^* = Xi'\beta + Yi'\gamma + \varepsilon i$$

Where,

$$Xi'\beta = \beta_1 ROA$$

$$Yi'\gamma = \gamma_1 Log\ assets + \gamma_2 Log\ age + \gamma_3 PAR\ 30 + \gamma_4 GDP/capita + \gamma_5 HDI + \gamma_6 RS1 + \gamma_7 LM1 + \gamma_8 LM2 + \gamma_9 LS1 + \gamma_{10} LS2 + \gamma_{11} LS3 + \gamma_{12} LS4 \quad (2.1)$$

H2b: Return on equity *(ROE)* has significant impact on corporate governance mechanism of MFIs.

$$CGIi^* = Xi'\beta + Yi'\gamma + \varepsilon i$$

Where,

$$Xi'\beta = \beta_1 ROE$$

$$Yi'\gamma = \gamma_1 Log\ assets + \gamma_2 Log\ age + \gamma_3 PAR\ 30 + \gamma_4 GDP/capita + \gamma_5 HDI + \gamma_6 RS1 + \gamma_7 LM1 + \gamma_8 LM2 + \gamma_9 LS1 + \gamma_{10} LS2 + \gamma_{11} LS3 + \gamma_{12} LS4 \quad (2.2)$$

H2c: Operational self-sufficiency *(OSS)* has significant impact on corporate governance mechanism of MFIs.

$CGIi^* = Xi'\beta + Yi'\gamma + \varepsilon i$

Where,

$Xi'\beta = \beta_1 OSS$

$Yi'\gamma = \gamma_1 Log\ assets + \gamma_2 Log\ age + \gamma_3 PAR\ 30 + \gamma_4 GDP/capita + \gamma_5 HDI + \gamma_6 RS1 + \gamma_7 LM1 + \gamma_8 LM2 + \gamma_9 LS1 + \gamma_{10} LS2 + \gamma_{11} LS3 + \gamma_{12} LS4$ (2.3)

H2d: Portfolio yield *(PY)* has significant impact on corporate governance mechanism of MFIs.

$CGIi^* = Xi'\beta + Yi'\gamma + \varepsilon i$

Where,

$Xi'\beta = \beta_1 PY$

$Yi'\gamma = \gamma_1 Log\ assets + \gamma_2 Log\ age + \gamma_3 PAR\ 30 + \gamma_4 GDP/capita + \gamma_5 HDI + \gamma_6 RS1 + \gamma_7 LM1 + \gamma_8 LM2 + \gamma_9 LS1 + \gamma_{10} LS2 + \gamma_{11} LS3 + \gamma_{12} LS4$ (2.4)

H2e: Operating expense ratio *(OER)* has significant impact on corporate governance mechanism of MFIs.

$CGIi^* = Xi'\beta + Yi'\gamma + \varepsilon i$

Where,

$Xi'\beta = \beta_1 OER$

$Yi'\gamma = \gamma_1 Log\ assets + \gamma_2 Log\ age + \gamma_3 PAR\ 30 + \gamma_4 GDP/capita + \gamma_5 HDI + \gamma_6 RS1 + \gamma_7 LM1 + \gamma_8 LM2 + \gamma_9 LS1 + \gamma_{10} LS2 + \gamma_{11} LS3 + \gamma_{12} LS4$ (2.5)

Where

CGI=Corporate governance index, PAR 30=portfolio at risk 30 days, HDI= human development index, RS1= Regulated MFIs*, LM1= Individual lending, LM2=Group lending, LS1=Banks, LS2 =Rural banks, LS3=NBFIs and LS4=NGO.*

Analysis

Descriptive Statistics

Table 2 presents the descriptive analysis of all control and financial performance variables. The average ROA in MFIs is only 2.8% with minimum value of -4.9% and maximum value of 10.9%. Negative minimum value indicates that some MFI suffered losses in selected period of analysis. Standard deviation of 0.0353 indicates that the ROA of MFIs in our sample deviate from the mean value by 3.53%. The average value of ROE in our sample is 0.14 which shows that on average MFIs earn the return of 14% on equity. Minimum value is -0.27 indicating some MFI in our sample suffered losses during the period of 2007 to 2011.

However maximum ROE value is 0.5499 which means that in the selected sample the maximum return some MFI earned on its equity is 54.99%. The mean value of operational self-sufficiency is 1.17 with the minimum value of 0.67 and maximum value of 1.71. Operational self-sufficiency deviates from the mean by 0.223. The average yield on the gross loan portfolio of our sample 17.84% which shows that on average MFIs in our sample are earning 17.84% yield on their portfolios. The mean value of operating expense ratio indicates that in the MFIs selected, 16.19% administrative and overhead cost is incurred on gross loan portfolio. Minimum value indicates that some MFI in our sample incurred no cost on gross loan portfolio during some point of time in selected period of analysis. Maximum overhead and administrative cost some MFI in our sample bearded was 35.99% of the gross loan portfolio.

Table 2

Descriptive statistics summary of the variables

	Measurement	**N**	**Min.**	**Max.**	**Mean**	**Median**	**Std. Dev**
Return on assets (ROA)	Net income after taxes and before donations / Average assets	865	-0.0499	0.1099	0.02810	0.0249	0.0353
Return on equity(ROE)	Net income after taxes and before donations / Average equity	865	-0.2780	0.5499	0.1404	0.1317	0.1709
Operational self-sufficiency (OSS)	Financial revenues / Financial expenses + loan loss expenses + operating expenses	865	0.6782	1.7125	1.1793	1.1476	0.2233
Portfolio yield (PY)	[(Interest, fees and commission on loan portfolio / Average gross loan portfolio) – Inflation rate] / [1 + Inflation rate]	865	-0.0742	0.4464	0.1785	0.1653	0.0999
Operating expense ratio (OER)	Operating expenses / Average gross loan portfolio	865	0.0085	0.3599	0.1620	0.1466	0.0775
Age (years)	Number of years since establishment	865	1	39	11.9711	11	7.1349
Total assets (1000s $)	Total assets in 1000s	865	0	5122359	90911	15043	3.4580
Log assets	Log of total assets of MFI	865	0	9.7095	7.1948	7.1773	0.7991
Portfolio at risk (PAR)	Value of loans outstanding whose payments are past 30 days due	865	0	7.1143	0.0683	0.0157	0.2967
Human	Index of human living	865	0.4400	0.7840	0.6002	0.5510	0.0945

Development Index (HDI)	standard, life expectancy and education						
GDP/Capita	Total output of an economy / number of people in an economy	865	1687	22502	5943	4399	4720

Descriptive statistics also shows that the average age of the microfinance sector of Asia is only 12 years which proves that this sector is still very young and is in its early stages. However one MFI in our sample is as old as 39 years. Minimum value of 0 indicates that MFIs established in year 2007 have also been included in our sample. The average size of the microfinance sector of Asia is 90911 dollars as measured by the mean of total assets.

CGI is an ordinal variable whose values could range from 0 to 7. The description of CGI is shown in table 3.

Table 3

Description of corporate governance index

CGI	Frequency	Percent	Cum.
1	5	0.58	0.58
2	40	4.62	5.2
3	140	16.18	21.39
4	270	31.21	52.6
5	265	30.64	83.24
6	125	14.45	97.69
7	20	2.31	100
Total	865	100	

75% MFIs of our sample are regulated by some regulatory or banking authority while remaining 25% are non-regulated. 12% of our sample is composed of regular banks, 6% rural banks, 47% non-banking financial institutions, 31% NGOs and 4% is composed of credit unions. 21% MFIs of Asia included in our sample offer individual lending, 23% group lending and remaining 56% offer both kinds of lending services.

Figure 1 depicts the overall corporate governance mechanism of MFIs of Asia according to their regulatory status. Regulated MFIs have a better system of overall corporate governance as compared to the non-regulated MFIs. The value of median is same for both regulated and non-regulated MFIs i.e. 4 however the greater variation in the non-regulated MFIs depicts the overall better corporate governance in regulated MFIs. Variance in corporate governance index for regulated MFIs is 1.29 compared to the variance of 1.47 for non-regulated MFIs. Minimum value of corporate governance index for regulated MFIs is 3 compared to the

minimum value of 2 for non-regulated MFIs, showing that all regulated MFIs have overall corporate governance index score of at least 3.

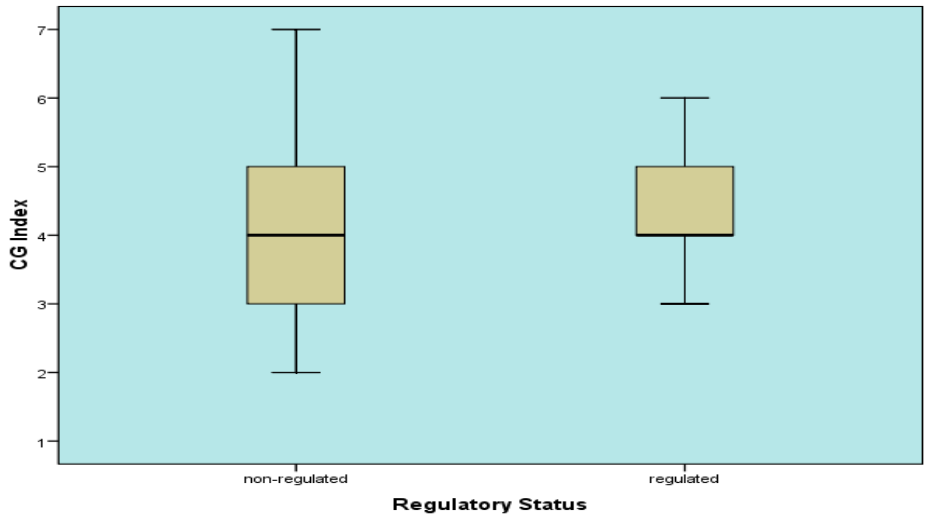

Fig 1. *Corporate Governance According To the Regulatory Status*

Source: Based on authors self-calculations

Figure 2 depicts the overall corporate governance mechanism in MFIs of Asia according to their legal status. Corporate governance index is used as a proxy for overall corporate governance system and the highest corporate governance index score of 5 for both regular banks and rural banks indicate that both have almost same level of corporate governance system. However the value of variance in CG Index for regular banks is 0.920 and for rural banks is 1.469. The value of variance in CG Index for regular banks is low compared to that of rural banks which shows that regular banks are the highest performing MFIs in terms of corporate governance system. The lowest performing MFIs are the credit unions having the median of 4 with the variance of 1.176.

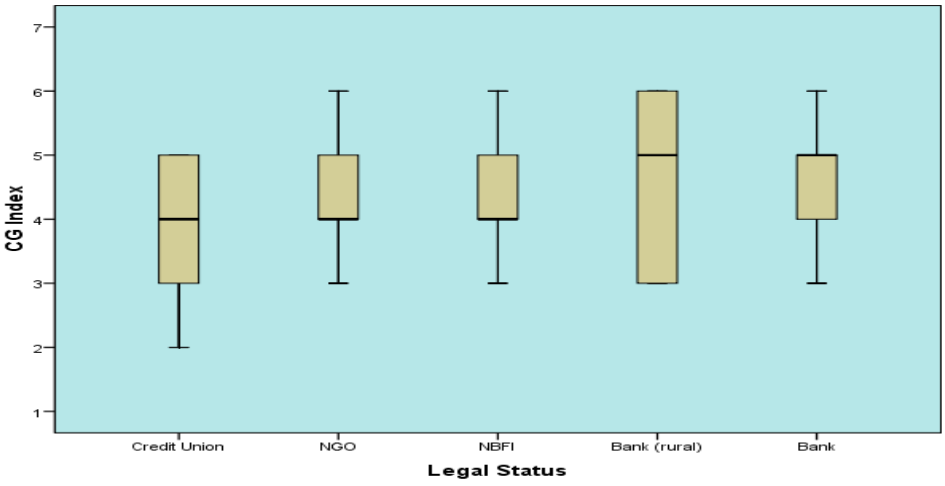

Fig 2. *Corporate Governance According To the Legal Status*

Source: Based on authors self-calculations

Figure 3 depicts the overall corporate governance mechanism of MFIs according to the lending type offered by them. MFIs that offer both individual and group lending services have the best corporate governance system as can be seen by the highest CG Index score of 5. MFIs that offer one type of lending service that is either individual or group have CG Index score of 4. However the variation in group lending methodology is more as the variance of CG Index for individual lending is 0.999 and for group lending is 1.407. MFIs that offer both kinds of services have the best system of corporate governance.

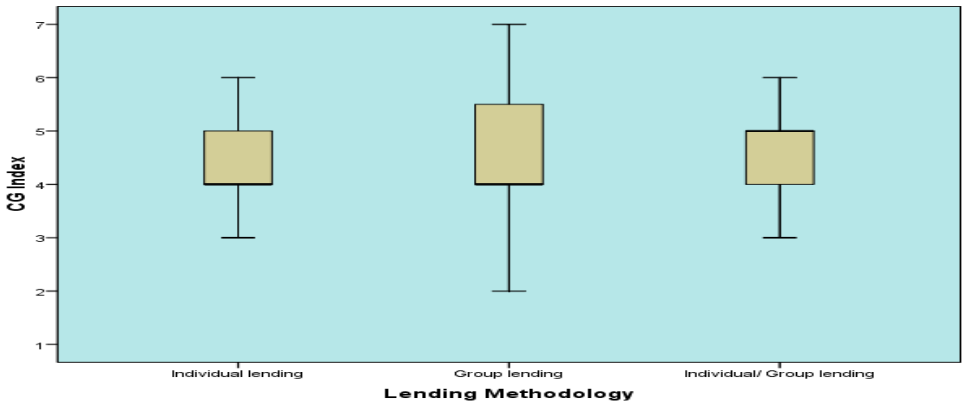

Fig 3. *Corporate Governance According To Lending Methodology*

Source: Based on authors self-calculations

Empirical Analysis

Correlation

Table 4 provides correlation matrix of all variables. All financial indicators; ROA, ROE, OSS and PY are positively and highly significantly correlated with each other at 0.01 level of significance which confirms the fact that all these indicators are different dimensions of one variable i.e. financial performance. OER however has a negative and highly significant correlation with all other financial indicators which again proves the above fact as OER measures the expenses of MFIs and lower ratio indicates better financial performance. However, none of the financial variables are significantly correlated with the response variable i.e. CGI. This shows that corporate governance mechanism of MFIs is not related with their financial stability as MFIs are more of the socially focused firms with the main focus on objectives like poverty reduction and women empowerment etc. especially in Asia. These findings are in lined with the findings of Strom et al. (2014) who found negative and highly insignificant correlation of ROA, ROE and OSS with corporate governance variables. Correlation results confirm the tradeoff between profitability and risk though the latter has positive but insignificant relationship with CGI. Nevertheless, positive sign shows that more

risky firms need better control and monitoring systems hence better governance system (Black et al. 2006). Further results show that experienced firms have better governance mechanisms however they have more complex systems which demands better governance systems.

Table 4

Correlation matrix of CGI with financial performance and control variables

Correlation matrix (Financial Performance)											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1	**Corporate Governance Index (CGI)**	1										
2	**Return on Assets (ROA)**	-0.059	1									
3	**Return on Equity (ROE)**	-0.029	0.666**	1								
4	**Operational self-sufficiency (OSS)**	-0.047	0.793**	0.660**	1							
5	**Portfolio yield (PY)**	0.033	0.284**	0.131**	0.097**	1						
6	**Operating expense ratio (OER)**	0.050	-0.134**	-0.227**	-0.292**	0.437**	1					
7	**Human Development Index (HDI)**	-0.047	0.120**	-0.099**	0.058	0.264**	0.200**	1				
8	**GDP/Capita**	-0.019	0.076*	-0.049	0.051	0.172**	0.127**	0.778**	1			
9	**PAR 30**	0.000	-0.071*	-0.075*	-0.082*	-0.043	-0.042	-0.044	-0.019	1		
10	**Log age**	0.041	0.047	0.109**	0.013	-0.014	-0.085*	-0.109**	-0.071*	0.145**	1	
11	**Log assets**	0.088**	0.031	0.095**	0.087*	-0.169**	-0.288**	-0.100**	-0.099**	0.038	0.413**	1

** Statistical significance at 1% level, * statistical significance at 5% level

Regression

Regression analysis is carried out in two parts; the first part focuses on the impact of corporate governance mechanism of MFIs on their financial performance while the second part analyzes the reverse-causality in governance and performance relationship by studying

the relationship in reverse direction i.e. the impact of financial performance on corporate governance mechanism of MFIs.

Impact of Corporate Governance Mechanism on financial Performance

Generalized Least Square (GLS) models for panel data are used for analyzing the impact of corporate governance mechanism on MFIs financial performance. Table 5 shows the GLS model results for the impact of CGI on financial performance.

Table 5

Results for impact of CGI on financial performance of MFIs

Models	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**
	ROA	**ROE**	**OSS**	**PY**	**OER**
Constant	-0.0344 (-1.18)	-0.0009 (-0.01)	0.8765*** (4.72)	0.0720 (0.92)	0.2280*** (3.74)
CGI	-0.0014 (-0.73)	-0.0048 (-0.55)	-0.0072 (-0.62)	0.0046 (0.94)	0.0037 (0.93)
HDI	0.0549 (1.46)	-0.0697 (-0.39)	0.2060 (0.87)	0.2515** (2.53)	0.1367* (1.71)
GDP/capita	-3.0000 (-0.44)	-0.0000 (-0.10)	-0.0000 (-0.48)	-0.0000 (-0.07)	0.0000 (0.02)
PAR	-0.0053* (-1.70)	-0.0338** (-2.15)	-0.0424** (-2.09)	-0.0052 (-0.56)	-0.0011 (-0.18)
Log age	0.0120* (1.88)	0.0491 (1.58)	0.0010 (0.02)	0.0278 (1.57)	0.0038 (0.30)
Log assets	0.0019 (0.80)	0.0205* (1.79)	0.0266* (1.78)	-0.0138** (-2.10)	-0.0186*** (-4.10)
Regulated MFIs	-0.0029 (-0.49)	-0.0040 (-0.14)	0.0187 (0.50)	-0.0178 (-1.16)	-0.0161 (-1.27)
Individual lending	0.0080 (1.38)	0.0267 (0.99)	0.0456 (1.26)	-0.0068 (-0.45)	-0.0395*** (-3.17)
Group lending	-0.0002 (-0.03)	0.0162 (0.59)	-0.0174 (-0.47)	-0.0101 (-0.66)	-0.0201 (-1.61)
Banks	-0.0036 (-0.28)	-0.0632 (-1.04)	-0.0657 (-0.81)	0.0042 (0.12)	0.0072 (0.26)
Banks (rural)	0.0159 (1.10)	0.0921 (1.36)	0.0808 (0.89)	0.0091 (0.24)	-0.0427 (-1.37)
NBFIs	0.0178 (1.54)	0.0068 (0.13)	0.0240 (0.33)	0.0351 (1.16)	-0.0095 (-0.38)
NGOs	0.0132 (1.13)	0.0171 (0.31)	0.0178 (0.24)	0.0253 (0.83)	-0.0107 (-0.42)
Wald-Chi2	24.27***	25.11***	16.10	37.53***	48.31***
R Square	0.0648	0.0661	0.0477	0.1178	0.1732

*** Statistical significance at 1% level, ** Statistical significance at 5% level, * Statistical significance at 10% level. Omitted variables are non-regulated MFIs, MFIs with individual and group lending, and credit unions

By employing random effects model, it is seen that the overall corporate governance system has no significant impact on the MFIs financial performance. These results imply that

profitability and sustainability of MFIs do not improve with better governance practices. We link these insignificant results of financial performance with corporate governance mechanism of MFIs to the fact that corporate governance involves the monitoring and control of an institution by the executive and top management levels. It involves the strategic level decisions that are taken in an institution. As profit generation and maximization is never a mission of MFIs, this could be the reason behind insignificant impact of CGI on financial performance of MFIs.

The insignificant results of financial performance variables with the corporate governance mechanism of MFIs could be attributed to the endogenous nature of governance and performance relationship. Financial performance of MFIs of Asia is irrelevant of their corporate governance system as can be seen by the GLS model results. As reverse-causality may exist in this relationship so, the financial performance of MFIs may determine the governance practices in those MFIs. In this regard, next section studies the impact of MFIs performance on their corporate governance mechanism.

Impact of Performance on Corporate Governance Mechanism

Corporate governance index (CGI) constructed in this study is an ordinal variable with values from 0 to 7 in ascending order. The models for ordered response variable are the most suitable option for this kind of response variable. The values of CGI ranges from 0 to 7 in ascending order, with score 0 indicating weakest governance mechanisms and score 7 indicating strongest governance mechanisms in MFIs. In ordered response models the number does not mean anything because the difference between first two scores is different than the difference between other two scores. But the fact that scores 7 is better than 6 and scores 6 is better than 5 and so on, provides suitable information about the nature of the variable (Wooldridge 2010, p. 504-508).

The ordinal variable CGI is related to the continuous latent variable CGI* which measures corporate governance mechanism of MFIs. The linear model for CGI* is equal to

$CGIi^* = Xi'\beta + \varepsilon i$

Where, $\beta = k \times 1$ and Xi' does not contain a constant.

The value of CGI* is unknown unless it crosses certain threshold points ($\alpha1$, $\alpha2$, $\alpha3$, $\alpha4$, $\alpha5$, $\alpha6$).

Where,

CGI = 1 if $\alpha-\infty < CGI^* \leq \alpha1$

CGI = 2 if $\alpha1 < CGI^* \leq \alpha2$

CGI = 3 if $\alpha2 < CGI^* \leq \alpha3$

CGI = 4 if $\alpha 3 < CGI^* \leq \alpha 4$

CGI = 5 if $\alpha 5 < CGI^* \leq \alpha 6$

CGI = 6 if $\alpha 6 < CGI^* \leq \alpha \infty$

Gruszczynski (2006) used ordered logit model for estimating relationship between corporate governance and firm performance for ordered response variable; firm CGI ratings. This study also estimates ordered logit model for the ordinal variable CGI for explaining the relationship between corporate governance and performance in MFIs of Asia.

In the first part all financial performance variables are regressed together on CGI in the presence of control variables. As it can be seen from correlation table 4, all variables of financial performance are highly correlated with each other so the analysis of aggregate impact of all financial performance variables could produce biased results. This is why individual effect of each indicator is also seen on CGI by controlling the effect of control variables.

Table 6 provides ordinal logit regression results for social performance and CGI. Model 2 measures the aggregate impact of all financial performance indicators on CGI in the presence of control variables. Models 2.2 to 2.5 measure the individual effect of each financial performance indicator on CGI by controlling the effect of control variables. The values of chi-square shows that models depicted in table 6 are significant at 1% level of significance which indicates that all models are valid.

Table 6

Ordered logit regression results for models 1 to 6

Models	**2**	**2.1**	**2.2**	**2.3**	**2.4**	**2.5**
Dependant Variable: Corporate Governance Index (CGI)						
ROA	-2.568	-2.157				
	(-0.79)	(-1.20)				
ROE	-0.389		-0.502			
	(-0.73)		(-1.32)			
OSS	0.222			-0.350		
	(0.44)			(-1.24)		
PY	1.323*				1.383**	
	(1.78)				(2.10)	
OER	1.655					2.411***
	(1.61)					(2.61)
HDI	-0.765	-0.235	-0.404	-0.315	-0.755	-0.542
	(-0.66)	(-0.21)	(-0.35)	(-0.28)	(-0.65)	(-0.47)
GDP/capita	0.000	8.90e-06	0.000	9.81e-06	0.000	9.64e-06
	(0.51)	(0.42)	(0.48)	(0.47)	(0.61)	(0.46)
PAR 30	-0.012	-0.021	-0.024	-0.021	0.007	0.005
	(-0.07)	(-0.12)	(-0.13)	(-0.12)	(0.04)	(0.03)
Log age	0.031	0.117	0.113	0.097	0.048	0.041
	(0.12)	(0.46)	(0.44)	(0.38)	(0.19)	(0.16)
Log assets	0.178*	0.083	0.089	0.088	0.114	0.163
	(1.65)	(0.83)	(0.88)	(0.88)	(1.12)	(1.53)

Regulated MFIs	0.087	0.050	0.0508	0.063	0.068	0.083
	(0.50)	(0.29)	(0.30)	(0.37)	(0.40)	(0.49)
Individual lending	-0.640***	-0.706***	-0.712***	-0.710***	-0.725***	-0.643***
	(-3.81)	(-4.28)	(-4.34)	(-4.32)	(-4.41)	(-3.84)
Group lending	0.188	0.095	0.108	0.087	0.122	0.172
	(1.04)	(0.54)	(0.61)	(0.49)	(0.69)	(0.96)
Banks	0.395	0.521	0.490	0.503	0.510	0.444
	(1.02)	(1.37)	(1.27)	(1.31)	(1.34)	(1.15)
Banks (rural)	0.684	0.621	0.631	0.612	0.569	0.692
	(1.59)	(1.46)	(1.48)	(1.44)	(1.34)	(1.62)
NBFIs	0.165	0.259	0.214	0.229	0.165	0.208
	(0.48)	(0.76)	(0.63)	(0.67)	(0.48)	(0.61)
NGOs	-0.016	0.043	0.012	0.021	-0.034	0.014
	(-0.05)	(0.13)	(0.04)	(0.06)	(-0.10)	(0.04)
Threshold points						
α1	-3.549	-4.506	-4.606	-4.899	-4.395	-3.730
α2	-1.297	-2.252	-2.353	-2.646	-2.142	-1.479
α3	.320	-.639	-0.739	-1.033	-.531	0.136
α4	1.775	.801	0.702	0.408	.911	1.586
α5	3.344	2.354	2.256	1.961	2.472	3.148
α6	5.519	4.520	4.422	4.128	4.643	5.321
Log likelihood	-1325.488	-1330.277	-1330.124	-1330.228	-1328.782	-1327.588
LRChi-square	46.37***	36.79***	37.10***	36.89***	39.78***	42.17***
	(0.0002)	(0.0004)	(0.0004)	(0.0004)	(0.0001)	(0.0001)

*** Statistical significance at 1% level, ** Statistical significance at 5% level, * Statistical significance at 10% level

Omitted variables are non-regulated MFIs, MFIs with individual and group lending, and credit unions

ROA has negative and insignificant relationship with corporate governance system of MFIs which indicates that MFIs earning higher return on their assets may not necessarily have better governance system. In fact negative sign indicates that higher profits could lead to worse governance in MFIs but this relationship is not significant. ROE also has negative and insignificant relationship with CGI which again shows that as MFI earns more on its equity, it does not necessarily leads to good governance system. These results are in lined with the findings of Strom et al. (2014) who found no relationship between MFIs previous financial performance and corporate governance and with the results of Mersland and Strom (2009) who found no relationship between financial performance and internal governance mechanism of MFIs. These results are also in accordance with the results of correlation table 4 as no correlation was found between financial performance variables and corporate governance index.

As all financial variables are highly correlated with each other, we also compute the individual effect of each financial variable on CGI by controlling the effect of control variables. Results of ROA and ROE are consistent in all models respectively. Results of OSS are positive in model 2 which becomes negative when individual effect of OSS is seen on CGI in model 2.3. However, these results are not significant. We link these inconsistent

results to the fact that OSS is highly correlated with all other financial variables at 1% significance level as can be seen in correlation table 4. Negative and insignificant results of financial performance indicators could be justified by the particular nature of this sector as microfinance sector was developed as a reaction to the high poverty levels in Asia (Daher et al. 2013) so major players of microfinance work with the mission of social welfare instead of focusing on financial goals. Secondly the concept of socially responsible investments (SRI) is increasing day by day that is based on environmental, ecological, corporate governance and ethical criteria. Investors of SRI are interested mainly in returns with major focus on social benefits (Renneboog et al. 2008) and microfinance investments provide an attractive investment opportunity to socially oriented investors. Nature of the investor greatly influences MFIs structure and governance (Lapenu and Pierret 2006). So, the presence of those socially oriented investors in MFIs leads to more strict governance practices in those MFIs.

The results of OER show positive and insignificant relationship between OER and CGI in model 2 however these results become highly significant in model 2.5 at 1% level of significance. These results again show the negative impact of financial performance on corporate governance of MFIs indicating as the day to day expenses of MFIs increases, likelihood of better governance in those MFIs also increases as these could lead to strict and rigorous control of resources by top management. These results are in lined with the findings of negative impact of performance on corporate governance of firms in sectors other than microfinance (D'Aveni 1994; Farooque et al. 2007a; 2007b; Elsayed 2007).

Results of PY show positive and significant impact of PY on CGI at 10% level of significance in model 2. Significance of PY improves greatly to 5% level of significance in model 2.4 when individual impact of PY is seen on CGI by controlling the effect of control variables. Results of regression for PY shows that as MFI earn more returns on its portfolio there is greater likelihood that its corporate governance also improves. This may be because higher portfolio yield indicates more risky client profiles (Yu et al. 2014) and riskier firms are linked with more strict monitoring and control systems (Black et al. 2006). As PY is greatly determined by the interest rates MFI charges to its customers, many inefficient and non-profitable MFIs could earn positive portfolio yield on their loan portfolios by charging higher interest rates. Many MFIs avail this benefit when competition is low in the area in which they operate. This could be the reason behind contrasting results of PY with the results of other financial performance indicators (MicroRate and Inter-American development bank 2003). Some contrasting results are present in financial performance variables and we attribute these

contrasting results to the young age of microfinance sector of Asia hence, optimal level of governance has not settled fully in this sector (Strom et al. 2014). Results could also improve with better data set covering longer time period.

The control variable MFI size has positive and significant results at 10% significance level in model 2. These findings are in lined with the findings of Black et al. (2006). Even though these results become insignificant in models 2.2 to 2.5, nevertheless they indicate that larger MFIs have more complex structures so they need more defined corporate governance mechanism. Similarly results of age of MFI are positive and consistent in all models even though insignificant. These results show that as MFI ages and matures, it gains more experience. Hence it has increased likelihood of better governance system (Black et al. 2006). The insignificance of the results could be attributed to the fact that microfinance is an infant industry still in its development stages. The results for GDP per capita GNI show positive and insignificant impact of GDP per capita GNI on CGI. Even though insignificant results, positive sign of these results is in lined with the results of Strom et al. (2014). HDI has negative and insignificant impact on CGI in all models of table 6.

The results of regulatory status show positive and insignificant impact of regulatory status on corporate governance mechanism of MFIs. Positive sign depicts that regulated MFIs have more likelihood of good governance system than non-regulated MFIs. Results of lending methodology shows that MFIs offering only individual lending services are less likely to have good governance system than MFIs offering group or both types of lending services. Individual lending is negative and highly significant at 1% significance level which proves the fact that MFIs offering group lending are more likely to have improved governance. We attribute these findings to the fact that group lending type could enhance monitoring and reduce information asymmetry problems since members of one group are better informed and have social ties with each other (Hermes and Lensink 2007). Results also point out that conventional banks and rural banks are more likely to have good governance system than credit unions in MFIs.

Conclusion

Using a panel data of 173 MFIs of Asia for a period of five years from 2007 to 2011, regression analysis of the study is carried out in two parts; first part studies the impact of corporate governance on MFIs financial performance while the impact of financial performance on overall corporate governance mechanism of MFIs is analyzed in the second part of the analysis. The results show that profitability and sustainability of MFIs do not improve with good governance practices. Conclusions of the study relates with the

relationship of financial performance and corporate governance in MFIs. Corporate governance is little affected by the profitability status and sustainability of MFIs and these findings could be related to the increased trend of socially responsible investors in microfinance sector who greatly determines the governance structure of the MFIs in which they invest. Greater operating expenses do lead to better governance mechanism in MFIs which shows the negative impact of financial performance on corporate governance of MFIs indicating as the day to day expenses of MFIs increases, likelihood of better governance in those MFIs also increases as these could lead to more strict and rigorous control of resources by top management. However, contrasting effects are seen in the results of portfolio quality of MFIs which are positively linked with the corporate governance mechanism. These results are surprising as good governance is not affected by the profitability status of MFIs. This reinforces the fact that portfolio yield is not a good measure of overall financial performance of MFIs as it is determined by the interest rates MFI charges to its customers and many inefficient and non-profitable MFIs could earn positive portfolio yield on their loan portfolios by charging higher interest rates especially when the competition is low in their area of operation. The contrasting results of portfolio yield compared to other financial performance measures seems to point out that it is not a good measure of long term overall profitability of MFIs as it is only determined by the interest revenues of loan portfolio. Hence, there is a need for future research on this topic and these findings should be considered while evaluating and appraising MFIs performance.

Given the fact that, major players of microfinance sector of Asia works with the primary social goals, with focus on poverty alleviation and women empowerment, our results are very revealing and have important implications for researchers, policy makers and regulators of MFIs.

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