Three Essays on Entrepreneurial Finance

by

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Abstract

This dissertation consists of three essays that explore different areas within the framework of entrepreneurial finance. Specifically, I examine the issues related to corporate governance and firm strategy by focusing on three different entities including Chinese privately-held firms, microfinance institutions in developing countries and family firm in US. In my first essay, I investigate the relation between corporate financial distress and earnings management in politically-affiliated private firms in China. I further examine the joint moderating effects of political affiliation and regional development on this relation. The findings suggest that financially-distressed firms engage more in reporting small positive earnings relative to financially-healthy firms. In addition, political affiliation weakens the association between financial distress and small positive earnings management. A three-way interaction analysis indicates that the moderating effect of political affiliation is influenced by regional development.

In the second essay, I intend to shed light on social performance of microfinance institutions (MFIs) with respect to gender equality in MFIs' outreach and promotion of entrepreneurship. Rooted in the principles of homophily and risk aversion, I pinpoint a novel topic which is the association between female leadership in MFIs and their services targeting women clients, and find that when more women serve as managers, board members, and/or loan officers in MFIs, the MFIs increase their outreach to women due to gender affinity. Applying the institutional theory, I also analyze the relationship between MFI's outreach to female borrowers and entrepreneurship in an international setting, and highlight the moderating role played by legal environment in this relationship. Findings indicate that in countries with stronger legal environment, women are more inclined to

enter entrepreneurship.

In my last essay, I turn to look at family firm, which is perceived to behave quite differently compared with non-family firm. From socioemotional wealth preservation and board experience perspectives, I compile a sample of family-owned and -managed firms on the Standard and Poor's (S&P) 500 Index and examine the effect of family involvement on firm internationalization. The results show that the presence of a family member chairing the board impedes internationalization, but that this negative effect is reduced when board members are highly experienced. I also find that the involvement of multiple generations in the business contributes to the firm's internationalization, and that this effect is more pronounced when firms internationalize to geographically distant rather than closer regions. The contributions and implications of this study are also discussed.

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Chapter 1 General Introduction

Entrepreneurship plays a critical role in promoting local job creation and economics growth (Baumol, 1996). However, the success rate of Entrepreneurship is unexpected low with around 90% of start-ups failed (Sarasvathy, et al., 2013) and one of the most serious issues that entrepreneurs may encounter is the barrier to access the financial resource since there will be higher level of information asymmetry in their new ventures and lacking information about the history of firm operation and borrowing. In particular, the financial crisis in 2007 shrinks the supply of traditional funding source, suggesting even more obstacles for entrepreneurial financing. Traditionally, scholars exert efforts in exploring the role of financial intermediaries in facilitating entrepreneurial finance (See the review in Chemmanur & Fulghieri (2014)) such as angel, venture capitalist and microfinance institutions, each of which relies on their own mechanism (screening, active involvement, group lending, etc.) to alleviate the adverse selection and moral hazard issues. In terms of the new venture itself, the characters and actions that help firm reduce the financing barrier also intrigue the scholars for research. Another important stream of studies focus on the special entity "family firm" and its related firm financing and strategic issue.

This dissertation intents to explore several important issues in entrepreneurial finance by specifically looking at the following three primary entities including privately-held firms, microfinance institutions and family business and can enhance our understanding of firm behavior from the perspectives of both capital supplier and entrepreneurs. In China, government is important in resource allocation and firm with

political relation are found to enjoy easy access and lower cost of debt financing (Houston et al., 2014). On one hand, the comparative advantages from political relation could relieve the new ventures' incentive for manipulating firm performance to attract capital supplier. On the other hand, the political relation can also provide protection for new venture and its managers engaging in earnings management (manipulate performance) and reduce the associated risk. Therefore, it is interesting to know which forces give more impact on new venture earnings management behavior, especially when firm experiences the financial distress. In Chapter 2, by focusing on the Chinese privately-held firms, I empirically test the tradeoff between incentive and risk of new venture's earnings management behavior for debt financing.

Microfinance institutions (MFIs) are important financial intermediaries in developing countries. Unlike the traditional banks which usually shut the door to the poor, MFIs are aiming to provide financial capital to local poor residents. To mitigate the adverse selection and moral hazard issue, MFIs adopt a unique mechanism called group lending to avoid the screening and monitoring process. Basically, if one member in the group defaults, the whole group will be rejected for accessing the future credit. Thus, people will find the qualified group members with their own information and monitor each other for the capital usage. Women, the marginalized group in developing countries, suffer from gender inequality and lack opportunities in the formal labor market (Minniti et al., 2006). As women are the main targets for MFIs, more female clients may stimulate the local entrepreneurship. First, MFIs are willing to lend money to women, providing the financial resource basis of entrepreneurship. Second, the incentive of self-employment will be greater when they have the barrier to formal labor market. Finally, the repayment

pressure may push those unemployed female clients to start their own business for income generation. In Chapter 3, I empirically examine the relationship of female clients of MFIs and their entrepreneurship rate. In addition, I also explore the importance of legal environment on local entrepreneurship and MFIs characters in promoting female borrowing.

According to traditional agency theory, family firm is perceived to have lower agency cost and the concentration of family wealth in the family firm may prompt the company to diversify more than non-family firm in order to reduce the variance of income. However, the behavioral agency theory proposed by Wiseman and Gomez-Mejia (1998) points out that family firm may not be willing to diversify since the diversification usually requires outside financing which can impose loss of family Socio-emotional wealth (SEW), a utility function that is directly linked to family control of the business. Thus, the agency theory and behavioral agency theory propose two competing hypotheses related to the comparison between family firm and non-family firm in terms of the diversification strategy (Gomez-Mejia et al., 2010). Chua et al., (2012) specify that the family firms are not homogeneous entities and the variations in behavior of family firms might be as large as those between family and non-family firms. In Chapter 4, I only focus on family firm and check two sources of heterogeneities including family board chair and multiple generations' involvement and their impact on family firm international diversification.

Chapter 2 Financial Distress, Political Affiliation, and Earnings Management: The Case of Politically-Affiliated Private Firms

2.1 Introduction

The majority of studies about the relation between financial distress, earnings management, political affiliation and regional development focus on publicly-listed firms (see, for example, Sweeney, 1994; Leuz and Oberholzer-Gee, 2006; Wang et al., 2008; Chan et al., 2010; Cheng et al., 2010; Faccio, 2010; Chaney et al., 2011; Charitou et al., 2011). However, it is widely recognized that privately-held firms (e.g., firms that are not traded on public stock exchanges) also play an important role in economic growth and job creation in both developed and developing countries (Allen et al., 2005). For example, in China, the number of small and medium-sized privately-held firms exceeded 50 million by the end of 2011. According to China Statistics Yearbook 2012, Chinese privately-held firms account for 99.8% of the total number of enterprises and such privately-held firms contribute to 60% of the nation's GDP. Similarly, 29 million privately-held firms in the US contribute to 50% of the nation's GDP (Ding et al., 2016). The study of the underlying relation in the current chapter for privately-held firms fills a gap in the extant literature which is still underdeveloped (Burgstahler et al., 2006; Chaney et al., 2011; Ding et al., 2016).

Earnings management is rooted in information asymmetry (Beatty and Harris, 1999). Information asymmetry between insiders and capital providers enables financially-distressed firms to engage in earnings management to mitigate the negative impact of financial distress. This effort to present a fictitious financial position for the firm fits the

agency theory framework where firms could behave opportunistically to maximize their own benefits at the expense of external capital providers (Jensen and Meckling, 1976). The existing literature documents that financially-distressed public firms are motivated to manipulate earnings upward (see, for example, Sweeney, 1994; Cheng et al., 2010; Charitou et al., 2011). However, facing a restricted external financing channel and a low demand for high quality earnings, privately-held firms are more likely to engage in positive earnings management to prevent debt covenant violations than publicly-listed firms. Thus, this chapter explores the effect of financial distress on earnings management behaviors for privately-held firms. Jaggi and Lee (2002) show that the association between financial distress and earnings management is conditional on other factors, such as the ability of the financially-distressed firm to obtain waivers from debt covenant violations. The literature documents a significant link between political connection and earnings quality (see, for example, Faccio et al., 2006; Leuz and Oberholzer-Gee, 2006; Fan et al., 2007; Faccio, 2010; Chaney et al., 2011; You and Du, 2012; Ding et al., 2015). The current study considers the moderating effect of political affiliation on the association between financial distress and small positive earnings management.

China is characterized by uneven economic and institutional development across its different regions (Brandt and Li, 2003). In particular, the economic and market development of the eastern regions is more advanced than that of the western regions (Demurger, 2001; Fan and Wang, 2001). Therefore, it is likely that political affiliation has different implications on regions with different development. Accordingly, this chapter employs a three-way moderation model to investigate the effects of both political affiliation and regional development on the relation between financial distress and

earnings management. Using a sample of politically-affiliated privately firms in China between 1998 and 2009, I find that financially-distress firms are more likely to engage in small positive earnings management. In addition, a three-way moderation analysis indicates that such association is conditional on both the level of political affiliation and regional development.

This chapter contributes to the literature in several ways. First, the way in which financial distress affects earnings management for publicly-listed firms has been thoroughly investigated in the literature (see, for example, DeAngelo and DeAngelo, 1991; Sweeney, 1994; Cheng et al., 2010; Charitou et al., 2011). However, there is a void in the literature for research regarding this relation for privately-held firms, despite the significant role that privately-held firms play in economic growth and job creation. In addition, privately-held firms have limited access to external financing channels and are more likely to use positive earnings management to meet their debt covenants and to ensure continued debt financing. To the best of my knowledge, the current paper is the first to empirically explore the association between financial distress and earnings management for privately-held firms.

Second, while previous studies largely concentrate on the effect of political affiliation on earnings quality, the novel focus of the current study is on the moderating role political affiliation plays in the firm's earnings management choices. In addition, most prior studies investigate the effect of politically-connected agents (top management such as CEO, chair, president, etc.) on earnings quality (see, for example, Faccio et al., 2006; Leuz and Oberholzer-Gee, 2006; Fan et al., 2007; Faccio, 2010; Chaney et al., 2011; You and Du, 2012; Ding et al., 2015). However, the role of a politically-connected

principle (owner) is largely ignored (Ding et al., 2016b). Firms with politically-connected managers face different agency issues relative to firms with politically-connected owners, and thus political affiliation can affect these two types of firms differently. For example, politically-connected owners have a longer term orientation and their political power lasts longer. At the same time, politically-connected managers tend to be short-term focused and the benefit of their political power to the firm disappears upon resignation. The current study explores the moderating role of politically-connected principles on the association between financial distress and earnings management.

Third, this chapter extends the literature on regional imbalance by documenting that the moderating role of political affiliation is conditional on regional development. Specifically, I enhance the understanding of how regional-level development affects firm-level choices of earnings management.

Finally, this chapter has practical implications for privately-held firm owners, policy makers, investors, analysts, and auditors. For example, firm owners can learn how to make good use of political affiliation and imbalanced regional development to improve performance; policy makers should consider the potential influences of political affiliation and regional development when establishing regulations; and investors, analysts and auditors ought to consider factors such as financial distress, political affiliation and regional development when analyzing the firm's financial performance.

The remainder of chapter 2 is organized as follows: Section 2.2 reviews the literature and develops hypotheses. Section 2.3 describes my sample and research design. The empirical results are discussed in Section 2.4 with robustness tests offered in Section 2.5. Summary and conclusions are offered in Section 2.6.

2.2 Theoretical Development and Hypotheses

I address the direct and indirect impact of corporate financial distress on a firm's earnings management. The indirect impact is through the moderating effects of the firm-level political affiliation and provincial level development. In this section, I discuss the relations among these factors as studied in the relevant literature and proceed to develop the hypotheses.

2.2.1 Financial Distress and Earnings Management

The potential for corporate financial distress is an issue of concern to creditors, investors and managers. Though financial distress does not necessarily lead to corporate bankruptcy, financial distress could result in considerable financial losses for corporate creditors and investors. In addition, managers of firms facing financial distress normally suffer a bonus cut and a damaged reputation (Gilson, 1989). Financially-distressed firms face serious agency problems between managers and external capital providers due to asymmetric information (Jensen and Meckling, 1976). Information asymmetry between managers and external capital providers allows managers of financially-distressed firms to employ various approaches to minimize the negative effect of financial distress. Rogers and Stocken (2005) document that managers of financially-distressed firms are more likely to disclose optimistic forward looking information to mitigate the potential negative responses from the markets. Using a sample of US publicly-listed firms, Charitou et al. (2011) find that, compared with financially-healthy firms, distressed firms recognize good news in a more timely manner, while they recognize bad news in a less timely fashion. In other words, financially-distressed firms report earnings more aggressively. Lee (2012) finds that financial distress is one of the incentives for firms to

inflate reported cash flow from operations. Overall, these studies demonstrate that financially-distressed firms are motivated to use aggressive earnings management and forecasting techniques to mitigate the potential negative impact of financial distress.

As earnings management is rooted in information asymmetry (Beatty and Harris, 1999), it could be a more serious agency issue for firms with financial distress. The focus in the extant literature is mainly on publicly listed distressed firms' earnings management behavior. The empirical results indicate that financially-distressed public firms are motivated to engage in positive (aggressive) earnings management to escape accounting-based default triggered by debt covenant violations, and to avoid special government monitoring and a delisting threat (see, for example, Sweeney, 1994; Cheng et al., 2010; Charitou et al., 2011). Sweeney (1994) investigates managers' accounting responses to firms approaching accounting-based default. His findings suggest that managers engage in income-increasing earnings management to avoid accounting-based covenants violation. Using a sample of publicly-listed firms in China, Cheng et al. (2010) find that financially-distressed firms manage earnings upward to a threshold in order to avoid special government monitoring and a delisting threat. Similarly, Charitou et al. (2011) document that distressed firms engage in positive earnings management more frequently than healthy firms.

Different from the above mentioned studies, this chapter explores earnings management behavior of financial distressed private firms that have no market for their ownership claims. Accordingly, the agency conflict in privately-held firms is driven by the information asymmetry between owners and debtholders. Weak reporting regulations and a low demand for higher quality earnings motivate privately-held firms to engage in

earnings management (Burgstahler et al., 2006; Ding et al., 2016).[1] In addition, privately-held firms face a restricted channel for external financing. Therefore, they are more likely to engage in positive earnings management aimed at preventing debt covenant violations to ensure a continued access to debt financing than publicly-listed firms. Thus, I make the following prediction based on the above discussion:

> **Hypothesis 2.1:** *Financially-distressed private firms engage in positive earnings management more than financially-healthy firms.*

2.2.2 The Moderating Effect of Political Affiliation and Regional Development

Empirical evidence from the political affiliation literature shows that politically-connected firms differ from non-connected firms in terms of earnings quality. However, the results of the direction of the influence of political connection on earnings quality are mixed. On one hand, career development and weak penalty motivate politically-connected managers to engage in positive (aggressive) earnings management (see, Leuz and Oberholzer-Gee, 2006; Chaney et al., 2011; You and Du, 2012). Managers with political connections could employ positive earnings management to build up their portfolio, which will help the managers to be promoted to a higher position (Leuz and Oberholzer-Gee, 2006). Chaney et al. (2011) argue that a politically-connected top management faces less pressure to respond to a market demand for high quality earnings. They find that firms with politically-connected managers demonstrate more aggressive earnings management than those with non-connected managers. In addition, You and Du

[1] In China, privately-held firms face different auditing requirements. State-owned and foreign-owned private firms are required to have their financial statements audited. However, for non-state-owned private enterprises, the purchase of audit services is voluntary. Some firms that anticipate a future public listing may have their financial statements audited, while other firms which are subsidiaries of large companies may also acquire an audit (Ding et al., 2016a).

(2012) suggest that politically-connected top executives are less likely to be fired compared with their non-connected counterparts. So, the risk and penalty for engaging in positive earnings management is relatively low for politically-connected managers.

On the other hand, politically-connected managers could use negative (conservative) earnings management to obtain government bailouts and negotiate for more government assistance in the form of subsidies (see, Faccio et al., 2006; Fan et al., 2007; Faccio, 2010). Faccio et al. (2006) document that, among government bailed-out firms, firms with politically-connected managers exhibit worse financial performance than their non-connected counterparts. Using a sample of publicly-listed firms in China, Fan et al. (2007) find that firms with politically-connected CEOs have a poorer earnings growth and a lower return on sales relative to firms with non-connected CEOs. A cross-country study by Faccio (2010) suggests that firms with politically-connected managers underperformed, in terms of return on assets, when compared to those with non-connected managers.

To sum up, most prior studies investigate the effect of politically-connected agents (top management such as CEO, chair, president, etc.) on earnings quality (see, for example, Faccio et al., 2006; Leuz and Oberholzer-Gee, 2006; Fan et al., 2007; Faccio, 2010; Chaney et al., 2011; You and Du, 2012; Ding et al., 2015). However, the role of a politically-connected principle (owner) is largely ignored (Ding et al., 2016b). The current study explores the moderating effect of a politically-connected principle on the association between financial distress and earnings management. Firms with politically-affiliated principals have political connections through which they have the ability to access financial resources and government support, which are especially important for

financially underperforming firms (see Faccio, 2006). Thus, political affiliation alleviates firm incentives to engage in positive earnings management.[2] This leads to the following hypothesis:

> **Hypothesis 2.2:** *Financial distressed private firms with a higher level of political affiliation are less likely to engage in positive earnings management.*

Prior research on regional development suggests that China is characterized by imbalanced regional economic and institutional development (Brandt and Li, 2003). In particular, the economic and market development of the eastern regions is more advanced than that of the western regions (see, Demurger, 2001; Fan and Wang, 2001).[3] As a result, the implementation of relevant laws varies across different regions with a relatively weak investor protection and legal enforcement in less developed regions. Wang et al. (2008) show that state-owned enterprises in China are more likely to hire small local auditors than top national auditors. However, this auditor selection tendency is attenuated with the development of regional institutions. These findings are supported by the argument that governments use political pressure to compel small local auditors to collude with state-owned enterprises, especially in regions which are less economically and institutionally developed. Chan et al. (2010) investigate how regional differences in the economic and institutional development affect Chinese auditors' reporting behavior. Their results suggest that auditors in economically and institutionally weak regions are

[2] My sample consists of only privately-held firms with different levels of government affiliation. Thus, politically-affiliated firms could use their political power as a substitute for high-quality earnings demanded by private debt market participants (e.g., banks).

[3] The average GDP per capita of the five most developed eastern regions in 2013 is 85,196 RMB (14,072 USD) whereas that of the five least developed western regions is 25,791 RMB (4,260 USD).

more likely to issue unqualified audit opinion (clean opinion) than those in economically and institutionally strong regions.

The implication is that audit quality is relatively low in less developed regions relative to developed regions. This creates incentives for managers of politically-affiliated firms operating in undeveloped regions to undertake earnings management since their opportunistic behavior is less likely to be detected. Ding et al. (2016b) document that regional development moderates the effects of political affiliation on earnings management and firm performance. Specifically, the associations between political affiliation and earnings management and between political affiliation and firm performance are weakened with regional development. Underdeveloped regions are characterized by a strong government (rather than market) role in resource allocation as well as by relatively weak investor protection and legal enforcement. Thus, firms from less developed regions are more likely to benefit from political affiliation. Therefore, I expect a stronger moderating effect of political affiliation on the association between financial distress and earnings management in underdeveloped regions. This assertion is tested with the following hypothesis:

> **Hypothesis 2.3:** *The moderating effect of political affiliation on the association between financial distress and positive earnings management is more pronounced for firms that operate in less developed regions.*

2.3 Research Methodology

2.3.1 Data

Financial information on politically-affiliated private firms is obtained from the China Non-listed Company Database collected by the GTA Information Technology Company Limited (www.gtadata.com). Data are collected from the National Bureau of China. [4] The GTA Information Technology Company Limited assembles information on Chinese securities from markets such as the Chinese stock and bond markets. In addition, it reports financial and governance data on both publicly-listed and privately-held firms. Previous research has confirmed the reliability of this broad database (see, Kato and Long, 2006; Wu, 2011).

The China Non-listed Company Database provides detailed accounting information for politically-affiliated private firms as well as their location of operation. While all the firms in the database are politically affiliated, this affiliation differs across firms in terms of the level of government connectedness.[5]. I omit close to 25% of my near 4 million firm-year observations in the initial sample for which the database does not provide the level of government affiliation. Since firms with very little or no debt cannot experience financial distress (or bankruptcy), I only keep firms with at least 10% of leverage ratio (long-term debt over total assets).[6] After applying the aforementioned filters the final sample size is 292,223 firm-year observations of 131,093 firms spread over the 1998 to 2009 period.

4 To compute my main independent variable, which is a proxy of financial distress, I require several accounting measures, some of which are not available in the database from 2010 to 2012. Thus, my sample is limited to data from the 1998 to 2009 period.

5 This database is limited to politically-affiliated private firms because these firms are required to report their information to National Bureau of China.

6 For robustness, I also try the 5% and 15% as the thresholds. The results are quantitatively similar and are reported in Columns (3) and (4) of Table 2.7.

2.3.2 Financial Distress

One challenge to compute the main variable of interest, financial distress, is the lack of extant proxy for Chinese privately-held firms in the literature. Altman (1968) put forward the Z score as a measure of financial distress by employing 5 weighted financial ratios. However, it only gauges the financial health of publically-listed firms in the US. Altman (1983, 1993) made several adjustments to the proxy with only four factors so that it can be applied to privately-held firms, while Altman (2005) modified the coefficients of these four factors to adopt the model for emerging markets. Thus, the Altman's (2005) emerging-markets model yields a financial distress measure called the Z(EM) score that is a more appropriate measure for privately held Chinese firms.[7] The Z(EM) score is given by the following model:

$$Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4 + 3.25 \qquad (2.1)$$

where:

X_1= Working Capital/Total Assets,

X_2= Retained Earnings/Total Assets,

X_3= Operating Income/Total Assets, and

X_4= Book Value of Equity/Total Liabilities

Firms with a higher Z(EM) score are perceived to be more financially healthy. For ease of interpretation, I take the negative value of a firm's Z(EM) score (*Neg.Z*). Thus, the *Neg.Z* value indicates the degree of financial distress and captures the likelihood that a company will not be able to meet its financial obligations to its creditors.

[7] In general, privately-held firms' financial statements lack credibility partly due to weaker auditing requirement. However, under the State-Owned Property Administration Law, Chinese state-owned private enterprises need to have their financial statements audited by accounting firms on an annual basis (Ding et al. 2016). My sample contains only state-owned private firms, whose financial statements are audited by independent auditors. Thus, financial-statement credibility in my sampled firms is not a concern.

2.3.3 Earnings Management

Discretionary accruals, a measure that reflects the magnitude to which managers are able to manipulate accounting earnings, are widely accepted to proxy for earnings management in the literature (see, for example, Dechow et al., 1995; Becker et al., 1998; Jenkins et al., 2006). Managers can manipulate earnings upward to improve the firm's perceived performance. At the same time negative discretionary accruals can be used to drop the current earnings downward so that earnings can be smoothed in future years. The two potential directions of earnings management with discretionary accruals make it difficult to distinguish between positive and negative earnings management empirically.[8] To avoid this issue, I adopt the measure for earnings management with a positive target (Charitou et al., 2011) to proxy earnings management, as the manager is likely to report small positive earnings when firm experiences losses.

Distressed firms trying to avoid the violation of debt covenants, have an incentive to report high earnings in a fear of penalty (Charitou et al., 2011). Furthermore, consecutive positive earnings for firms provide a positive signal that is especially important for debtholders. Specifically, this positive signal is important when the firm negotiates new debt financing, which is a crucial source of outside financing for privately-held firms. To empirically examine whether firms manipulate earnings towards a positive target more frequently when they experience financial distress, I use a dummy variable, *EM*, which takes the value of one if the ratio of net income to total assets is between 0 to 0.01, and zero otherwise (Lang, Raedy, and Yetman, 2003; Lang, Raedy, and Wilson, 2006; Charitou et al., 2011).

[8] A positive coefficient can imply an increase in positive earnings management as well as indicate a reduction in negative earnings management.

2.3.4 Moderators

2.3.4.1 Political Affiliation

The main moderator that could influence the relationship between financial distress and earnings management is political affiliation. It captures a firm's intrinsic relation with government or state-owned enterprises. The political affiliation data for privately-held firms reported in the GTA database identify the affiliation level with six different layers of government (or equivalent government affiliated entities) including the following governments: central government, provincial government, municipality, county, town, and village.

These different levels of political affiliation reflect heterogeneity in political power in financial resource allocation (rather than heterogeneity in ownership structure). Thus, I employ an ordinal variable to capture the increasing political power from a village government level to central government level. Specifically, affiliations with central government, provincial government, and municipal government are valued at 6, 5, and 4, respectively while those affiliations with governments of lower political power including county level, town level, and village level are recorded as 3, 2, and 1, respectively. This ordinal variable may not be accurate to determine the true scale of difference in political power between each layer of government, but it is appropriate for tracking the general increasing trend of political power from the village government to the central government.

2.3.4.2 Regional Development

Mainland China has experienced tremendous development since the central government carried out reforms and a policy of openness in 1978. However, the degree of

economic development in different Chinese regions varies with a large gap between eastern and western regions (see, Brandt and Li, 2003). The Chinese National Economic Research Institute (NERI) provides comprehensive indices which summarize imbalanced development for each region and major municipality. These indices capture: (i) the government-market relationship (i.e., the market role in resource allocation); (ii) the development of non-state-owned sectors (i.e., the percentage of total industrial output that is contributed by the private sector); (iii) the development of product markets; (iv) the development of factor markets (a market for the trading of the factors of production); and (v) market intermediates (i.e., the existence of independent accounting and auditing firms) and the legal environment (i.e., protection of property rights). Fan and Wang (2001) originally compiled these data where higher value of the NERI index indicates higher regional development. In this chapter I use the most recent version of this database, which provides an annual index of regional development for the 1998-2011 period. The reliability of the NERI index has been established by prior research (see, for example, Chen et al., 2006; Lin et al., 2009).

2.3.5 Empirical Model and Control Variables

Table 2.1 Variable Definition and Computation

Variable	Definition and Computation
Small Positive Earnings Management [*EM*]	An indicator variable, which takes the value of one if the ratio of net income to total assets is between 0 and 0.01, and zero otherwise (Lang, Raedy, and Yetman, 2003; Lang, Raedy, and Wilson, 2006; Charitou et al., 2011).
Negative Amended Z [*Neg.Z*]	The negative value of a firm's amended Z-score from Altman (2005) model which is applicable to emerging market firms.
Political Affiliation [*PA*]	An ordinal variable that captures the political power of each layer of government that firm is affiliated with. There are 6 layers of government assigned with different values based on their correspondent political power. Specifically, affiliation with the highest central government is recorded as 6 while affiliation with the lowest village level is valued at 1. Other levels of affiliation are lying between 1 and 6 accordingly.
Regional Development [*NERI*]	The regional development index: higher value indicates higher economic development.
Firm Leverage [*Leverage*]	Firm leverage (long-term debt scaled by total assets).
Firm Size [*Size*]	Firm size (natural log of total assets).
Firm Age [*Age*]	Firm age measured by the number of years a firm has been in business.
Fixed Assets [*PPE*]	Property, plant and equipment scaled by total assets.
Firm Loss [*Loss*]	An indicator variable that takes the value of 1 for firms with negative net income, and 0 otherwise.
GDP Growth Rate [*GDP*]	GDP growth rates in different regions.

My empirical analysis incorporates regression models used in prior research in relevant literature (see, for example, Burgstahler et al., 2006; Chaney et al., 2011; Liu et al., 2016). The empirical analysis in the current paper mainly addresses the relation between financial distress and earnings management for privately-held firms and whether this relation is moderated by political affiliation and regional development. As pointed out by Petersen (2009), the standard errors of an OLS regression applied to panel data

may be biased due to residuals that are correlated at the cross sections and over time. Therefore, I correct the standard errors of the OLS coefficients for firm-level clustering and for heteroscedasticity. I adopt the following moderated moderation model:

$$EM = a_0 + a_1 Neg.Z + a_2 PA + a_3 NERI + a_4 Neg.Z*PA + a_5 Neg.Z*NERI + a_6 PA*NERI + a_7 Neg.Z*PA*NERI + a_8 Size + a_9 Lev + + a_{10} Loss + a_{11} Age + a_{12} PPE + \varepsilon, \quad (2.2)$$

where *EM* is the dependent variable to indicate whether firm manage the earnings to a positive target. *PA* is an ordinal variable for political affiliation that capture the heterogeneous political power of different layers of government that firms are affiliated with. *Neg.Z* is the negative value of the Altman (2005) Z(EM) score (where a higher *Neg.Z* value implies a higher degree of financial distress). *NERI* refers to the regional index of marketization in China, representing the level of developments. I also include the following control variables which are more or less related to operating cash flow and firm performance: *Size* is calculated as the natural logarithm of total assets; *Lev* is measured by long-term debt scaled by total assets; an indicator variable (*Loss*) is incorporated to control for profitability (*Loss* takes the value of 1 for firms with negative net income, and 0 otherwise); firm age (*Age*) is measured by the number of years a firm has been in business; *PPE* refers to the dollar value of property, plant and equipment scaled by total assets. Consistent with prior literature, industry and year dummy variables are included in my regression model to alleviate the concern that the impact of the independent variables of interest is due to heterogeneities within industries and years (Liu and Magnan, 2016). Table 2.1 provides the definitions for all variables incorporated in the analysis.

2.4 Empirical Results

Table 2.2 The Distribution of Observations by Region

This table summarizes the distribution of my sample observations by region.

Region	Observations	Percentage	Region	Observations	Percentage
Anhui	10,201	3.49%	Jiangxi	7,999	2.74%
Beijing	5,214	1.78%	Jilin	5,827	1.99%
Chongqing	4,581	1.57%	Liaoning	11,393	3.90%
Fujian	5,956	2.04%	Ningxia	1,304	0.45%
Gansu	6,047	2.07%	Qinghai	1,033	0.35%
Guangdong	18,418	6.30%	Shaanxi	7,434	2.54%
Guangxi	7,700	2.63%	Shandong	22,037	7.54%
Guizhou	5,879	2.01%	Shanghai	8,377	2.87%
Hainan	528	0.18%	Shanxi	11,570	3.96%
Hebei	15,062	5.15%	Sichuan	20,495	7.01%
Heilongjiang	7,992	2.73%	Tianjin	6,294	2.15%
Henan	22,508	7.70%	Tibet	203	0.07%
Hubei	19,967	6.83%	Xinjiang	3,600	1.23%
Hunan	11,476	3.93%	Yunnan	7,621	2.61%
Jiangsu	22,972	7.86%	Zhejiang	12,535	4.29%
			Total	**292,223**	**100%**

Table 2.2 reports the distribution of my sampled firms by geographical region. It shows that the number of firm-year observations differs substantially by region, ranging from 528 in Hainan and 203 in Tibet to 8377 in Shanghai and 22037 in Shandong. In addition, there will be more firm-year observations for those firms located in developed regions in east and southeast parts of China such as Jiangsu, Zhejiang and Shangdong.

Table 2.3 Financial Distress and Earnings Management by Political Affiliation and Regional Development

Panel A and Panel B compare the means of negative Altman (2005) amended Z-score (Neg.Z) applied for emerging market and small positive earnings management (*EM*) conditional on their political affiliation and firm location, respectively. All remaining variables are as defined in Table 2.1. The number of observations is in parentheses. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

Panel A: Negative Z(EM) score (*Neg.Z*)

		NERI		Difference
		Low	High	T-tests
PA	Low	-3.933 101,625	-4.850 95084	50.61***
	High	-2.700 46,773	-3.500 48741	33.12***
Difference T-tests		-56.22***	-61.75***	

Panel B: Small Positive Earnings Management (*EM*)

		NERI		Difference
		Low	High	T-tests
PA	Low	0.164 101,625	0.141 95084	14.37***
	High	0.161 46,773	0.148 48741	5.65***
Difference T-tests		1.48	-3.61***	

*p<0.10, **p<0.05, ***p<0.01

Table 2.3 compares firms' financial condition and earnings management across two sets of subsamples distinguished by political affiliation (*PA*) and the degree of regional development (*NERI*). Panel A describes the means of negative Z-score (*Neg.Z*) in different subsamples. Horizontally, firms in highly developed regions (above the median) tend to have a lower negative Z-score (which implies a lower likelihood of financial distress) than firms in less developed regions. Vertically, firms with a lower level of political affiliation tend to be in a better financial condition than those with a higher level of political affiliation. This result may be due to the lower efficiency of

politically-affiliated private firms (Fan et al., 2007; Boubakri et al., 2008; Jackowicz et al., 2014). All the T-tests confirm that the means from various subgroups are significantly different. Similarly, the level of small positive earnings management (*EM*) by subsample is displayed in Panel B. These results indicate that firms with a lower level of political affiliation are more likely to engage in small positive earnings management when compared with firms with a higher level of political affiliation. This is because firms with a higher level of political affiliation are more likely to use their political power rather than engage in positive earnings management when facing financial distress. The results in Table 2.3 provide initial evidence that the likelihood of earnings management in financial distressed firms may be influenced by their level of political affiliation as well as by the regional development.

Table 2.4 Descriptive Statistics

This table reports the descriptive statistics of key variables used in my primary tests. All variables are as defined in Table 2.1.

Variable	Obs.	Mean	S.D.	25%	Median	75%
EM	292223	0.153	0.36	0.000	0.000	0.000
Neg.Z	292223	-3.962	3.994	-6.056	-4.136	-2.196
PA	292223	3.141	1.194	2.000	3.000	4.000
NERI	292223	5.576	1.817	4.070	5.150	6.590
Leverage	292223	0.311	0.188	0.163	0.253	0.406
Size	292223	10.351	1.743	9.136	10.229	11.469
Age	292223	18.818	15.778	6.000	13.000	30.000
PPE	292223	0.478	0.223	0.308	0.470	0.643
Loss	292223	0.373	0.484	0.000	0.000	1.000
GDP	292223	0.121	0.062	0.076	0.114	0.169

Table 2.4 summarizes the descriptive statistics of all variables after winsorizing at the 1 and 99 percentiles to mitigate the undesirable influence of outliers. There are a total of 292223 firm-year observations of 131,093 firms for the three-way moderation analysis

after eliminating missing observations through the process of computing all variables. The mean (median) value of the earnings management measure is 0.153 (0). The likelihood of financial distress is proxied by *Neg.Z* with a mean of -3.962. *PA* is an indicator variable for firm-level political affiliation and it indicates that less than 25% of the firms in my sample are politically affiliated at the central government or provincial government level. The average leverage ratio is about 31% as I exclude those firms with leverage ratio less than 10%. The average firm in my sample is close to 18 years old. Finally, less than 50% of firm observations report a negative net income.

Table 2.5 Variable Correlations

This table reports the correlation matrix of the main variables in my regression analysis. All variables are as defined in Table 2.1. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

	EM	*Neg.Z*	*PA*	*NERI*	*Leverage*
EM	1				
Neg.Z	0.001	1			
PA	0.039***	0.217***	1		
NERI	-0.033***	-0.126***	0.007***	1	
Leverage	-0.000	0.163***	0.067***	-0.025***	1
Size	0.070***	0.064***	0.461***	0.160***	-0.008***
Age	0.046***	0.206***	0.332***	-0.097***	-0.038***
PPE	0.004**	0.203***	0.082***	-0.036***	0.224***
Loss	-0.329***	0.414***	0.250***	-0.097***	0.110***
GDP	-0.025***	-0.076***	0.065***	0.472***	0.000
	Size	*Age*	*PPE*	*Loss*	*GDP*
Size	1				
Age	0.155***	1			
PPE	0.116***	0.003	1		
Loss	0.064***	0.203***	0.066***	1	
GDP	0.138***	-0.044***	-0.004**	-0.072***	1

*p<0.10, **p<0.05, ***p<0.01

Table 2.5 displays the correlation matrix where most tested variables are significantly correlated with each other. Earnings management is found to be positively

but not significantly related to negative Z-score, suggesting that financial distressed firms may manipulate earnings towards the positive target under the influence of other factors such as political affiliation and regional development. In addition, earnings management is positively correlated with political affiliation and negatively correlated regional development. Thus, firms with high level of political affiliation located in less developed regions are inclined to engage in manipulating negative earnings to small positive earnings. Moreover, political affiliation is positively correlated with negative Z(EM)-score, indicating that firms with high level of political affiliation are more likely to suffer from financial distress. Finally, firms affiliated with higher level of government mainly operate in developed regions.

Table 2.6 Financial Distress and Earnings Management

This table reports the regression results of the association between financial distress and earnings management conditional on political affiliation and regional development. All variables are as defined in Table 2.1. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Small Positive Earnings Management (*EM*)						
Neg.Z	0.008**	0.007***	0.021***	0.007***	0.021***	0.014***	0.027***
	(43.96)	(39.54)	(46.42)	(39.39)	(46.32)	(22.58)	(20.06)
PA		0.022***	0.003***	0.022***	0.003***	0.023***	0.005**
		(26.5)	(3.28)	(25.89)	(2.82)	(10.62)	(2.10)
NERI				-0.004***	-0.004***	0.012***	0.001
				(-7.40)	(-7.36)	(8.93)	(1.03)
*Neg.Z*PA*			-0.004***		-0.004***	-0.005***	-0.009***
			(-33.60)		(-33.57)	(-34.16)	(-21.27)
*Neg.Z*NERI*						0.001***	-0.001***
						(13.85)	(-4.40)
*PA*NERI*						-0.004***	-0.000
						(-10.41)	(-1.05)
*Neg.Z*PA*NERI*							0.001***
							(10.52)
Leverage	0.049**	0.042***	0.043***	0.042***	0.043***	0.043***	0.042***
	(11.73)	(10.18)	(10.43)	(10.07)	(10.32)	(10.32)	(10.25)
Size	0.019**	0.013***	0.012***	0.013***	0.012***	0.012***	0.012***
	(36.78)	(23.59)	(21.54)	(24.13)	(22.08)	(21.65)	(21.65)
Age	0.002**	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***
	(28.83)	(21.87)	(23.25)	(21.61)	(22.99)	(22.83)	(22.67)
PPE	-	-0.053***	-0.050***	-0.054***	-0.051***	-0.051***	-0.052***
	(-13.66)	(-13.69)	(-13.10)	(-14.01)	(-13.42)	(-13.43)	(-13.50)
Loss	-	-0.326***	-0.323***	-0.327***	-0.323***	-0.324***	-0.324***
	(-	(-185.41)	(-185.15)	(-185.45)	(-185.2)	(-185.37)	(-185.3)
Year	yes	yes	yes	yes	yes	yes	yes
Industry	yes	yes	yes	yes	yes	yes	yes
Obs.	292223	292223	292223	292223	292223	292223	292223
F_value	655.0**	638.0***	632.9***	627.6***	622.7***	603.7***	593.9***
Adj_R^2	0.159	0.162	0.165	0.162	0.166	0.166	0.167

*p<0.10, **p<0.05, ***p<0.01

Table 2.6 presents the main regression results, where the first 6 columns report the findings from baseline models. The Z(EM)-score (*Neg.Z*) coefficient in Column (1) is positive and significant. Thus, in support of Hypothesis 2.1, financially-distressed firms

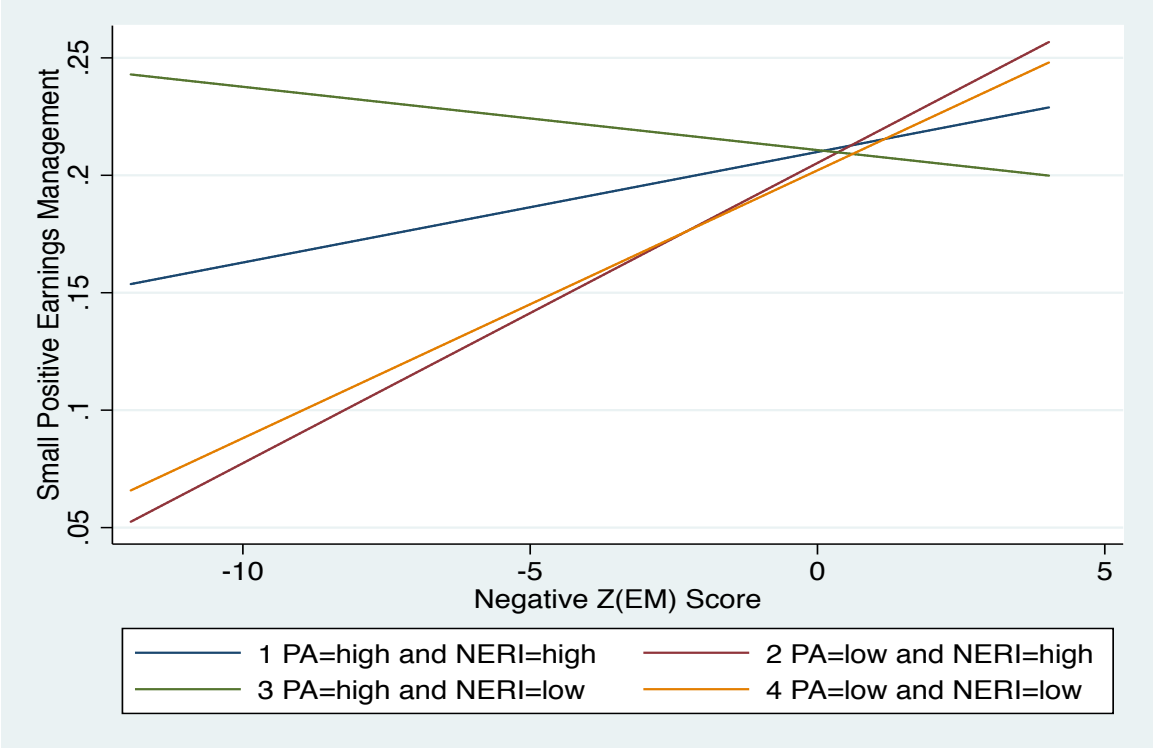
are overall more likely to engage in small positive earnings management. Specifically, with a one standard deviation increase in a firm's financial distress condition, I observe a close to nine percent of a standard deviation increase in the likelihood of small positive earnings management. To test Hypothesis 2.2, the level of political affiliation is included in the model specifications in column (3). The coefficient of the interaction term between financial distress and political affiliation (*Neg.Z*PA*) is significantly negative. Thus, in agreement with Hypothesis 2.2, political affiliation exerts a significant impact on the relation between financial distress and earnings management. As discussed above, high level of political affiliation can provide firms with access to outside financing and protect them from debt covenant violations. Thus, firms with a high level of political affiliation do not need to manage negative earnings to appear as small positive earnings, as they may secure debt financing through political power.

Next, I investigate the impact of regional development on the moderating effect of political affiliation plays in the association between financial distress and earnings management. Regional economic and legal development can limit the power of government in financial resource allocation. As stated in equation (2.2), I employ the moderated moderation model to investigate the three-way interaction effect of political affiliation and regional development. Results are reported in column (7) of Table 2.6. The coefficients of the main independent variables (*Neg.Z, PA* and *NERI*) and their interaction terms are all significant. It suggests that the moderating effect of political affiliation on the association between financial distress and earnings management is conditional on regional development, which supports my Hypothesis 2.3. In addition, control variable coefficients are significant for all model specifications. Overall, these results indicate that

older and larger firms with more debt are more likely to engage in earnings management; while firms with more fixed assets are less likely to engage in earnings management. My moderated moderation model explains approximately 15% of the variation of earnings management and the F-test indicates that the model is significant at the 1% level.

Figure 2.1 Three-way Interaction Effects from the Moderated Moderation Model

This figure describes the association between financial distress and earnings management that is conditional on political affiliation and regional development. Political affiliation (*PA*) is an ordinal variable that captures the political power of the government that firms are affiliated with. *NERI* represents the regional development index in China, with a higher value indicating higher development. The three-way interaction figure is based on in Dawson and Richter (2006). Lines 1, 2, and 4 have significantly positive slopes while Line 3 has significantly negative slope. When comparing the slopes of any given two lines, they are significantly different from each other.



To have a complete understanding of how political affiliation and regional development moderate the association between corporate financial distress and small

positive earnings management, I display three-way interaction linear figures from the moderated moderation analysis in Figure 2.1 (see Dawson and Richter, 2006). This figure shows that only financially-distressed firms with a higher level of political affiliation and operate in less developed regions are less likely to manipulate their reports to reflect small positive earnings. In contrast, there are obvious engagements in earnings management of firms in the other three categories, among which firms with a lower level of political affiliation and operate in more developed regions show the highest likelihood of small positive earnings management.[9] Politically-affiliated firms have the privilege in accessing financial resources and government support, especially those with poor financial performance (Faccio, 2006). Thus, political affiliation alleviates firm incentives to engage in small positive earnings management. However, in developed regions with a high level of marketization, the market plays a more important role than government in financial resource allocation. As a result, even for firms with a high level of political affiliation, the regional development can restrict the power of government in facilitating firms access to outside debt financing. At the same time, the potential bonus cut due to poor financial performance and the potential penalty from the violation of debt covenants motivate managers to report small positive earnings rather than negative income.

This is consistent with my finding that firms with a higher level of political affiliation and operate in less developed regions are less likely to engage in small positive earnings management as the affiliated government could secure their debt financing and

[9] The other three categories are: firms operating in more developed regions with a low level of political affiliation (*PA*=low and *NERI*=high; "high" and "low" are based on above and below one standard deviation from the mean of *PA* and *NERI,* respectively); firms operating in more developed regions with a high level of political affiliation (*PA*=low and *NERI*=low); and firms operating in less developed regions with a low level of political affiliation. There are significant differences among firms in these three categories with respect to earnings management.

protect them from penalty due to covenant violations. In contrast, firms affiliated with a lower level of government in highly developed regions are most likely to report small positive earnings to avoid covenant violations. This is because the political power of the government these firms affiliated with is weak in resource allocation and the developed market further restricts the government power. Thus, the incentives for these firms to engage in small positive earnings management are the highest among the four categories.

In addition to the sharp contrast between firms with high level of political affiliation and operate in less developed regions and those with low level of political affiliation and locate in developed regions, the significant differences for other pairwise comparisons also provide practical implications for practitioners and policy makes. First, regardless of the location, firms with high level of political affiliation are always less likely to manipulate earnings to small positive targets compared with those with low level of political affiliation, indicating the necessity of better monitoring for those firms affiliated with lower level of government. Second, for firms with same level of political affiliation (line 1 Vs. line 3 and line 2 Vs. line 4), those located in developed regions are more likely to engage in earnings management. As it is discussed, regional development can impact the earnings management of political affiliated firms through two channels. First, it can restrict the political power of government in resource allocation as the market plays a more important role. As a consequence, firms will have stronger incentive for earnings management. Second, regional development can result in better legal environment and outside monitoring, which in turn can increase the firm's risk of being detected for engaging in earnings management. Thus, the steeper slopes of line 1 and 2 illustrate that

the managerial incentive for earnings management outweighs the potential risk of that to be caught.

2.5 Robustness Tests

Table 2.7 Endogeneity and Sub-samples Test

This table reports the results of the 2SLS procedure for the relation between financial distress and earnings management with instrument variable in the first two columns, GDP growth in each province. The last four columns presents the results of four sub-samples which are firms with high level of political affiliations in more developed region (3), firms with low level of political affiliations in less developed region (4), firms with low level of political affiliations in more developed region (5), and firms with high level of political affiliations in less developed region (6). All remaining variables are as defined in Table 2.1. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Neg.Z	Small Positive Earnings Management (*EM*)				
Neg.Z		0.033***	0.004***	0.009***	0.011***	-0.001***
		(2.80)	(8.42)	(28.80)	(33.48)	(-3.40)
GDP	-1.540***					
	(-7.26)					
Leverage	1.036***	0.023*	0.037***	0.061***	0.066***	0.008
	(16.55)	(1.76)	(3.96)	(9.05)	(9.07)	(0.88)
Size	0.074***	0.017***	-0.000	0.031***	0.015***	0.007***
	(9.86)	(16.74)	(-0.13)	(32.81)	(16.83)	(5.48)
Age	0.040***	0.001	0.001***	0.002***	0.001***	0.001***
	(53.77)	(1.38)	(12.09)	(20.26)	(11.78)	(11.26)
PPE	3.99***	-0.152***	-0.025***	-0.039***	-0.081***	0.026***
	(74.92)	(-3.24)	(-2.71)	(-6.06)	(-12.8)	(2.76)
Loss	2.056***	-0.370***	-0.326***	-0.318***	-0.274***	-0.418***
	(106.50)	(-15.29)	(-78.52)	(-119.80)	(-100.08)	(-90.50)
Year	yes	yes	yes	yes	yes	yes
Industry	yes	yes	yes	yes	yes	yes
Obs.	292223	292223	48741	101625	95084	46773
F_value	539.6***	648.2***	120.0***	272.1***	193.4***	155.1***
Adj_R^2	0.178	0.152	0.177	0.155	0.121	0.287

*p<0.10, **p<0.05, ***p<0.01

My analysis may suffer from endogeneity issues, both theoretically and empirically. I adopt several accounting measures to proxy for financial distress and earnings management. This means that the correlation between the accounting measure for financial distress and that of earnings management could lead to a simultaneity problem. Besides, we also lack the information of CEOs characters which can largely influence their opportunistic behavior, leading to omitted variables issue. Therefore, I adopt the 2SLS methodology to alleviate the endogeneity concern by using the regional GDP growth rate as the instrumental variable.[10] The results are outlined in the first two columns in Table 2.7. I find that firms in financial distress are likely to engage in small positive earnings management with a significantly positive coefficient. Table 2.7 also confirms the findings in my three-way interaction analysis. Columns (3) to (6) of Table 2.7 report the results for sub-sample regressions where each sub-sample is determined by the level of political affiliation and regional development with their mean as the cutoff. Consistently, only firms with a high level of political affiliation in less developed regions are less likely to report small positive earnings as the government can facilitate the firm's access to outside financing. Thus such firms do not need to engage in earnings management.

[10] GDP growth rate is frequently used as a macro factor that predicts the corporate financial distress (Charalambakis, 2014; Tirapat and Nittayagasetwat, 1999).

Table 2.8 Robustness Tests for the Moderated Moderation Model

This table reports the subsample results of the three-way interaction analysis for the moderating effect of political affiliation and regional development on the relation between financial distress and earnings management. The size subsample is split by the median size. I also check the samples with firm debt ratio above 5% and 15%, respectively. The crisis subsample is created relative to the 2007 financial crisis (year 2007 is excluded). All remaining variables are as defined in Table 2.1. *, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.

	Small size	Large size	Debt>5%	Debt>15%	Pre-crisis	Post-crisis
	Small Positive Earnings Management (*EM*)					
Neg.Z	0.022***	0.029***	0.025***	0.027***	0.026***	0.014**
	(13.63)	(9.89)	(22.51)	(17.27)	(15.85)	(2.55)
PA	0.028***	-0.019***	0.007***	0.003	0.005*	-0.005
	(7.53)	(-4.91)	(3.08)	(0.99)	(1.79)	(-0.45)
NERI	0.002	-0.006**	-0.000	0.002	-0.005**	-0.007
	(1.05)	(-2.17)	(-0.12)	(1.07)	(-2.27)	(-1.36)
*Neg.Z*PA*	-0.008***	-0.008***	-0.008***	-0.009***	-0.008***	-0.001
	(-14.51)	(-11.41)	(-22.50)	(-19.06)	(-17.06)	(-0.71)
*Neg.Z*NERI*	-0.001***	-0.000	-0.001***	-0.001***	-0.001**	0.000
	(-2.84)	(-0.39)	(-7.13)	(-3.14)	(-2.02)	(0.57)
*PA*NERI*	-0.002***	0.002***	0.000	-0.001	-0.001	0.001
	(-2.62)	(3.34)	(0.21)	(-1.07)	(-1.20)	(0.39)
*Neg.Z*PA*NERI*	0.001***	0.001***	0.001***	0.001***	0.001***	-0.000
	(6.00)	(4.96)	(13.18)	(8.88)	(6.41)	(-0.66)
Leverage	0.015***	0.087***	0.037***	0.041***	0.034***	0.072***
	(2.96)	(13.52)	(10.34)	(8.71)	(7.51)	(6.70)
Size	0.036***	-0.013***	0.010***	0.015***	0.013***	0.006***
	(36.03)	(-11.24)	(20.09)	(24.06)	(21.59)	(4.46)
Age	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***
	(13.03)	(18.94)	(25.87)	(20.04)	(22.92)	(5.18)
PPE	-0.057***	-0.038***	-0.044***	-0.053***	-0.043***	-0.085***
	(-11.86)	(-6.19)	(-12.95)	(-12.57)	(-9.98)	(-9.57)
Loss	-0.285***	-0.377***	-0.319***	-0.327***	-0.335***	-0.244***
	(-122.78)	(-147.44)	(-204.33)	(-168.53)	(-177.01)	(-58.57)
Year	yes	yes	yes	yes	yes	yes
Industry	yes	yes	yes	yes	yes	yes
Obs.	146109	146114	370314	232667	245742	31339
F_value	266.1***	370.6***	719.9***	492.5***	651.9***	76.6***
Adj_R^2	0.144	0.202	0.162	0.171	0.176	0.105

*p<0.10, **p<0.05, ***p<0.01

Table 2.8 reports the results of robustness tests under which I continue my subsample analysis based on firm size, debt ratio and financial crisis. First, I present the results of the subsample stratification by firm size in Columns (1) and (2). Overall, the findings suggest that the joint moderating effects of political affiliation and regional development on the association between financial distress and earnings management exist for both large and small firms. Second, I also examine my hypotheses with different debt ratios used as cut off to create the regression data sample. These samples are summarized in Columns (3) and (4) of Table 2.8. The results demonstrate that the aforementioned moderating effect is immune to the debt-ratio threshold I choose to generate my empirical results.

To explore the influence of the 2007 financial crisis on my primary results, I further conduct the analysis by pre-crisis and post-crisis subsamples.[11] The result for pre-crisis subsample (Column (5) of Table 2.8) is similar to those of the full sample while that for post-crisis subsample (Column (6) of Table 2.8) is totally different, indicating that my initial results are sensitive to the financial crisis. In the post-crisis subsample, only the main regressor (financial distress) coefficient is positive, suggesting that all types of firms are likely to be involved in small positive earnings management in the aftermath of the 2007 global debt crisis. Finally, I re-run primary analysis by winsorizing variables at the 5 and 95 percentiles and find that the results are consistent with the primary analysis (not tabulated for brevity).

In summary, this chapter investigates the main effect corporate financial distress has on small positive earnings management. I find that financially-distressed firms are

[11] The 2007 global financial crisis increased the likelihood and the cost of financial distress, which may provide a stronger incentive for positive earnings management.

more likely to manipulate their reports to reflect small positive earnings than financially-healthy firms. Furthermore, corporate political affiliation is found to negatively moderate the association between financial distress and earnings management. I find that the moderating effect from political affiliation is influenced by the regional development. Specifically, the empirical results from the moderated moderation analysis indicate that regional development positively moderates the moderating effect of political affiliation on the relation between financial distress and earnings management.

2.6 Conclusion

The majority of existing studies have investigated the relation between corporate financial distress and earnings management for publicly-listed firms. However, considering the importance of privately-held firms to the economy, the research on this relation for privately-held firms is scarce. In addition, facing a restricted external financing channel, privately-held firms are more likely to engage in earnings management to prevent debt covenant violation than publicly-listed firms. Most prior studies focus on the effect of politically-connected agents (for example, CEO, Chair, President, etc.) on various economic consequences (e.g., earnings quality, firm performance, etc.). However, the effect of a politically-connected principle is relatively ignored. This chapter bridges these gaps in the literature by exploring the association between corporate financial distress and earnings management for a sample of politically-affiliated private firms in China between 1998 and 2009. The empirical analysis suggests that financially-distressed firms engage more in small positive earnings management relative to financially-healthy firms. This supports the argument that financially-distressed firms use aggressive earnings management to mitigate the potential negative

influence of financial distress. In addition, this chapter extends the literature on political affiliation and regional development by investigating the moderating effect of these two factors on the association between financial distress and earnings management. Results from a three-way moderated moderation model indicate that only firms with a high level of political affiliation and in less developed regions will not engage in small positive earnings management. Overall, this chapter advances our understanding of earnings management practices of financially-distressed private firms, and how political affiliation and regional development moderate the effect of financial distress on earnings management.

This chapter also provides three avenues to future research. First, future research may consider other moderators to enhance the understanding of the conditions under which the association between financial distress and earnings management strengthens or weakens. Examples for such moderators include corporate governance, auditing quality, institutional ownership, and analyst's characteristics. Second, rather than focusing on regional factors within a given county, future research could extend this chapter to an international context and consider country-level factors, such as legal protection, media coverage, and cultural factors. Finally, personal attributes such as education, gender, business experience, etc., may play a significant role in the earnings management decision. Conditional on data availability, future research may consider such owner attributes when investigating privately-held firms' earnings management strategies.

Chapter 3 Female Leadership in Microfinance Institutions, Gender Equality in Outreach, and Entrepreneurship

3.1 Introduction

As an important player and one of the major capital suppliers of microfinance, microfinance institutions (MFIs) provide access to credit and financial service for the poor in underdeveloped countries (Phan, 2009; Bruton et al., 2015). Aiming to reduce poverty, MFIs expect to simultaneously undertake social missions and make themselves sustainable. Much attention has been paid to MFIs' sustainability goals and repayment rates, but these do not tell us much about their influence on local poverty through entrepreneurship. Instead, these have largely detracted both borrowers' and MFIs' behavior from the original microfinance promise, which is to promote entrepreneurship and facilitate empowerment by providing initial capital (Navajas et al., 2000; Khavul, 2010). This chapter helps to fill this gap in the microfinance literature by shedding light on MFIs' social performance, which is more directly related to gender equality and entrepreneurship. More specifically, a novel topic pinpointed in this chapter is the association between female leadership in MFIs, such as females serving as managers, board members, and load officers, and services targeting women clients.

Extant studies (Brau and Woller, 2004; Khavul, 2010) indicate that women are important clients of MFIs as they are more family-oriented and are therefore the main targets of MFIs. However, potential factors that may broaden MFI outreach to female clients have not been extensively examined. While previous studies have explored female's access to financing by highlighting the gender-homophily effect (Carter and

Rosa, 1998; Harrison and Mason, 2007), furthermore, little has focused on women financing through MFIs. Rooted in the principles of homophily and risk aversion (Becker, 1973; McPherson et al., 2001; Currarini et al., 2009; Jianakopolos and Bernasek, 1998; Barber and Odean, 2001), I investigate how female leadership within MFIs influences their pools of female clients, and find that when more women serve as managers, board members, and/or loan officers, the MFIs increase their outreach to women due to gender affinity, a dimension of homophily, and risk aversion. Applying the institutional theory, I also analyze the relationship between MFI's outreach to female borrowers and entrepreneurship in this international setting, and highlight the moderating role played by legal environment in this relationship. As women suffer from gender inequality and lack opportunities in the formal labor market (Minniti et al., 2006), they may have no choice but to start new ventures to escape unemployment, even though they tend to be more risk-averse than their male counterparts. I hypothesize that when more female clients receive credits from MFIs, women become more likely to enter entrepreneurship. Quality legal environment provides multiple benefits for entrepreneurship, such as easy entry to market, improved willingness to become entrepreneurs, and a stronger legal framework (Zahra, 2014). My findings indicate that in countries with stronger legal environment, women are more inclined to enter entrepreneurship due to these benefits. In contrast, this nexus is not as obvious in countries with weak legal environment, even though it may exclude women from the labor market and force them to start new ventures.

These findings are based on a dataset acquired from the Microfinance Information Exchange (MIX). This dataset is a rich set of information about accounting and MFI

products from more than 100 developing countries. The reliability of this dataset has been demonstrated in previous studies (Khavul, 2010; Ault and Spicer, 2014; Sun and Lm, 2015). It is a unique source of information about microfinance from the MFI's perspective that enables us to provide a new view of MFI's social performance in terms of promoting entrepreneurship. The availability of MFIs' accounting information also allows us to explore how their behaviors and decisions boost entrepreneurial empowerment.

This research contributes to the literature on microfinance and entrepreneurship in multiple aspects. First, this chapter sheds light on a novel topic that is the association between female leadership in MFIs and their services targeting women clients, and provides evidence that gender affinity facilitates MFIs' outreach to their female clients. I find that this effect occurs both in the top of the hierarchy, which has decision-making and approval power, and lower down in the hierarchy, where there is frequent and close contact with clients. To the best of my knowledge, this is the first study shedding light on MFI's social performance in gender equality based on the principle of homophily. Second, results of this chapter add to the entrepreneurship literature, especially that on social entrepreneurship, by highlighting the importance of MFIs' female clients in promoting entrepreneurship, and they provide important practical implications for MFIs with respect to their strategies for improving social performance. Among the first studies applying the institutional theory to address the moderating role played by the regulatory force in the entrepreneurship and microfinance literature, third, I show that stronger legal environment in which MFIs work strengthens the relationship between MFI's outreach to female borrowers and entrepreneurial empowerment. This moderating role has critical

policy implications for both MFIs and governments in terms of entrepreneurship stimulation and poverty reduction. In summary, this chapter pinpoints the social roles of entrepreneurship by "connecting entrepreneurial activities to" entrepreneurs' "quality of life" and "human existence" (Zahra and Wright, 2016, p. 610), and echoes the call for revitalization of entrepreneurship by highlighting "institutional differences that foster entrepreneurship" (Hoskisson, Covin, Volberda, and Johnson, 2011, p. 1141), as well as that for promoting entrepreneurship from a cognitive perspective (Grégoire, Corbett, and McMullen, 2011).

The remainder of the Chapter 3 is organized as follows. Section 3.2 reviews the literature and develops hypotheses. The research methodology is discussed in Section 3.3, followed by Section 3.4 in which the empirical results are reported. Section 3.5 concludes the paper and discusses future research directions.

3.2 Literature Review and Hypothesis Development

Due to their risk perspective, traditional banks primarily provide financial services for borrowers who have either collateral or credit history (Berger and Udell, 1990, 1995). The poor who need money the most but lack proof of their ability to repay usually cannot access the credit. So the poor stay poor and are trapped in a poverty cycle. To alleviate the restricted access of the poor to credit and solve the poverty issue in underdeveloped countries, microfinance was introduced in 1970s when pioneer organizations such as the Grameen Bank of Bangladesh started to shape modern microfinancing. Most MFIs are either non-governmental organizations (NGOs) that are financially supported by subsidies and bank loans, non-bank financial institutions primarily financed by shareholders, or traditional banks. Cull et al. (2007, 2009) found that a sample of 346

MFIs consisted of 45% NGOs, 30% non-bank financial institutions and 10% traditional banks. Through their high repayment rates and by charging market interest rates or higher, MFIs have experienced unprecedented growth, and microfinance has attracted increasing research attention.

3.2.1 MFI Performance and Gender Effects in the Microfinance Literature

MFIs are an indispensable part of microfinance, and they provide microcredit and financial services for local people for self-empowerment. What differentiates MFIs from other forms of financial institutions is their social objective of poverty reduction. If MFIs intend to continue serving their clients, they also need to seek sufficient financial returns to maintain sustainability. Balancing these two goals is critical to the survival and success of MFIs. MFIs have various organization forms, and their distinctive capital structures may generate governance implications and affect performance (Phan, 2009). MFIs that rely on subsidies may mask their true financial returns and be more engaged in programs for their social goals. The better their social missions are fulfilled, the more likely MFIs such as Grameen Bank are to receive future subsidies (Morduch, 1999). A greater dependence on subsidies also indicates an emphasis on implementing government policies and better social performance. Financial goals are more crucial for non-banking financial institutions that mainly rely on equity. As for non-financial objectives, Phan (2009) showed that MFIs relying more on funds from private sources tended to focus on sustainability, and Kyereboah-Coleman (2007) reported that higher leverage motivated MFI's outreach.

Group lending is designed to self-govern and self-monitor using access to future credit and peer pressure as collateral. However, the 2010 microcredit crisis in India,

originating from microfinance-induced suicides, signifies the weak corporate governance and overconfident risk taking in MFIs (Galema et al., 2012). MFIs are also focusing on corporate governance and risk management in response to the increase in individual lending. Galema et al. (2012) found that more powerful CEOs of MFIs had more freedom in decision-making but were associated with lower performance. As reviewed by Labie and Mersland (2011), however, the governance issues in MFIs are underdeveloped. Relying on group lending to alleviate the agency concerns such as moral hazard and adverse selection, MFIs obtain higher repayment rates than traditional banks; this ensures that borrowers have access to future credit and avoid the loss of social support (Phan, 2009).

However, the pursuit of a good repayment ratio by MFIs implicitly influences borrowers' investing behavior. For instance, borrowers may be afraid of repayment constraints and may be discouraged from starting a business by many obstacles, including liability of newness which indicates high level of default risk (Thornhill and Amit, 2003). Field et al. (2013) pointed out that early repayment discouraged risky investment and as a result, limited the potential effect on microenterprises. Therefore, a significant portion of microloans are used for consumption rather than for investment in enterprises (Beck and Ogden, 2007). Therefore, MFIs' sole focus on their repayment rates may endanger their poverty alleviation goals. Furthermore, group lending is inconvenient for borrowers because the loan size and terms cannot be ideal for every borrower in a group. Baland et al. (2013) examined the relationship between wealth and group lending benefit and found that the demand for loan relied on borrower's wealth where the poor would require larger loans in their model. Individual loans are a recent, widespread trend. They allow more

flexibility in borrowing terms, which reduces the loss of valued clients to the competition and attracts new clients (Dellien et al., 2005). The increasing use of individual loans is expanding the microfinance industry, but their risk management is alarming MFIs.

Due to their dual objectives, MFI's performance evaluation is a contentious, unsettled question. Unlike for-profit organizations that pursue value maximization, MFIs are established and operated with the social mission of alleviating poverty in underdeveloped countries. However, they still need sufficient financial profits to cover their administrative costs. Financial returns serve as a key indicator of the services delivered to customers (Schreiner, 2002). Thus, both financial performance and social performance are usually measured. Financial performance emphasizes sustainability rather than profit maximization and is mainly measured by repayment rates (Khavul, 2010; Moss et al., 2015). However, this measure is flawed as borrowers can apply for new loans to repay their existing loans, leading to a superficially high recorded repayment rate (Khavul, 2010). Other measures of financial sustainability are the size of loan portfolio and the spread between market and program interest rates (Phan, 2009).

Many MFIs primarily target female borrowers. According to their online reports, for instance, 97% of the clients of Grameen Bank in 2010 were women. Women in poor regions use loans more efficiently than men (Pitt and Khandker, 1988) because women are family-oriented and more likely to invest in projects with higher productivity (Brau and Woller, 2004). However, women are less able to bear the cost of defaulting on a loan, and therefore are more risk-averse in investments. Female borrowers suffer more from peer pressure in group lending (Khavul, 2010), and female entrepreneurs are likely to be constrained by contracts with intermediaries (Al-Dajani, Carter, Shaw, and Marlow,

2015). However, they are more likely to follow policies and procedures (Cheston and Kuhn, 2002; Chakrabarty and Bass, 2014a). Female borrowers therefore obtain educational opportunities, self-reliance, and social voice through their loans (Sanyal, 2009). MFIs thus tend to have better financial and social performance by lending to women. As indicated by Rahman (1999), MFIs' preferences and easy access to credit also affect female borrowers' behavior; for instance, in a village in Bangladesh, most women borrow for their husbands.

As MFIs mainly target female borrowers, they tend to incorporate specific strategies for facilitating their financial services to women. For instance, they may hire more female officers as they obtain more female clients because in certain countries, close contact between women and men is not supported for religious and/or cultural reasons. Galak et al. (2011) found that in Kiva, lending officers preferred to give loans to those who were more like themselves in aspects such as gender. However, Agier and Szafarz (2013) investigated gender effects on microfinance using information from a Brazilian MFI and found that loan size was not affected by a loan officer's gender. Similarly, having more women on an MFI's board of directors may also promote programs and activities that are beneficial for female empowerment and may result in better social performance, especially that associated with women. Taking higher levels of positions in MFIs such as CEOs or board directors, women may also play an important role in servicing the female clients since they may better understand the needs of their female clients (Mersland and Strom, 2009).

3.2.2 Hypotheses Development

The dual objectives of MFIs make it difficult to evaluate their success (Khavul, 2010). On the one hand, MFIs need to realize sufficient profit to cover their administrative expenses to survive. On the other hand, MFIs especially for non-for-profit organizations are expected to launch programs that benefit the local economic conditions to meet their social objectives, although these programs may not be profitable and cause financial problems in the short run (Khavul, 2010). The healthy way for MFIs to operate is to first ensure their sustainability, and then fulfill their social objectives (Phan, 2009).

MFIs rely on two main sources of capital to maintain sustainability, repayment by borrowers and global subsidies or donations. However, these two sources of income make it difficult to judge the real financial performance of an MFI. The repayment rate, which is often used to measure financial performance, is not accurate because borrowers may apply for new loans to repay their original debt (Khavul, 2010). In the meantime, subsidies and donations are more associated with size and reputation of an MFI, but not its operations, and therefore tend to mask its true financial performance (Hudon, 2010). Thus, scholars are increasingly turning their attention to MFI's social performance. The proposed proxies for social performance are not identical, but all connect to the factors that can stimulate local education, gender equality, employment and economic development (Schreiner, 2002; Phan, 2009; Randøy et al*.,* 2015). In this chapter, I follow the advice in Phan (2009) and focus on two dimensions of social performance, a) breadth of outreach to female borrowers which measures MFI's effort devoted into gender equality, and b) local economic development gauged by MFI's performance in promoting entrepreneurship.

Gender discrimination has been well recognized in small business lending (Fay and Williams, 1993; Bellucci et al., 2010), and as part of their social objectives, MFIs tend to target women borrowers in order to reach gender equality. This strategy is well supported by female borrowers' characteristics summarized by previous studies. For instance, women are perceived to be more family-oriented, and tend to invest in activities that benefit family welfare, household health, and their children's education (Brau and Woller, 2004). Also, female borrowers used their funds more efficiently than male (Pitt and Khandker, 2004). As a result, lending to female borrowers lowers the default risk MFIs are exposed to. Furthermore, female borrowers tend to employ proportionately more women, and doing so reduces the barriers for women to enter the formal labor market in underdeveloped countries (Minniti and Naude, 2010). In the long run, lending to female borrowers also helps MFIs to reach their social goals such as promoting entrepreneurship, which can generate employment opportunities and promote local economic development.

3.2.2.1 Female Leadership in MFI and Social Performance

While MFIs benefit from lending capital to more female borrowers, less effort has been made to examine the people within MFIs, especially the effect of their female employees who may help serve women better and improve their outreach to potential female borrowers. In the microfinance literature, the gender impact is mainly based on female loan officers while the influence of gender diversity at the top of the decision-making hierarchy such as board of directors and top management team, especially their impacts on the outreach to female clients, is less examined.

The issues around women on the top management team and board of directors are less examined in the literature, particular for the topics related to MFIs' social performance. Mersland and Strom (2009) found that female CEOs could facilitate MFIs outreach to women clients, and Hartarska (2005) reported that more women on the board of directors of an MFI improved its outreach. The explanations for these results are often illustrated by female CEOs or board directors' ability to receive information from their female clients and better understand the needs of the female customers. However, other factors associated with impacts of female CEO and female board directors on MFIs' outreach to women have been underexplored in this stream of literature.

First, gender affinity, a dimension of homophily, may play an important role in female CEOs or board directors' behaviors towards their female clients such as the programs and products that are exclusively beneficial to women clients. Homophily theory plays a critical role in initiating the communication and connection among individuals in society (Lazarsfeld and Merton, 1954). People tend to interact with those who share some similarities or common attributes such as race, sex and value which in turn make the contact easily. Previous studies have been conducted in exploring the impact of homophily on personal social networks (see a review in McPherson et al. (2001)) and find that the influences are prominent over variant types of relationship including marriage (Kalmijn, 1998), friendship (Verbrugge, 1977, 1983) and "knowing about someone" (Hampton and Wellman, 2001: 204). Based on the common personal attributes, people care more towards those in their own group (Flippen et al., 1996). In this chapter, I focus on gender, one dimension of similarity. Marsden (1987) found that people tended to consult their sex homogenous confidants in terms of important affair by

controlling kinship. Thus, women clients to MFIs are easy to start the conversation with female loan officer and look for their suggestions. Meanwhile, it is easier for female loan officers in MFI to advise and help their women clients as they might know the very nature of hardship women clients encounter across communities and use the supporting language based on feminine value and norm.

Second, the popularity of MFIs such as Grameen Bank are largely rooted in the mechanism through which MFIs alleviate the adverse selection and moral hazard issues that traditional banks use to shut the door to the poor (Khavul et al., 2009; Chakravarty and Shahriar, 2015). In general, Grameen Bank and other MFIs normally provide loans to a group of people and warn that if one person in the group defaults, the whole group is forbidden access to future credit. People are clustered in community groups and monitor each other to ensure that everyone in their group fulfills their repayment commitments. Future access to credit and peer pressure encourages them to repay their loans. As women tend to be more risk-averse (Jianakopolos and Bernasek, 1998; Barber and Odean, 2001), those female CEOs and board directors are more likely to design and approve the programs or lending to women clients because female borrowers are found to suffer more peer pressure and have less default (Khavul, 2010).

Third, social performance is usually measured through MFI's outreach, which characterizes its social benefits generated for poor clients. Schreiner (2002) illustrates six aspects of outreach, of which breadth can easily be tracked and measured (Randøy, Strøm, and Mersland, 2015). A broader outreach attracts more clients. Its underlying logic is that the more poor people who obtain microloans, the more people enjoy the benefits of microfinancing and the more people escape poverty. As the recorded number

of clients may be too rough to show the success of MFIs, improved outreach to specific groups of people is often valued for promoting microfinance. Thus, women at the top of the decision-making hierarchy, such as top management and board members, may facilitate outreach to female borrowers by increasing the perceptions of MFIs trustworthiness since women are more likely to be trusted psychologically (Perrault, 2015; Terjesen et al., 2009). Delivering good image to potential borrowers and obtaining their trust are initial and indispensable steps before women are willing to borrow.

Therefore, I propose the following hypotheses:

HYPOTHESIS 3.1a: *MFIs with higher levels of female leadership on their boards of directors tend to have outreach to more female clients.*

HYPOTHESIS 3.1b: *MFIs with higher levels of female leadership in their management team tend to have outreach to more female clients.*

Loan officers bridge the connections between borrowers and MFIs. On one hand, they allure the information and needs from potential clients and give the report to their leaders in MFIs who can design the program meeting the borrower's requirements; On the other hand, they relay the information of MFIs and lend money to their clients. Moreover, they are also responsible for post-transaction interactions such as providing suggestions and instructions to their clients.

Undoubtfully, female loan officers have advantages over their male counterparts in serving female clients when MFIs mainly target women borrowers. First, the culture barrier might prohibit the direct contact between male and female especially in some Arabic countries, while female loan officers could facilitate frequent meetings with their female clients. Second, female loan officers know the very nature of hardship and

marginalization they encountered across communities, and therefore they know how to draw attention from potential female borrowers and make the female-to-female contact and communication more efficient and productive. Last, rooted in the principle of homophily which describes the tendency of interactions among individuals with similar characteristics (Becker, 1973; McPherson, et al., 2001; Currarini, et al., 2009), female loan officers may be inclined to lending capital to women clients and female borrowers, who tend to have more trust to work with female loan officials on a face-to-face basis. For instance, Galak et al. (2011) found that Kiva lenders preferred to give loans to those who were more like themselves in aspects such as gender.

Therefore, Female loan officers lower down in the hierarchy may also be more inclined toward female borrowers due to the affinity effect and contact convenience. In light of the above discussion, I propose the following hypothesis:

> **HYPOTHESIS 3.1c**: *MFIs with more female loan officers tend to have outreach to more female clients.*

3.2.2.2 Outreach to Female Clients and Entrepreneurship

The number of rural clients with microfinancing (Randøy et al., 2015) and the number of loans for female empowerment (Khavul, 2010) are often used as indicative measures of MFI's social performance. The primary purpose of microfinance is promoting entrepreneurship by providing initial capital (Navajas et al., 2000), thus boosting local employment and economic development, and ultimately reducing poverty. However, the social effects of microloans provided for entrepreneurs to start new businesses and those of microloans obtained by microenterprises for development have

not been fully explored. These more direct measures of MFIs' social performance can indicate their success in fulfilling their social commission.

As a broader social performance of MFI, promoting entrepreneurship is also closely related to its outreach to female borrowers. On one hand, lending to entrepreneurs is a highly risky decision, especially in developing countries where borrowers have minimal collateral or credit record. On the other hand, borrowing money for entrepreneurship is also a risky decision for a borrower, as liability of newness leads to an extremely high default risk in the seed/starting stage of new ventures. That failure may put the entrepreneur's family, rather than the entrepreneur him/herself only, into hardship from which it is hard to recover. Female borrowers, who have been shown to be more family-oriented, may thus be discouraged from entrepreneurship. Previous studies (Jianakopolos and Bernasek, 1998; Barber and Odean, 2001) have also shown that females are typically more risk-averse than their male counterparts toward financial investments. In spite of the high risk embodied in entrepreneurship, women have been found to be more susceptible to group peer pressure to repay loans (Khavul, 2010). Facing the potential high risk and community pressure, female borrowers seem to avoid entrepreneurship. According to 2012 GEM women's report (Kelly et al., 2013), only seven out of 67 economies reported equal or slightly higher levels of female entrepreneurial activities, indicating that women's involvement in entrepreneurial activities tends to be lower than men's. As Marlow and Patton (2005) and Chua et al. (2011) indicated, however, availability of and access to financing are critical to the entrepreneurship, especially for the start-ups. The lack of initial capital is definitely the barrier and impediments for women to get engaged in entrepreneurial activities. By

lending money to women, MFIs at least provide female borrowers with the financing, taking a large step in helping female entrepreneurs.

Although in developing countries entrepreneurship may not be a female borrower's first choice, it is, however, sometimes her only option. Minniti et al. (2006) found that female entrepreneurship was more common in developing countries in which MFIs have their businesses. Women in these countries have limited or no access to labor market, and are forced to start a business for self-employment and escaping poverty. The barriers to the formal labor market leave these women with no choice other than entrepreneurship if they wish to escape unemployment. Women are also perceived to be more family-oriented, and therefore, they are more likely to choose something with discretion and freedom in their working hours in order to spare time and effort for family welfare. In other words, women may choose to be entrepreneurs to gain the flexibility to balance work and family. As mentioned earlier, moreover, women are more likely to invest in activities that benefit their family welfare, household health, and their children's education, whereas men are more likely to use their capital for consumption (Brau and Woller, 2004). To cover the essential capital for family welfare activities, income generation may also stimulate female entrepreneurship when other access to income is limited.

As a result, while entrepreneurship is a risky decision and women are more risk-averse than men, women's risk aversion in under-developed countries may steer them away from the formal labor market, considering the limited job opportunities and barriers to entry. Instead, female borrowers who are under repayment pressure may be steered toward entrepreneurship in high-risk industries, using aggressive strategies for enterprise

expansion (Field et al., 2013). Echoing this, Khavul et al. (2009) showed that female entrepreneurs in East Africa are less likely to give up the entrepreneurial efforts they have already made. I therefore propose my second hypothesis:

> **HYPOTHESIS 3.2:** *MFIs with outreach to more female clients are more likely to encourage entrepreneurship.*

3.2.2.3 Moderating Role Played by Legal Environment in An Institutional-theory Framework

Extant research has claimed that entrepreneurship is a key element for local employment and economic growth (Minniti and Levesque, 2008; Cumming and Li, 2013). Thus, academic scholars are increasingly interested in the potential factors that encourage entrepreneurship. These factors are not only linked to entrepreneurs themselves, such as their education, networking and work experience, but also associated with the broader environment, such as the government policies, taxation and law frameworks that facilitate entrepreneurship (Cumming and Li, 2013; Chen, Hou, Li, Wilson, and Wu, 2014). Legal environment is a dimension of environment that has received more and more attention recently. Friedman (2011) illustrated the importance of legal environment on entrepreneurs' perception of risks and burdens from the outside environment. If the government runs efficiently within a strong framework of law and contract enforcement, entrepreneurs are more willing to start business ventures. Zahra (2014) also addressed this issue by examining the role of legal environment on young global entrepreneurship, and emphasized that legal environment was not an independent mechanism; rather, it should work with corporate governance to exert a positive influence on entrepreneurship. In addition, Zahra (2014) put forward several other potential benefits of legal

environment to entrepreneurship. For example, strong legal environment may lead to easy market entry, whereas poor legal environment may bring a conservative attitude that hinders innovation and entrepreneurship. For another example, a strong legal framework, especially for property right protection and contracts enforcement, may encourage people to undertake risky investments and weaken the worry that their business may be nationalized. Chakrabarty and Bass (2014b), from the perspective of MFIs, echoed the views in Zahra (2014) and claimed that the corresponding obstacles, such as property rights and contract concerns, were big issues in developing countries. Strong legal environment effectively mitigates the above problems and obviously promotes local entrepreneurship.

In the early studies associated with entrepreneurship, trait theory is important in explaining the influence of personal attributes on entrepreneurial success (see Decarlo and Lyons, 1979). However, the heterogeneous perception of social value towards entrepreneurial activities (Kelly et al., 2013) among different regions alert scholars that institutional environment exerts much more impact on individuals' incentives for entrepreneurship and their ability to survive. Thus, the application of institutional theory becomes prevalent theoretical foundation in exploring the entrepreneurial issues, especially those in international settings (Bruton et al., 2005; Bruton et al., 2010). Yet, less work has been done to specify how female entrepreneurs, especially in microfinance, are affected by the institutional environment and little empirical evidence supports their propositions in emerging economies (Manolova et al., 2008). In this chapter, I fill this gap by examining the effects of institutional environment on female entrepreneurship in a microfinance world and providing empirical evidence for my arguments.

Institutional theory emphasizes the institutional forces such as regulatory, social and cultural impact on facilitating organizational legitimacy and survival (Roy, 1997; Bruton et al., 2010). Scott (2007) summarized and grouped these forces into regulatory, normative, and cognitive categories. Regulatory forces are the coercive rules and policies to which individual or organization is legally obliged to conform (Scott, 2007; Manolova et al., 2008). Normative forces are less formal and usually refer to social norms and commercial conventions that participants are expected to follow (Scott, 2007; Manolova et al., 2008). The last pillar cognitive forces are more associated with the culture system (Scott, 2007; Manolova et al., 2008; Bruton et al., 2010). They are typically the values and norms rooted in local culture and developed through social interaction over time in the institution (Manolova et al., 2008). These three forces do not merely function respectively, but rather interact with each other and jointly impact the members in an institutional environment (Laffan, 2001). In Chapter 3, I specifically discuss how female entrepreneurship is influenced by the regulatory dimension of the institutional theory.

The regulatory system consists of laws, government policies and regulation that might directly affect entrepreneurial behaviors. Effective regulatory system reduces the potential risk for entrepreneurs and also creates easy market entry (Zahra, 2014). In a powerful legal environment, entrepreneurs have less worry that their business may be nationalized (Friedman, 2011), and this is much more important for female entrepreneurs as they are more risk averse while making financial decisions (Jianakopolos and Bernasek, 1998; Barber and Odean, 2001). While in an environment with weak property rights protection, entrepreneurs are restricted to rely on informal network, on which however males have comparable advantages (Aidis et al., 2008; Estrin and Mickiewicz,

2009). In addition, Jütting et al. (2006) found that a discriminant regulation makes direct restrictions on female property rights and civil liberties. Facing such obstacles in a legal environment, female are discouraged to create ventures due to their perception of high risk. Djankov et al. (2002) compared the costs and difficulty levels in starting a business across countries and find that it takes more time and costs in under-developed regions. These difficulties and time-consuming processes exert more pressure on females to deal with legal issue of their new ventures, as they are usually responsible for household chores and childcare. Furthermore, female entrepreneurs are found to be less able to tackle government officials' corruptions (Amine and Staub, 2009).

Government policy also plays a critical role in facilitating female entrepreneurship, and effective policies aiming at promoting local employment rate and economic growth may facilitate female entrepreneurs to start business by providing easy access to financial capital and favorable taxation. Government can also be crucial to financial institution through setting interest rates (Hubka and Zaidi, 2005) and its impacts on NGOs may be relatively large. Their endeavor in helping female entrepreneurs and promoting gender equality may be stimulated by corresponding policies, as NGOs are not usually financial independent. MFIs mainly take the organization form as NGOs (Cull et al., 2007, 2009) and spend more efforts in fulfilling its social commitment when they are financially healthy, since MFIs are expected to promote entrepreneurship and alleviate local poverty by providing initial capital (Navajas et al., 2000; Khavul, 2010). Financial capital is crucial to the creation of new ventures (Marlow and Patton, 2005). While female clients of MFIs may overcome the difficulties in obtaining the financial capital, their attitudes towards entrepreneurship are significantly influenced by the regulatory

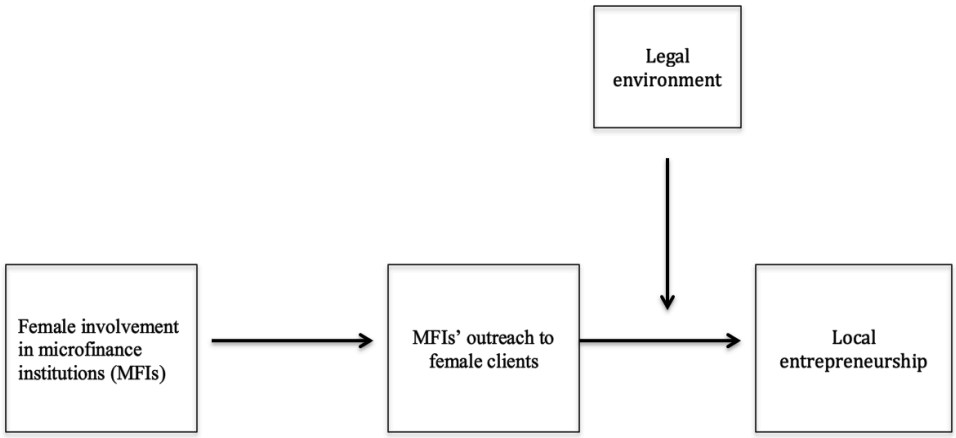
dimension of institutional environment. More specifically, the institutions with strong regulatory forces could bring many benefits to facilitate female entrepreneurship, but may also reduce women's desire for start-ups.

Therefore, I present my third hypothesis as the following:

HYPOTHESIS 3.3: *Regulatory institutions represented by legal environment positively moderate the relationship between MFI's outreach to female clients and entrepreneurship such that stronger regulatory institutions strengthen the relationship.*

However, it is worth pointing out that, if government can initiate favorable policies especially associated with gender equality in the labor market, it may reduce the barriers for women to the formal labor market (Ibrahim, 1989). As a result, with less pressure on unemployment, women may have less incentive to start entrepreneurship (Tervo, 2006; Minniti and Levesque, 2008). In other words, weak legal environment may motivate female entrepreneurship due to the larger obstacles that women face in the formal labor market. Legal environment is therefore very likely to moderate the relationship between female clients and entrepreneurship, but the moderation pattern could be various. If weak legal environment generates more incentives for women to be entrepreneurs, the relationship between female clients and entrepreneurship may be more positive in countries with weak legal environment. If the benefits from strong legal environment encourage more female entrepreneurship, the relationship between female clients and entrepreneurship may be more positive for female clients in countries with stronger legal environment. To sum up, our conceptual model with the hypotheses can be incorporated in figure 3.1.

Figure 3.1 Conceptual Model



3.3 Methodology

3.3.1 Sample

My MFIs data are extracted from the Microfinance Information Exchange (MIX), which has been recently used in the existing MFI literature (Khavul, 2010; Ault and Spicer, 2014). The MIX not only provides basic accounting information on worldwide MFIs, such as total assets, loan portfolio and investment, but also summarizes the services and products to their clients in terms of their group and product types. Specifically, this database identifies the composition of the customer based on gender, age and location, and records the number of people who use the loan for entrepreneurial activities, which are our primary focuses in the analysis. The full data sample is heavily unbalanced and consists of 2,609 MFIs from 118 developing countries from 1995 to 2013. For the sake of comparison, all of the values are evaluated in US dollars by adjusting the local inflation influence. To explore the influence of legal dimension of institutional environment, I match legal environment data taken from the World Governance Indicators with the MIX

dataset. World Governance Indicators extracts the information from over 30 existing data sources related to country-level governance quality and report its assessment on six broad dimensions of governance for over 200 countries. The six dimensions[12] address the government selection, monitoring and effectiveness, and the institutions that regulate economic and social interaction. To grasp the development of country-level legal environment, I adopt the level of rule of law, one of the six dimensions, as the proxy. Further, I also obtain the gross national income per capita in the sample period from the World Bank in order to gauge economic development of various countries.

3.3.2. Variables

Table 3. 1 Variable Definition

Variable name	Variable Definition
F_borrower	Total number of female borrowers scaled by total number of active borrowers
Entr	Natural logarithm of the number of borrowers for entrepreneurship
F_board	Total number of female board members scaled by total board members
F_manager	Total number of female managers scaled by total number of managers
F_officer	Total number of female loan officers scaled by total number of loan officers
size	Natural logarithm of the number of total employees
leverage	Total debt scaled by total equity
ROA_lag	Total net profit scaled by total assets in the previous year.
writeoff_lag	Total amount of loans loss scaled by total loan portfolio in the previous year
GNI_lag	Gross national income per capita in the previous year
F_employee	Total number of female employees scaled by total number of employees
legalenv	Rule of Law which records the condition of local legal environment from the World Governance Index published by the World Bank

Dependent variables: Following the hypothesis development, the dependent variables center on MFI social performance measured by the number of female clients scaled by the total number of borrowers for testing Hypotheses 3.1a-c, and the number of clients

[12] Six dimensions refer to Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. More details can be found at http://info.worldbank.org/governance/wgi/#doc.

who use their credits for entrepreneurship for testing Hypotheses 3.2 and 3.3. The first measure captures the breadth of outreach to female borrowers and records the MFIs' efforts for gender inequality alleviation by providing women with financing materials and associated suggestions and instructions. The second proxy is more directly related to local employment and economic development. Similar measures have been adopted by Navajas et al. (2000) Schreiner (2002), and Randøy et al. (2015), and therefore their validity has been proved.

Female outreach (F_borrower): Breadth of outreach is gauged by the number of clients (Randøy et al., 2015), and indicates the range of people who benefit from microfinance under budget constraints (Schreiner, 2002). Women play an efficient role in escaping poverty, especially for families. This variable is also used as an independent variable to test the relationship between female clients and entrepreneurship. I construct this variable by recording the ratio of the number of female borrowers to that of total borrowers in order to alleviate potential concerns about scaling effects attributing to the increase in the number of total borrowers.

Promoting entrepreneurship (Entr): One mandate of microfinance is to promote the entrepreneurial process by providing initial capital (Navajas, et al., 2000), thus to boost local employment and economic development, and ultimately to reduce poverty. However, the real utilization of the capital may deviate from MFIs' expectations (Beck and Ogden, 2007). By adopting this variable, I fill a gap in this stream of literature, as few scholars measure MFI social performance in terms of promoting entrepreneurship. This proxy is converted to logarithm values for normality issue.

Independent variables: As I am interested in the female leadership effect on MFI social performance, I test whether women facilitate MFI outreach to female clients by serving as board members (*F_board*), managers (*F_manager*), and loan officers (*F_officer*) in MFIs. To test Hypotheses 3.1a-c, these three measures are constructed by computing the numbers of female board members, female managers, and female loan officers scaled by the numbers of total number of board members, total number of managers, and total number of loan officers, respectively. Meanwhile, the variable *F_borrower* is also treated as an independent variable to test Hypotheses 3.2 and 3.3.

Control variables Borrowers' investment choices are connected with MFIs' characteristics that facilitate the borrowers' decisions and borrowers' characteristics. By having the limited information from the dataset, I use five control variables for MFIs, four about MFIs and one about country-level heterogeneity.

As this chapter addresses about MFI's social performance, I use the natural logarithm of the total number of employees to measure its size (*size*). This assessment weighs the scale of the MFIs' services to their clients rather than the credit offered (Agier and Szafarz, 2013). Leverage is a key factor that causes MFIs to rebalance their emphasis on financial goals and social missions (Garmaise and Natividad, 2013, 2014). I use the debt-to-equity ratio to assess MFI leverage *(leverage)*. Return on assets (ROA) characterizes the antecede profitability of an MFI. If return is sufficiently high for sustainability, MFI may switch its focus to the social dimension and be more averse to clients' risky investments. In this stream of the literature, ROA is frequently used to measure MFI financial performance (Galema et al., 2012; Randøy et al., 2014. To avoid potential endogeneity concerns, I record the return on assets in the previous year by

lagging ROA (*ROA_lag*). The repayment rate is directly related to MFI profitability and ultimately influences MFIs' behavior toward their clients' risky investments, and has been perceived as the golden standard of MFI's financial performance (Khavul, 2010). MFIs mainly target women as they have higher repayment ratios (Rahman, 1999; Khavul, 2010), and as a result, credit to women may lower the loan-loss rate and a higher loan-loss rate may drive MFI lending to women. Thus, the effect of repayment rate on MFI decisions and borrower behavior is considerable (Phan, 2009; Khavul, 2010; Ault and Spicer, 2014), and I create a lagged variable (*writeoff_lag*) to capture the potential effect of loan loss rate in the past year. In addition, Gross national income (GNI) per capita controls for the differences in economic development between countries. I construct a lagged variable (*GNI_lag*) to control the impacts of macro-economic condition on microfinance and entrepreneurial activities.

Moderator: legal environment (legalenv) Following previous studies (e.g. Chen et al., 2015), I measure a country's legal environment using Rule of Law which records the condition of local legal environment from the World Governance Index published by the World Bank. Its values range from -2.5 to +2.5 with higher values indicating better legal environment.

3.3.3 Methodology

Based on my hypotheses, I first investigate the relationship between outreach to female clients and characteristics of MFIs associated with gender involvement. I then examine the gender effect on entrepreneurship.

To test Hypotheses 3.1a-c, I use the following multiple regressions:

$$F\_borrower = \beta_0 + \beta_1 Female\ Leadership + \beta_2 Control + \varepsilon_1, \qquad (1)$$

where female leadership is measured by F_board, F_manager, and F_officer. The control variables include size of MFI, leverage of MFI, lagged return on asset, lagged write-off ratio, and lagged gross national income per capita. I employ ordinary least square (OLS) method with clustering errors by controlling year and country fixed effects. As illustrated by Petersen (2009), in a sample of panel data, clustered standard errors take care of firm effect and therefore are unbiased. As robustness tests, the generalized method of moments (GMM) is also adopted. According to Hypotheses 3.1a-1c, the coefficients on female leadership variables, *F_board*, *F-manager*, and *F_officer*, are expected to be positive.

To test Hypotheses 3.2 and 3.3, I perform an empirical analysis using the following model:

$$Entr = \beta_0 + \beta_1 F\_borrower + \beta_2 legalenv + \beta_3 legalenv * F\_borrower + \beta_4 Control + \varepsilon_2. \qquad (3.2)$$

where control variables are the same as those for Equation (3.1). Regulatory force of institutional environment characterized by country-level legal environment may moderate the relationship between female outreach and MFI's promoting entrepreneurship, and therefore I add the interaction term to Equation (3.2). To alleviate concerns about potential unspecified heterogeneity, I employ a fixed effect model.

As discussed earlier, better legal environment may lead to easy market entry (Zahra, 2014). As a result, a powerful legal framework, especially for property right protection and contracts enforcement, may encourage risky investments and weaken concerns that businesses will be nationalized (Friedman, 2011). However, if favorable legal policies can provide women with better access to the formal labor market, the

incentives for women to start business ventures may be weakened. In other words, poor legal environment may motivate female entrepreneurship. Therefore, a powerful legal environment can both positively and negatively influence the relationship between the outreach to female clients and entrepreneurial activities. On one hand, it decreases women's perception of risk towards entrepreneurship; On the other hand, it alleviates the female unemployment concerns and reduces the incentives for entrepreneurship. Therefore, the moderating effect of legal environment might be non-linear. To capture this non-monotonic impact, I introduce the square term of legalenv in the model below:

$$Entr = \beta_0 + \beta_1 F\_borrower + \beta_2 legalenv + \beta_3 legalenv * F\_borrower + \beta_4 legalenv^2 + \beta_5 legalenv^2 * F\_borrower + \beta_6 Control + \varepsilon_3 . \quad (3.3)$$

3.4 Empirical Results and Discussion

I separately discuss the descriptive statistics and correlation matrixes for the two regression samples related to the relationship between female involvement and outreach to female clients, and that between outreach to female clients and entrepreneurial activities, since there are limited overlapping observations available for the two research questions.

3.4.1 Descriptive Statistics and Correlations

Table 3. 2 Descriptive Statistics for female involvement and female clients

	N	Mean	S.D.	25th	75th
F_borrower	882	0.628	0.252	0.438	0.862
F_board	882	0.301	0.249	0.133	0.429
F_manager	882	0.338	0.296	0.067	0.5
F_officer	882	0.369	0.282	0.133	0.546
size	882	4.908	1.552	3.807	5.911
leverage	882	4.546	7.477	1.44	5.63
ROAlag	882	-0.01	0.115	-0.022	0.028
writeofflag	882	0.032	0.046	0.006	0.041
GNIlag	882	3406.176	2617.09	1220	4649.91
F_employee	882	0.452	0.203	0.324	0.581

Table 3. 3 Descriptive Statistics for female clients and entrepreneurship

	N	Mean	S.D.	25th	75th
Entr	752	9.436	1.805	8.086	10.624
F_borrower	752	0.636	0.258	0.442	0.868
size	752	4.924	1.483	3.807	5.807
leverage	752	6.588	37.567	1.59	5.835
ROAlag	752	-0.006	0.097	-0.02	0.033
writeofflag	752	0.024	0.044	0.003	0.028
GNIlag	752	2656.64	2201.905	1000	3790
legalenv	752	-0.675	0.485	-1.07	-0.37

Table 3.2 reports the descriptive statistics of all the variables related to Hypothesis 3.1. There are 882 observations for the first regression sample that explores the impact of female involvement in MFIs on its' outreach to female clients. On average, 62.8% of the clients, 30.1 % of the board members, 33.8% of the managers, and 36.9% of the loan officers of a MFI are female. Table 3.3 presents the descriptive statistics of all the variables related to Hypotheses 3.2 and 3.3. The second regression sample size is reduced to 752, but the there is little difference for those variables such as F_borrower, size and leverage in both two samples. In addition, an average MFI provides services for more than 12,500 microenterprises.

Table 3. 4 Correlations for female involvement and outreach to female clients

	F_borrower	F_board	F_manager	F_officer	size
F_borrower	1				
F_board	0.105***	1			
F_manager	-0.021	0.281***	1		
F_officer	0.138***	0.240***	0.375***	1	
size	0.243***	-0.100***	-0.215***	-0.098***	1
leverage	0.061*	0.001	-0.009	-0.019***	0.219
ROAlag	-0.059*	0.027	-0.025	-0.087***	0.110**
writeofflag	-0.07**	0.045	0.033	0.067**	-0.031
GNIlag	-0.237***	-0.011	0.294***	0.285***	-0.269***
F_employee	-0.076**	0.250***	0.564***	0.745***	-0.285***
	leverage	ROAlag	writeofflag	GNIlag	F_employee
leverage	1				
ROAlag	-0.072**	1			
writeofflag	-0.017	-0.199***	1		
GNIlag	-0.070**	-0.093***	0.033	1	
F_employee	-0.073**	-0.104***	0.097***	0.443***	1

*p<0.10, **p<0.05, ***p<0.01

Table 3. 5 Correlations for outreach to female clients and entrepreneurship

	Entr	F_borrower	size	leverage
Entr	1			
F_borrower	0.353***	1		
size	0.863***	0.142***	1	
leverage	0.027	-0.069*	0.046	1
ROAlag	0.104***	0.011	0.079**	-0.017
writeofflag	-0.123***	-0.041	-0.081**	-0.003
GNIlag	-0.309***	-0.161***	-0.287***	-0.062*
Gov5	0.180***	0.131***	0.117***	0.018
	ROAlag	writeofflag	GNIlag	legalenv
ROAlag	1			
writeofflag	-0.432***	1		
GNIlag	-0.035	0.088**	1	
legalenv	-0.037	0.028	0.167***	1

*p<0.10, **p<0.05, ***p<0.01

The correlation matrixes are also presented separately in Table 3.4 and Table 3.5. In all, the relationship between female outreach and entrepreneurship is significant positive, providing initial evidence that MFIs that service more female clients help promote entrepreneurship in developing countries. Female leadership variables are also positively correlated to MFI's female outreach.

3.4.2 Main results from testing Hypotheses 3.1a-1c

Table 3. 6 Female Leadership in MFIs and Their Outreach to Female Clients

	OLS clustering			2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)
	F_client%	F_client%	F_client%	F_client%	F_client%	F_client%
F_board	0.099			0.6887		
	(2.89***)			(5.76***)		
F_manag		0.1139			0.4066	
		(3.43***)			(6.87***)	
F_officer			0.2107			0.2471
			(5.99***)			(7.80***)
leverage	-0.0019	-0.0021	-0.0017	-0.0025	-0.0026	-0.0017
	(-2.06**)	(-2.14**)	(-1.79*)	(-2.38**)	(-3.00***)	(-2.18**)
Size	-0.0037	-0.0025	-0.0048	0.0083	0.0057	-0.0047
	(-0.54)	(-0.37)	(-0.71)	(1.24)	(1.03)	(-1.01)
ROA_lag	-0.0662	-0.0705	0.0511	-0.1243	-0.1067	-0.0502
	(-1.10)	(-1.22)	(-0.85)	(-1.51)	(-1.56)	(-0.84)
Writeoff_	-0.1979	-0.1569	-0.2251	-0.3454	-0.1152	-0.2340
	(-1.15)	(-0.83)	(-1.37)	(-1.90*)	(-0.76)	(-1.76*)
GNI_lag	-8.25E-06	-7.83E-06	-7.48E-06	-7.51E-06	-6.43E-06	-7.33E-06
	(-0.53)	(-0.50)	(-0.50)	(-0.32)	(-0.33)	(-0.43)
Constant	0.3438	0.3370	0.3088	0.2723	0.2888	0.3007
	(7.60***)	(7.31***)	(6.48***)	(1.30)	(1.64)	(1.94*)
Year	Yes	Yes	Yes	Yes	Yes	Yes
Country	Yes	Yes	Yes	Yes	Yes	Yes
N	882	882	882	882	882	882
F Value	13.95***	14.22***	15.71***	8.41***	11.97***	15.40***
Adj_R^2	0.5668	0.5719	0.5977	0.2608	0.4810	0.5965

*p<0.10, **p<0.05, ***p<0.01

The main results for Hypotheses 3.1a-1c based on Equation (1) are tabulated in Table 3.6, and the dependent variable is *F_borrower*, measured by the number of female clients scaled by the total number of clients. The first three columns present the results from OLS with clustering errors by controlling year and country fixed effects. The coefficients on female leadership variables are 0.099 for *F_board*, 0.114 for *F-manager*, and 0.211 for *F_officer*, respectively, and all of them are significant at the 1% level. These findings indicate that higher levels of female leadership in MFIs as board members, managers, and loan officers, enhance their outreach to female clients.

I also notice that when MFIs mainly target women clients, the latter may urge MFIs to hire more female employees to provide better services. Thus, female clients and women employed by MFIs are likely to have simultaneous effects, especially between female clients and female loan officers, who have frequent and close contacts. To alleviate endogeneity concerns, I use a two-stage least square approach with the female employee ratio (*F_employee*) in MFIs as the instrumental variable. As reported in the last three columns of Table 3.6, results from three tests, the Kleibergen-Paap rank LM test for regression under-identification, the Kleibergen-Paap rank Wald F statistic test for weak identification, and the Hansen J statistic test for over-identification, unanimously confirm the validity of this instrumental variable. Furthermore, the results from the GMM, especially the coefficients on the three female leadership variables, indicate no qualitative change from those based on the OLS with clustering errors. Meanwhile, stronger economic significance of the effects of female leadership in MFIs on their female outreach is found using the GMM, and Hypotheses 3.1a-c are not rejected.

3.4.3 Main results from testing Hypotheses 3.2 and 3.3

Table 3. 7 MFIs' Outreach to Female Clients and Entrepreneurship

	(1)	(2)	(3)	(4)	(5)
F_borrower	1.1948			3.0668	3.1112
	(2.99***)			(3.79***)	(3.60***)
legalenv		-0.5304	-1.4323	-1.8420	-2.9879
		(-1.46)	(-2.12**)	(-2.99***)	(-2.43***)
$legalenv^2$			-0.6522		-0.8624
			(-1.58)		(-1.14)
F_borrower* legalenv				2.0501	2.6625
				(2.67***)	(1.68*)
F_borrower* $legalenv^2$					0.4933
					(0.52)
leverage	-0.0074	-0.0086	0.0083	-0.0048	-0.0046
	(-1.89*)	(-2.16**)	(-2.10**)	(-1.20)	(-1.15)
size	0.4247	0.4288	0.4278	0.4025	0.4046
	(4.61***)	(4.57***)	(4.58***)	(4.40***)	(4.42***)
ROA_lag	-0.4704	-0.2967	-0.2617	-0.2688	-0.2594
	(-0.86)	(-0.53)	(-0.47)	(-0.49)	(-0.47)
Writeoff_lag	-1.2253	-0.9404	-0.9904	-1.3649	-1.3999
	(-1.31)	(-0.99)	(-1.04)	(-1.47)	(-1.50)
GNI_lag	4.28E-05	5.79E-05	7.98E-05	5.66E-05	7.74E-05
	(0.87)	(1.13)	(1.51)	(1.14)	(1.49)
Constant	6.5464	6.8902	6.6784	5.0192	4.7915
	(13.07***)	(13.57***)	(12.75***)	(7.10***)	(6.37***)
N	752	752	752	752	752
F Value	7.05***	5.76***	5.33***	6.59***	5.46***
Adjusted R^2	0.6428	0.4292	0.3283	0.5504	0.5000

*p<0.10, **p<0.05, ***p<0.01

To reveal the influence of MFI's outreach to female clients on promoting entrepreneurship and to explore the moderating role played by legal environment in this relationship, I run regressions based on Equation (3.2). Results presented in Column (1) of Table 3.7 show that local entrepreneurship is promoted by MFIs' lending to more female clients, with a coefficient 1.195 on *F_borrower* which is significant at the 1% level. After the legal environment variable (*legalenv*) and the interaction term

(*F_borrower*legalenv*) are introduced to the analysis, I find that the coefficients on both the independent variable (*F_borrower*) and the interaction variable (*F_borrower*legalenv*) are positive and significant at the 1% level. These results presented in Column (4) of Table 3.7 indicate that MFI's outreach to female clients does help promote entrepreneurship, and this relationship is strengthened in better legal environment.

Figure 3.2 The Moderating Effect of Legal Environment on the Relationship between MFIs Outreach to Female and Entrepreneurship

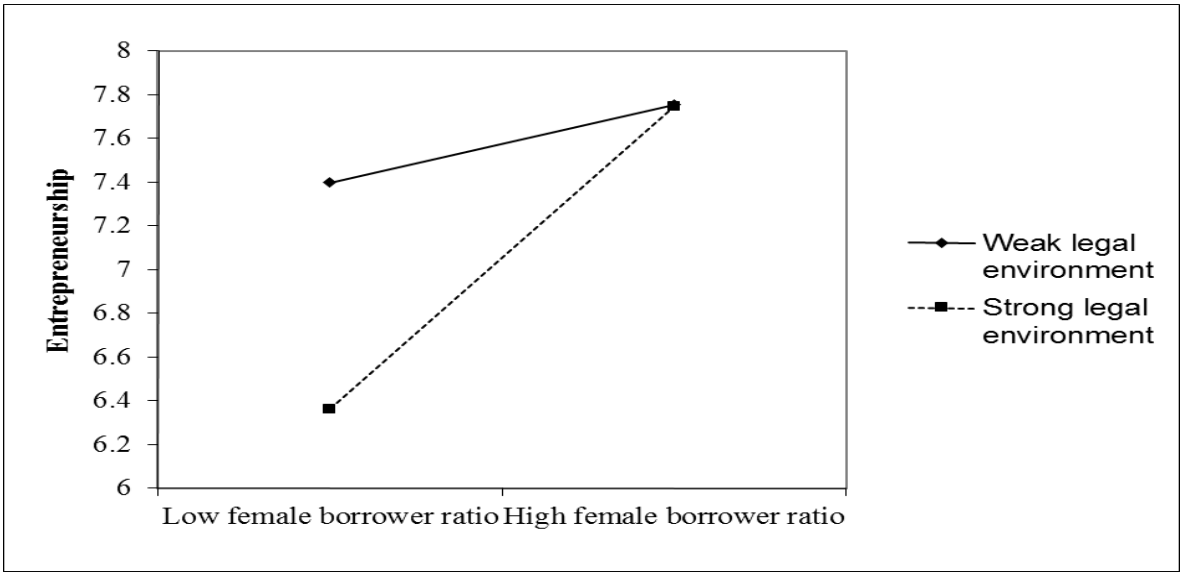


Figure 3.2 plots the interactive effects between female outreach and legal environment. The solid line represents the positive impact of outreach to female client in countries with weak legal environment. In contrast, the dotted line measures the influence in countries with strong legal environment and displays a much steeper slope, suggesting that the positive influence will be stronger in better legal environment. Thus, it confirms that in countries with stronger legal environment, the effects of female outreach of MFIs

on their promoting entrepreneurship are stronger than those in countries with weaker legal protection. Thus, neither Hypothesis 3.2 nor Hypothesis 3.3 is rejected.

In further analysis, I examine the potential non-linear effects of legal environment on promoting entrepreneurship. As shown by results presented in Column (5) of Table 3.7, little evidence has been found to support them because the coefficients on both variables associated with the squared term of legal environment, $legalenv^2$ and $F\_borrower*legalenv^2$, are insignificant.

3.4.4 Limitations

Although my robustness tests support the main findings, my study is subject to some limitations. First, the data sample is unbalanced, leading to less efficient observations for the regression analysis, especially for the analysis of entrepreneurship. Second, I propose that gender affinity in decision-making facilitates MFI programs that are beneficial for female borrowers. Unfortunately, I do not have access to information about top management teams, who are the ultimate decision-makers. Instead, I use female managers, who are likely to have less power in setting MFIs' policy orientations. Doing so may weaken the effects of gender affinity on decision-making. However, the empirical results show that female managers have a significantly positive influence on MFI outreach to women, providing indirect evidence that the positive effect of gender affinity may even be greater in decision-makers.

Third, group lending is an important factor in study MFI's performance as it alleviates the potential agency problems as it uses a group of people's future access to credit as personal lending collateral (Phan, 2009; Chakravarty and Shahriar, 2015). This classic microfinance model inevitably influences an individual's decisions about how to

use their capital. For instance, the risk embodied in entrepreneurship is not only borne by an entrepreneur, but also shared by the rest of the people in her group. The people in the group who do not have a connection with the entrepreneur will suffer potential impediments from the MFI if the entrepreneur is not able to repay their loan due to entrepreneurship failure, but will not enjoy the benefits if the entrepreneurship is successful. Once a business is started, group pressure may force a borrower to use their credit to continue the venture. Unfortunately, the information for aforementioned variables is mismatched with that of the current variables, leading to insufficient data for a regression analysis.

3.5 Conclusions and Future Research Directions

According to *MicroBanking Bulletin,* the microfinance industry has expanded rapidly. By the end of 2009, there were nearly 1,100 MFIs serving almost 75 million borrowers. Therefore, microfinance has attracted increasing attention from academic researchers, practitioners, and policy makers. Previous research frequently emphasizes MFIs' financial objectives, but draws less focus on their social performance, especially their impacts on gender equality in outreach and promoting local entrepreneurship. There is also very limited evidence to show how female leadership in MFIs impacts their outreach to female clients. In addition, whether the heterogeneity in legal environment can influence the female outreach-entrepreneurship relationship in microfinance is rarely explored.

Helping fill these gaps in the microfinance literature, I examine the effects of female leadership in MFIs on their social performance in advancing outreach to female clients, as well as whether, and if yes how, this promotes entrepreneurship. I find that

when more women serve as managers, board members and loan officers, MFIs improve their outreach to female clients. Furthermore, my findings indicate that when the lending capacity is fixed, greater outreach to female clients promotes local entrepreneurship. These results are interpreted by the principles of homophily and risk aversion. In addition, the positive association between MFI's outreach to female borrowers and promoting entrepreneurship is strengthened by better legal environment. This echoes the traditional institutional theory, and can be interpreted by one of its three key forces, the regulatory force. Findings of this chapter extend the entrepreneurship and microfinance literature by presenting the impacts of female leadership in MFIs on their outreach to women borrowers, and ultimately on gender inequality and female entrepreneurship. This chapter also advances our understanding of how local entrepreneurship can benefit from removing the obstacles for women to access financial capital and how the benefits can vary in counties with different levels of legal environment.

This chapter lays the foundation for multiple directions of future studies. First, the current research only considers a limited number of borrowers' characteristics due to the lack of data, while some important factors such as family wealth and lending methods can largely affect women's risk tolerance and their decisions on micro-financing and entrepreneurship. By collecting such data for future analysis, one can enrich the understanding of how entrepreneurship is inspired by women borrowers.

Second, microfinance is intended to alleviate poverty concerns, and therefore a future study can directly specify and track the impacts of microfinance on economic growth and employment, especially in rural areas. Rural clients tend to be poorer than those living in urban areas. Direct contact between rural clients and loan officers is also

inconvenient, especially for those rural villages that are geographically distant from loan offices (Randøy et al., 2015). A large rural client ratio may discourage contact between loan officers and borrowers and narrow the borrowers' choices for credit usage. Thus, studying MFI's social performance in rural areas is important, timely, and interesting.

Third, MFIs is beyond lending money to the borrowers. Instead, loan officers of MFIs need to frequently meet with their clients to provide post-lending instructions and suggestions. As a result, their target clients may have restricted geographic distribution. Specifically, it is very likely that borrowers in urban areas close to MFIs' headquarters or branches have easier access to the funds, while it is harder for those real poor people from rural area to access MFIs' financial services. Scholars can devote more efforts to this avenue of future research.

Chapter 4 Family Involvement and Family Firm Internationalization: The Moderating Effects of Board Experience and Geographical Distance

4.1 Introduction

Internationalization is an important strategic option for a firm's growth (Lu & Beamish, 2001; Zahra, Ireland, & Hitt, 2000). Internationalization is also critical for the long-term survival of family firms. Regarding the literature on internationalization in family firms, prior research has generated mixed findings (e.g., Arregle, Naldi, Nordqvist, & Hitt, 2012; Essen, Carney, Gedajlovic & Heugens, 2015; Chen, Liu, Ni, & Wu, 2015; Gomez-Mejia, Makri, & Kintana, 2010; Pukall & Calabro, 2014; Zahra, 2003). Some research shows that family influence is positively associated with internationalization (e.g., Zahra, 2003), while other research shows a negative effect (e.g., Fernández & Nieto, 2005; Gomez-Mejia, Makri, & Kintana, 2010). Still others have found a nonlinear relationship between family involvement and firm internationalization (e.g., Liang, Wang, & Cui, 2014). Thus, the precise effect of family involvement on a firm's internationalization remains unclear.

A possible reason for these mixed results is that the conditions of "ability" and "willingness" in the family influence on a firm's behavior have not been effectively accounted for. De Massis, Kotlar, Chua, & Chrisman (2014) suggest that family involvement gives the family "ability" in terms of discretion to act idiosyncratically; however, "ability" is a necessary but insufficient condition for the family to exert influence on the firm's behavior. The involved family's "willingness" in terms of intention or commitment to engage in the specific behavior is equally important.

However, with a few exceptions (see Calabro, Mussolino, & Huse, 2009; Zahra, 2003), most research on family business internationalization has used family ownership and/or management as proxies for family involvement (Gomez-Mejia, Makri, & Kintana, 2010; Sanchez-Bueno & Usero, 2014), which fails to capture the "willingness" of family influence. Hence, a more fine-grained examination of family influence is needed to gain a clear and precise understanding of how family involvement affects firm internationalization. Specifically, the influence of the identity of the board chair (family vs. nonfamily member) and the involvement of multiple family generations—two more precise indicators of a family's willingness to pursue family-centered goals and engage in idiosyncratic behavior—have not been fully investigated.

Another possible reason for the mixed findings is that family firms vary in their resource bases. As resources play a pivotal role in a firm's international activities (Peng, 2001), especially intangible resources such as knowledge and expertise, the stock of resources available to a family firm should have important implications for its international behavior. Indeed, previous research suggests that family firms do not usually favor resource-demanding strategies such as internationalization due to their limited access to resources (Arregle, Naldi, Nordqvist, & Hitt, 2012; Gomez-Mejia, Makri, & Kintana, 2010; Schulze, Lubatkin, Dino, & Buchholtz, 2001). To overcome their resource constraints, family firms may involve multiple family generations in the business (Miller & Le Breton-Miller, 2006), hire independent external directors (Arregle, Naldi, Nordqvist, & Hitt, 2012), or select directors with different backgrounds. For example, Arregle, Naldi, Nordqvist, & Hitt (2012) found that a high representation of external directors can increase a firm's international activities because these directors can

share experience from previous international ventures and serve as channels for communicating with external parties. However, the literature on family business internationalization has not paid enough attention to how the board chair and the involvement of multiple generations in a business affects its international activities, especially from a resource perspective, and I know even less about how these effects may depend on other factors, e.g., overall board experience.

I thus introduce the provision of resources through multiple generational involvement and board experience as factors affecting a family firm's international behavior. It may also be helpful to consider the target market environment, especially geographical location, to obtain a more complete understanding of the influence of family involvement on firm internationalization. The international business literature suggests that the geographical location of the target market is an important element firms consider when deciding on international activities (Goerzen & Beamish, 2003). Internationalizing to geographically distant regions requires a larger set of resources and brings higher costs (Sorenson & Stuart, 2001; van Kranenburg, Hagedoorn, & Lorenz-Orlean, 2014). Therefore, as the geographical location of target market may have implications for how family involvement affects internationalization, I examine this effect.

Following the suggestion of De Massis, Kotlar, Chua, & Chrisman (2014), I also examine the influence of two indicators of family's willingness, namely the presence of a family member as board chair and the involvement of multiple family generations, on the international behavior of family firms. Moreover, from a resource perspective, I investigate how the effect of family involvement is contingent on the level of experience of the board of directors. I also examine whether the effects on internationalization of a

family board chair and multiple family generations is consistent across different geographical regions. This chapter extends the family business research in three key ways. First, it confirms De Massis, Kotlar, Chua, and Chrisman's (2014) notion that both ability and willingness are important conditions of family influence on firm behavior. Second, this chapter highlights the important influence of multiple family generations and board member experience on the internationalization of family firms, confirming their role in providing key resources for internationalization. Third, this study shows that the influence of multiple family generations is more salient when internationalization involves geographically distant target markets, confirming the need to consider the target market environment when investigating the internationalization of family firms.

The rest of the chapter 4 is structured as follows. I first explain the overarching theoretical framework guiding this study and then propose a set of hypotheses in Section 4.2. Next, I describe the methodology used to test these hypotheses in Section 4.3. The results are then presented and discussed in Section 4.4, and in Section 4.5 I conclude by considering the limitations and contributions of this chapter.

4.2 Theories and Hypotheses

The resource-based view (RBV) (Barney, 1991; Hennart, 1982) long applied in the field of international business (Barney, Wright, & Ketchen, 2001; Peng, 2001) holds that "international diversification seeks to use internal resources and capabilities to exploit market imperfections existing across global regions and countries" (Hitt, Hoskisson, & Kim, 1997:769). This indicates that a firm's international activities depend on their stock of knowledge related to foreign markets and institutional environments and their experience of international activities in different countries (Casillas & Moreno-

Menéndez, 2014; Eriksson, Johanson, Majkgard, & Sharma, 1997; Madhok, 1997). However, family-controlled firms may face unique challenges in internationalization (Graves & Thomas, 2006) because of their limited resources (Sirmon & Hitt, 2003) and restricted talent pool (Carney, 1998; Chrisman, Memili, & Misra, 2013; Le Breton-Miller, Miller, & Lester, 2011). Yet, family firms can complement their limited resources by recruiting diverse board members (Jones, Makri, & Gomez-Mejia, 2008) and involving multiple family generations in the firm (Miller & Le Breton-Miller, 2006). For example, previous research has shown that board members, especially if they are external and independent, can facilitate international activity in family firms as well as non-family firms by providing external links and access to external resources (e.g., Arregle, Naldi, Nordqvist, & Hitt, 2012; Bloodgood, Sapienza, & Almeida, 1996; Chen, 2011; Jones, Makri, & Gomez-Mejia, 2008).

In addition to their limited resources, the desire to preserve socio-emotional wealth (SEW) may further impede internationalization by family firms. SEW is a non-economic utility a family derives from owning and controlling the family firm. For example, through preserving SEW, family firms are found to be less diversified (Jones, Makri, & Gómez-Mejía, 2008; Gómez-Mejía, Makri, & Kintana, 2010), invest less in R&D (Chrisman & Patel, 2012; Patel & Chrisman, 2013), accept increased financial risk (Gomez-Mejia et al., 2007), and have greater IPO underpricing (Leitterstorf & Rau, 2014). These studies also confirm that concern over the loss of SEW is a primary reference point in strategic decision making in family firms (Gomez-Mejia, Cruz, Berrone, & De Castro, 2011). Because family firms are averse to the risk of losing control of the firm, and incorporating outsiders increases this risk, family firms are less

likely to internationalize (Gomez-Mejia, Makri, & Kintana, 2010), even though internationalization might expand family firms' repuation and social capital (Essen, Carney, Gedajlovic & Heugens, 2015; Zahra, 2003).

Based on the influence of resources and SEW, the next section develops hypotheses regarding the effect of a family member as board chair, the involvement of multiple family generations, and board experience as independent and interactive factors in the internationalization of family firms.

4.2.1 Family Board Chair and Family Firm Internationalization

The resource provision role of boards of directors in influencing a firm's strategic decision-making has long been recognized in the corporate governance literature (Dalton, Daily, Ellstrand, & Jonathan, 1998; Johnson, Daily, & Ellstrand, 1996). The board chair has been described as "the most important officer of the board" (Smith, 2000, p. 35), and the "first among equals" (Davis, 1992, p. 164). Thus, the strategic behavior of family firms may be influenced by the identity of the board chair (i.e., a family vs. a nonfamily member). In this chapter, I propose that a family board chair may negatively affect the internationalization of a family firm. First, from a resource perspective, family firms with a family board chair may have more limited resources than those with an externally recruited chair. Since internationalization requires knowledge and expertise related to external markets and institutional environments (Arregle, Naldi, Nordqvist, & Hitt, 2012; Hitt, Uhlenbruck, & Shimizu, 2006), a family board chair may have less knowledge of external markets and thus be less likely to engage in international activity. In contrast, a nonfamily board chair is likely to serve as a channel to external parties and provide the

firm with new knowledge and perspectives to help with strategic decision making, thus promoting international activity.

Second, the presence of a family board chair is more likely to attend to the preferences of the controlling family toward preserving SEW for the family. As family firms are generally unwilling to risk the loss of SEW, and internationalization is a risky strategic decision that may pose a potential hazard to SEW, I expect that family firms with a family board chair are less likely to engage in international expansion than other family firms. Taken together, I argue that a family board chair reduces internationalization due to constrained resources and a strong tendency to preserve SEW.

Hypothesis 4.1: *Family firms whose board chair is a family member have lower levels of internationalization than family firms whose board chair is not a family member.*

4.2.2 The Involvement of Multiple Generations and Family Firm Internationalization

Previous research suggests that fresh insights and different perspectives from family members of different generations, especially younger generations, help to build a firm's capabilities (Habbershon, Williams, & MacMillan, 2003; Miller & Le Breton-Miller, 2006) and identify and exploit entrepreneurial opportunities (Chen et al., 2016; Hsu & Chang, 2011; Kellermanns, Eddleston, Barnett, & Pearson, 2008; Kellermanns & Eddleston, 2006; Miller et al., 2014). Miller et al. (2014) argue that subsequent generations with better education and international experience are more likely to pursue the international expansion. Insights from the literature on top management teams suggest that diversity among members, especially cognitive diversity, promotes information

sharing (Bunderson & Sutcliffe, 2002) and improves decision comprehensiveness (Simons, Pelled, & Smith, 1999). Consistent with prior research (Fernández & Nieto, 2005), I argue that the wide-ranging expertise provided by multiple family members (Miller, Le Breton-Miller, Minichilli, Corbetta, & Pittino, 2014; Ward, 2006) can oversee the business expansion to overseas markets and encourage a firm's international activities. Moreover, the involvement of multiple generations of family members in management can improve knowledge sharing in both formal and informal ways and such sharing can strengthen a firm's capabilities to grow their operations and businesses (Zahra, Neubaum, & Larrañeta, 2007).

Younger generations are also more likely to take risks and engage in international activities. Research suggests that the presence of different generations of family members in a family firm is conducive to creating an organizational culture that encourages risk tasking (Lansberg, 1999; Zahra, 2003), thus increasing opportunities for international expansion. Parker (2016) illustrate that investment in intangible capital can enhance the offspring's willingness to continue the family business. Through multiple generation involvement, older family members can help subsequent generations build up international experience and learn tacit knowledge. As a consequence, younger family members are more likely to continue the family business rather than sell the firm, preserving family'SEW.

Last, multiple generations in the business may also incentivize the firm to look beyond the domestic market to the broader international market to meet the diverse career needs of different family generations. Thus, I hypothesize:

Hypothesis 4.2: *Family firms with multiple family generations involved in management and governance show greater internationalization than those with only one generation is involved.*

4.2.3 The Moderating Effects of Board Experience

Hypothesis 4.1 suggests that a family board chair will have an inverse effect on a family firm's international behavior. This relationship, however, is not expected to be uniform across all family firms. I argue that the strength of the association between a family board chair and internationalization may depend on the level of experience of the board. Specifically, I propose that increased board experience will weaken the negative effect of a family board chair on internationalization.

From a resource perspective, the board is a major source of knowledge and expertise for a firm (Barroso, Villegas, & P´erez-Calero, 2011; Zahra & Filatotchev, 2004). The board not only provides channels of information to external organizations, but also helps the firm to acquire outside resources (Hillman & Dalziel, 2003). Research has shown that a firm's strategic decisions are influenced by the prior experience of board directors with such strategies (Barroso, Villegas, & P´erez-Calero, 2011; Haunschild & Beckman, 1998; Zhu & Chen, 2015). Therefore, I expect the experience of board directors can influence a firm's internationalization behavior. First, a board with great experience, whether related to international markets or not, should complement the knowledge shortage associated with a family board chair by identifying and exploiting international opportunities, thus reducing the negative effect on internationalization of the resource constraints resulting from a family board chair. Second, uncertainty and complexity are often associated with foreign markets (Sanders & Carpenter, 1998). The

general business knowledge and collective experience of the board can provide the firm with additional resources to reduce the uncertainty of doing business in unknown markets, hence reducing the negative effect of a family board chair. Third, from a SEW preservation perspective, the availability of board experience as an internal resource may make family firms less reliant on external expertise and resources for international expansion, thus reducing the likelihood of diluting control over the firm and the loss of SEW. Likewise, I argue that board experience can strengthen the positive effect of generational involvement on internationalization by providing advice and serving as channels with external parties. Taken together, I hypothesize:

Hypothesis 4.3a: *Board experience moderates the negative effect of a family board chair on internationalization such that the negative relationship is weakened.*

Hypothesis 4.3b: *Board experience moderates the positive effect of multiple family generations on internationalization such that the positive relationship is strengthened.*

4.2.4 Geographical Distance as A Moderator

I further propose that the geographical location of the target market has an important influence on the effects of family involvement on firm internationalization. The literature on cross-border technology transfer suggests that the geographic distance between partners is important in a firm's decision to transfer technology (Ghemawat, 2001; Jaffe, Trajtenberg, & Henderson, 1993; Kim, 2009). Greater physical distance increases the challenge for firms to communicate and exchange information, thus they are less likely to choose technology partners in distant regions (Van Kranenburg, Hagedoorn, & Lorenz-

Orlean, 2014). Following this logic, I argue that greater physical distance between the home country and target market makes it more difficult for firms to communicatiate with foreign partners, and thus requires more resources. As discussed, family board chairs can impede internationalization due to their limited resources. This negative effect of a family board chair should thus have a more pronounced effect on internationalizing to distant regions, which requires more resources and expertise.

Increased physical distance is also likely to increase the cost of seeking partners with the right competencies (Sorenson & Stuart, 2001). As family firms with a family board chair are more likely to try to preserve SEW, they should be less likely to take on the extra risk and cost of international activities in distant regions. Furthermore, distant regions such as Asia-Pacific generally have a larger cultural distance from the home country, implying different mindsets and norms (Hofstede, 1980), thus a greater risk of disrupting the traditional core values of a family firm. I therefore expect family firms with a family board chair to be less willing to take such risks. Likewise, the positive effect of multiple family generations on internationalization should be more pronounced in more distant regions, because the generations have diverse perspectives and greater willingness to take risks and invest extra costs in distant regions. Taken together, I hypothesize:

> **Hypothesis 4.4a:** *The negative effect of a family board chair on internationalization is more pronounced for regions that are geographically more distant.*

Hypothesis 4.4b: *The positive effect of the involvement of multiple family generations on internationalization is more pronounced for regions that are geographically more distant.*

4.3 Methodology

4.3.1 Sample

I test my hypotheses using longitudinal data from Standard and Poor's (S&P) 500 company index, based on the availability and reliability of data on family involvement, accounting details, and internationalization. I adopt a list of 177 U.S. family firms published in *Business Week* (2003) as my sample. Multiple data sources are utilized to operationalize the measures. Standard and Poor's Compustat's business segment database is used to gather overall and regional internationalization information for family firms. Data related to family board chairs and the number of family generations involved in a firm is hand-collected from firm proxy statements and their annual reports (10-K) filed with the Securities and Exchange Commission (SEC)[13]. Data related to board experience for 2007-2010 is obtained from Compustat's Institutional Shareholder Services (ISS)[14] database, and hand-collected for 2006. After removing observations with missing values, my final data sample consists of 112 family firms, representing 460 firm-year observations from 2006 to 2010. To control for potential survivorship bias I use the same list of family firms for the entire sample period (Anderson & Reeb, 2003).

[13] Accessed online through http://www.sec.gov/edgar/searchedgar/companysearch.html

[14] Institutional Shareholder Services offers board director information only after 2006

4.3.2 Measurement

Table 4.1 Variable Definition

Variables	Definition
Internationalization	Firm's sales to outside US regions scaled by total sales
Americas	Firm's sales to non-US America regions scaled by total foreign sales
EU_APAC	Firm's sales to Europe and Asia-Pacific regions scaled by total foreign sales
board experience	Firm board directors experience, measured by the average age of all board directors
family board chair	An indicator variable that takes the value of 1 for firms where board chair is family
multiple family	An indicator variable that takes the value of 1 for firms where at least two family
firm age	Firm age measured by the number of years a firm was incorporated in CRSP
firm performance	Return on assets (Net income scaled by total assets)
firm size	The size of the firm (natural log of number of total employees)
firm leverage	Financial leverage (total liabilities scaled by total assets)
manufacturing	An indicator variable that takes the value of 1 for firms in Manu industry, and 0
board size	The size of the firm board (natural log of number of board directors)
CEO tenure	CEO tenure in the firm (natural log of years of CEO in the firm)

The dependent variable *Internationalization* captures the extent to which a family firm is internationalized. Following prior research (e.g., Hitt, Hoskisson, & Kim, 1997; Gomez-Mejia, Makri, & Kintana, 2010), this is calculated based on the sales generated from foreign markets divided by the firm's total sales for a particular year. Independent variables are *family board chair* and *multiple family generations involved in the business*. I use a dummy variable coded 1 if the chair is a family member and 0 otherwise. Similarly, the business is coded 1 if there are two or more generations involved in the business and 0 otherwise. Consistent with the current literature (Judge et al., 2015), the moderator variable *board experience* is measured using the average age of the directors on the board.

In addition, I control for *firm age, firm size, firm performance, firm leverage, manufacturing, CEO tenure,* and *board size.* As the different challenges faced at different

stages of a firm's life cycle (Sorenson & Stuart, 2000; Arregle et al., 2013), can affect its international activities, firm age is controlled using its number of years in business. Firm size is controlled because larger firms have more resources they can use for international activities (Zahra, 2003), and is calculated using the logarithm of the number of employees. I control for firm accounting performance because this affects internationalization (Zahra, Neubaum, & Huse, 1997), and measure it using return on assets (ROA). Firm leverage is measured as total liabilities divided by total assets. Firm industry is controlled because this may affect the potential for internationalization (Liang, Wang, & Cui, 2014), and I use a dummy variable coded 1 for the manufacturing industry and 0 otherwise (Gomez-Mejia, Makri, & Kintana, 2010; Arregle, Naldi, Nordqvist, & Hitt, 2012). Decision-making in a firm is greatly affected by the CEO, whose power is reflected by tenure (Gomez-Mejia, Makri, & Kintana, 2010), thus I measure the number of years the CEO has held the position (Gomez-Mejia, Makri, & Kintana, 2010). Last, I control for board size, as a bigger board may improve effectiveness (Jensen & Meckling, 1976), and so contribute to internationalization. Table 4.1 summarizes the variable definitions.

4.3.3 Model Specification and Estimation

Following previous approaches (e.g., Anderson & Reeb, 2003; Gomez-Mejia, Makri, & Kintana, 2010), I test my hypotheses using pooled ordinary least (OLS) estimates and robust standard errors. I first examine the main effects of a family board chair and the involvement of multiple family generations on firm internationalization. Then, I add the interaction term of board experience. The estimated models are as follows,

$$Internationalization_{it} = \beta_0 + \beta_1 Control_{it} + \varepsilon_{it}, \quad (4.1)$$

$$Internationalization_{it} =$$
$$\beta_0 + \beta_1 family\ board\ chair_{it} + \beta_2 multiple\ family\ generations\ involvement_{it} +$$
$$\beta_2 board\ experience_{it} + \beta_3 Control_{it} + \varepsilon_{it}, \quad (4.2)$$

$$Internationalization_{it} =$$
$$\beta_0 + \beta_1 family\ board\ chair_{it} + \beta_2 multiple\ family\ generations\ involvement_{it} +$$
$$\beta_3 board\ experience_{it} + \beta_4 family\ board\ chair_{it} * board\ experience_{it} +$$
$$\beta_5 Control_{it} + \varepsilon_{it}, \quad (4.3)$$

$$Internationalization_{it} =$$
$$\beta_0 + \beta_1 family\ board\ chair_{it} + \beta_2 multiple\ family\ generations\ involvement_{it} +$$
$$\beta_3 board\ experience_{it} + \beta_4 multiple\ family\ generations\ involvement_{it} *$$
$$board\ experience_{it} + \beta_5 Control_{it} + \varepsilon_{it}, \quad (4.4),$$

where equation (4.1) is the baseline model and equation (4.2) explores the degree of international diversification when the board chair is a family member and the family has two or more generations involved in the business (H4.1 and H4.2). Equations (4.3) and (4.4) examine the potential moderating effects of board director experience on the main effects of a family board chair and multiple generational involvement on firm internationalization (H4.3a and H4.3b).

To test Hypotheses 4.4a and 4.4b, I repeat my regression analyses of models (4.1) to (4.4) based on sub-regional samples divided according to geographic distance from the

home country. Following Gomez-Mejia et al. (2010), I consider Asia-Pacific and Europe geographically distant and American regions close. Rather than do the regression analysis for Asia-Pacific or Europe respectively since there are limited observations available for each region, I combine the sales of two regions and regard it as the sales to the geographically distant regions. Further, the year effect is controlled in my regression model to alleviate the effect of the business environment cycle. All variables are standardized for regression analysis to mitigate variable scaling effects.

4.4 Empirical Results

The descriptive statistics and correlation coefficients for all variables are shown in Table 4.2. On average, foreign sales account for 29 percent of total sales for my sample firms. The majority of international sales, 39 percent of total sales, are to geographically distant regions in Europe and Asia-Pacific, and 20 percent is to American regions. Forty-eight percent of my sample firms have a family board chair, and 10 percent have two or more family generations in management and/or governance of the firm. Board member experience measured by average age is 61.5, and average CEO turnover is approximately 6 years. I observe large heterogeneity in family firm age, operating performance, size, and leverage, all showing wide variance around the mean. Last, approximately half of my sample firms are in the manufacturing industry.

Table 4.1 Descriptive Statistics and Correlation

Variables	Mean	S.D.	0.25	Median	0.75	1	2	3	4	5	6	7	8	9	10	11	12
1.Internationalization	0.29	0.33	0.00	0.16	0.51												
2.Americas	0.20	0.32	0.00	0.00	0.28	0.31***											
3.EU_APAC	0.39	0.43	0.00	0.18	0.88	0.58***	-0.18***										
4.board experience	61.54	3.29	59.35	61.35	63.60	0.06	0.04	0.02									
5. family board chair	0.48	0.50	0.00	0.00	1.00	-0.09	-0.06	-0.14**	0.09								
6. multiple family generations	0.10	0.30	0.00	0.00	0.00	0.13**	0.00	0.17***	0.07	0.22***							
7. firm age	3.35	0.54	2.99	3.38	3.73	0.10*	0.04	0.13**	0.09	-0.08	0.00						
8.firm performance	0.06	0.08	0.03	0.06	0.10	0.01	-0.04	0.14**	0.00	-0.05	0.11*	0.04					
9.firm size	3.17	1.13	2.26	3.09	3.88	-0.05	0.21***	-0.14**	-0.04	0.00	-0.02	0.20***	0.13**				
10.firm leverage	0.54	0.19	0.42	0.53	0.67	-0.11*	0.06	-0.13**	0.05	0.03	-0.13**	0.13**	-0.23***	0.06			
11.manufacturing	0.52	0.50	0.00	1.00	1.00	0.37***	-0.07	0.48***	-0.07	-0.11*	0.02	0.17***	-0.05	-0.24***	-0.01		
12.board size	2.45	0.19	2.30	2.49	2.57	0.07	0.19***	-0.02	0.03	0.20***	0.28***	0.34***	0.01	0.21***	0.04	-0.02	
13.CEO tenure	1.74	0.84	1.10	1.79	2.30	0.01	0.03	0.01	0.21***	0.08	-0.09*	-0.03	0.06	0.03	-0.10*	-0.06	-0.11*

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Consistent with my expectations, the correlation matrix shows significant relationships among my variables of interest and provides preliminary support for my hypotheses. The presence of a family board chair is found to have a negative effect on firm internationalization. Furthermore, the involvement of multiple family generations has a significant and positive effect on firm internationalization at the 0.05 level. Table 4.2 shows significant relationships between control variables such as firm age, industry, and international sales, confirming the need to control for these variables.

Table 4.1 Results from Testing Hypotheses 4.1-4.3

	Internationalization	*Internationalization*	*Internationalization*	*Internationalization*
family board chair		-0.087*	-0.084*	-0.089*
		(0.045)	(0.045)	(0.046)
multiple family generations involvement		0.117***	0.103**	0.114***
		(0.039)	(0.040)	(0.039)
board experience		0.073*	0.062	0.069
		(0.043)	(0.042)	(0.044)
*family board chair*board experience*			0.128***	
			(0.041)	
*multiple family generations involvement *board experience*				0.021
				(0.032)
firm age	0.017	0.009	0.017	0.011
	(0.048)	(0.049)	(0.049)	(0.049)
Firm performance	0.004	-0.012	-0.015	-0.013
	(0.062)	(0.060)	(0.058)	(0.060)
firm size	0.020	0.031	0.043	0.031
	(0.043)	(0.042)	(0.042)	(0.042)
firm leverage	-0.122**	-0.109**	-0.110**	-0.107**
	(0.048)	(0.048)	(0.048)	(0.049)
Manufacturing	0.370***	0.366***	0.359***	0.367***
	(0.044)	(0.044)	(0.044)	(0.044)
board size	0.068	0.051	0.050	0.051
	(0.046)	(0.050)	(0.049)	(0.050)
CEO tenure	0.021	0.025	0.021	0.025
	(0.045)	(0.047)	(0.046)	(0.047)
Year controlled	Yes	Yes	Yes	Yes
N	460	460	460	460
F-Stat	9.59***	11.79***	12.33***	11.00***
R2	0.1612	0.1822	0.1979	0.1828
Adj_R^2	0.1407	0.1565	0.1708	0.1552
Incre_R^2			0.016***	0.001

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

I use hierarchical regressions to test my hypotheses. For Hypotheses 4.1 and 4.2, I first run a baseline model (Model 1) including only the control variables, and then run Model (4.2) including the moderator and the two independent variables—family board chair and multiple generational involvement. The results are tabulated in Table 3. A family board chair is found to be negatively associated with family firm internationalization ($p<0.1$), while multiple generational involvement has a significant positive effect ($p<0.01$). Thus, Hypotheses 1 and 2 are both supported. I then add the interactions between the independent variables and the moderator to test Hypotheses 4.3a and 4.3b, and report their results under Models (4.3) and (4.4). Consistently, these results show that board experience positively moderates the negative effect of a family board chair on firm internationalization ($p<0.01$). Specifically, the negative effect of a family board chair is attenuated by the level of experience of board members. This highlights the importance of considering board experience when examining the role of board chair identity on the internationalization of family firms. However, I find no significant moderating effect of board experience on the relationship between multiple generational involvement and internationalization. In other words, the effect of multiple family generations on internationalization does not depend on their board experience. Hence, Hypothesis 4.3a is supported but Hypothesis 4.3b is rejected. I also test the variance inflation factors (VIF) for evidence of multicollinearity, which occurs at values of 10.0 or higher (Neter, Kutner, Nachtsheim, & Wasserman, 1996). All these scores in my study are below 2, suggesting that multicollinearity is not an issue in my analyses.

Table 4.4 Results from Testing Hypotheses 4.4a and 4.4b

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Americas	*Americas*	*Americas*	*Americas*	*EU_APAC*	*EU_APAC*	*EU_APAC*	*EU_APAC*
family board chair		-0.110**	-0.108**	-0.108**		-0.108**	-0.105**	-0.110***
		(0.049)	(0.048)	(0.049)		(0.042)	(0.042)	(0.042)
multiple family generations involvement		-0.015	-0.027	-0.011		0.178***	0.167***	0.173***
		(0.047)	(0.050)	(0.047)		(0.033)	(0.033)	(0.033)
board experience		0.039	0.029	0.045		0.035	0.026	0.029
		(0.043)	(0.042)	(0.042)		(0.037)	(0.035)	(0.039)
*family board chair*board experience*			0.112**				0.105***	
			(0.044)				(0.032)	
*multiple family generations involvement*board experience*				-0.035				0.035*
				(0.039)				(0.021)
firm age	-0.066	-0.087*	-0.081	-0.089*	0.065	0.063	0.069	0.065
	(0.050)	(0.051)	(0.051)	(0.051)	(0.046)	(0.050)	(0.049)	(0.050)
firm performance	-0.051	-0.054	-0.057	-0.054	0.147***	0.125***	0.122***	0.124***
	(0.040)	(0.039)	(0.039)	(0.039)	(0.046)	(0.046)	(0.044)	(0.046)
firm size	0.182***	0.179***	0.189***	0.178***	-0.048	-0.038	-0.028	-0.037
	(0.052)	(0.051)	(0.051)	(0.052)	(0.039)	(0.040)	(0.040)	(0.040)
firm leverage	0.037	0.039	0.038	0.036	-0.096	-0.072*	-0.074*	-0.069
	(0.043)	(0.042)	(0.042)	(0.042)	(0.043)	(0.042)	(0.042)	(0.043)
Manufacturing	-0.007	-0.012	-0.018	-0.015	0.469***	0.458***	0.452***	0.460***
	(0.044)	(0.046)	(0.046)	(0.046)	(0.043)	(0.044)	(0.043)	(0.044)
board size	0.178***	0.211***	0.210***	0.211***	-0.020	-0.050	-0.050	-0.050
	(0.044)	(0.048)	(0.047)	(0.048)	(0.046)	(0.048)	(0.047)	(0.049)
CEO tenure	0.046	0.050	0.047	0.049	0.018	0.035	0.032	0.036
	(0.052)	(0.053)	(0.053)	(0.053)	(0.044)	(0.045)	(0.045)	(0.045)
Year controlled	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	460	460	460	460	460	460	460	460
F-Stat	4.12***	3.77***	3.68***	3.66***	18.17***	22.67***	23.16***	21.67***
R2	0.0779	0.0904	0.1024	0.0921	0.2757	0.3093	0.3200	0.3110
Adj_R^2	0.0553	0.0619	0.0722	0.0615	0.2579	0.2876	0.2971	0.2878
Incre_R^2			0.012**	0.002			0.011***	0.002

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Hypotheses 4.4a and 4.4b address how geographical distance between the home country and target market affects the relationship between family involvement and internationalization in family firms. To test these, I divide the sample into two sub-samples of geographically close versus distant countries. Table 4.4 shows the results for geographically close regions on the left-hand side and distant regions on the right. For both subsets, a family board chair has a significant negative effect on family firm internationalization (both $p<0.05$), and similar economic significance. These results indicate that a family board chair is equally concerned about the loss of SEW regardless of geographical distance. In other words, concern over the loss of control is a strong obstacle to internationalization. However, the effect of multiple generational involvement on internationalization is only significant and positive for geographically distant regions ($p<0.01$). This confirms that the varying perspectives provided by multiple generations play an important role when family firms decide to expand to geographically distant regions. In short, Hypothesis 4.4a is rejected, while Hypothesis 4.4b is supported.

4.5 Discussion and Conclusion

Internationalization plays an important role in the continuous growth of family firms and the maintenance of their competitive advantage in today's ever-changing environment. Internationalization not only allows family firms to leverage opportunities in foreign markets but also provides opportunities to access knowledge in a large number of foreign markets. At the same time, internationalization involves risk taking and requires the investment of a large base of resources. Previous research has generated mixed findings regarding the effect of family involvement on internationalization, producing a lack of clarity about its precise effects.

This paper responds to the call by De Massis et al. (2014) to examine "ability" and "willingness" as conditions of family influence, using the presence of a family board chair and multiple generational involvement as two indicators of "willingness." From the perspectives of SEW preservation and resources, I examine the effects of these two dimensions of family involvement on internationalization both separately and through their interaction with board experience. Based on an analysis of S&P 500 firms, I find that the presence of a family board chair impedes family firm internationalization. This effect is likely due to the limited resources of a family board chair and the strong tendency to preserve SEW by not risking international engagement. This confirms the notion that family "willingness" is an important condition for understanding the family influence on firm behavior. In addition, this finding is inconsistent with Zahra's (2003) conclusion that CEO duality has a positive effect on internationalization. A possible explanation for this discrepancy between my findings is that the family board chair in the sample firms includes those who are also CEO and those who are not, whereas Zahra's study examines only the case where the board CEO is also the board chair. However, when board experience is taken into consideration, I find the negative effect of a family board chair is weakened. This confirms my prediction that an experienced board not only complements the resource constraints of a family board chair but also reduces uncertainty associated with internationalization and family concerns over loss of SEW, thus promoting internationalization.

My second main finding that involvement of multiple family generations in the business has a positive effect on internationalization is in line with previous research (Zahra, 2003), and further extends it by considering the effects of governance experience.

My finding confirms that the diverse perspectives of multiple generations in family firms are conducive to internationalization, and may reduce family concerns over the loss of SEW, making family firms more willing to take risks and engage in international activities. Further, the effect of multiple family generations is found to be consistent regardless of the level of board experience. A possible explanation for this is that younger family members may be more internationally oriented, helping them to leverage external resources for international activities. Where the firm lacks necessary resources for internationalization, younger generations may look outside the firm to obtain resources instead of relying on the board for advice. The third main finding, that the effect of multiple family generations is more pronounced when family firms internationalize to geographically distant regions, confirms that target market conditions are important factors to take into account when studying the effect of family involvement on internationalization.

This chapter makes several contributions to the family business literature. First, it confirms De Massis et al.'s (2014) notion that both "ability" and "willingness" are necessary conditions for family influence on firm behavior. Most current family business literature, including internationalization research, focuses on family involvement in firm behavior based on ownership and/or management (e.g. Crick, Bradshow, & Chaudry, 2006; Gomez-Mejia, Makri, & Kintana, 2010; Lian, Wang, & Cui, 2014; Thomas & Graves, 2005), without considering "willingness." According to De Massis et al. (2014) and Chrisman, Chua, Pearson, and Barnett (2012), "willingness" or the "family essence" must be considered together with "ability" to understand the influence of a family on firm behavior. Addressing either "ability" or "willingness" alone may partly explain the mixed

findings in the literature regarding family influence on firm internationalization. My analysis of 112 family firms, all of which met the "ability" condition via family involvement in the firm, shows different levels of international behavior depending on the "willingness" of the family firm, as measured by a family board chair and multiple family generations in the business. Thus, this chapter provides empirical evidence to support the importance of "ability" and "willingness," confirming the need to consider both to understand the influence of family on firm behavior.

Second, this chapter enhances our understanding of the heterogeneous behavior of family firms. The heterogeneity of family businesses has long been recognized in the family business literature (Chrisman, Chua, Steier, & Rau, 2012; Chrisman, Sharma, & Taggar, 2007; Melin & Nordqvist, 2007). In this chapter I not only analyze the individual and interactive effects of family involvement and board experience on internationalization, but also the effect of family involvement relative to the geographical distance of the markets. my finding that involving multiple family generations has a more pronounced effect on regions further from the home country confirms that target market conditions should be taken into account to understand the heterogeneous international behavior of family firms.

Third, my study extends our understanding of the antecedents of family firm internationalization, especially from the perspective of board chair identity and access to resources. Past literature has suggested the importance of the CEO-board chair duality in family firm internationalization (e.g. Barroso, Villegas, & Pérez-Calero, 2011; Hsu, Chen, & Cheng, 2013; Sanders & Carpenter, 1998), but how board experience and board chair identity affect family firm internationalization has remained unknown, despite

suggestions that owner identity may affect the time horizon, risk assessment, mitigation criteria, and expectations for firm strategy (David, O'Brien, Yoshikawa, & Delios, 2010; Thomsen & Pedersen, 2000). My finding that the presence of a family board chair impedes internationalization confirms the important role of board chair identity in family firm internationalization. My findings that multiple family generations and board experience contribute to internationalization confirm the role of the board and family members in providing resources for internationalization, and thus open avenues for future research into the effects of board composition and resource provision on the behavior of family firms. Chapter 4 also answers the call for more investigation of boards from the resource-based view of the firm (Jaskiewicz & Klein, 2007), and confirms the resource provision role of the boards in influencing a firm's strategic behavior, specifically internationalization.

This chapter has some limitations that suggest areas for future research. First, my empirical analysis verifies that overall board experience can complement the resource constraints of a family board chair and thus facilitate international behavior. This suggests the role of the board in providing resources for family firm internationalization. However, my analysis focuses on the general business knowledge possessed by the board. Previous literature suggests that knowledge can be categorized into breadth and depth dimensions (Bierly & Chakrabarti, 1996). Future research is recommended to include the effect of the depth dimension of board knowledge, especially in relation to international expansion, on family firm internationalization. Second, my analysis of target market conditions focuses on the geographic distance between home and foreign countries. Future research could consider more components of the distance between home

and target countries, for example, Ghemawat (2001) suggests dimensions of distance such as economic and formal versus informal institutional distance. Finally, given that my analysis is confined to U.S. publicly listed companies, my findings may not generalize to firms that are non-U.S.-based, or private, or non-listed public firms. I recommend that future research should investigate the internationalization of non-US family and private sector firms.

In conclusion, my findings have important implications for theory development in the field of family business. It not only suggests that the international behavior of family firms is determined by family "ability" and "willingness," but also highlights the important role of the board in resource provision for family firm internationalization. Further, it emphasizes the need for additional research on the source of family business internationalization, especially from the perspective of board resources.

Chapter 5 General Conclusion

In this dissertation, I explore several issues related to firm financing, governance and strategy within the framework of entrepreneurial finance and raise the potential avenues for future studies along the lines of these topics. In Chapter 2, I examine whether privately-held firms, facing a restricted external financing channel, are more likely to engage in earnings management to prevent debt covenant violation when they experience financial distress. In addition, I introduce the firm-level political affiliation into analysis since it can impact the new venture's incentive as well as the risk in involving the earnings manipulation. The effect of regional development, this macro-level factor, is also tested by using the three-way interaction technique as China is characterized by uneven economic and institutional development across its different regions (Brandt and Li, 2003). Our empirical findings do support the three-way interaction. In particular, only those privately-held firms with high level of political affiliation and located in less developed regions are less likely for earnings management. In contrast, other three groups will engage in earnings management to certain extents in order to ensure the future access to the credit. Thus, my study identifies the conditions for firms' likelihood of earnings manipulation and provides the practical implication for policy maker as well as the capital suppliers.

In Chapter 3, I look at microfinance institutions and investigate how female leadership within MFIs influences their pools of female clients and local entrepreneurship. By using the theory of homophily, I find that when more women serve as managers, board members, and/or loan officers, the MFIs increase their outreach to

women. Applying the institutional theory, I also analyze the relationship between MFI's outreach to female borrowers and entrepreneurship in this international setting, and highlight the moderating role played by legal environment in this relationship. Consistent with the hypothesis, I observe a positive relationship between female client outreach and entrepreneurship and the relationship is more pronounced in those countries with better legal environment.

In Chapter 4, I explore how the heterogeneities within family firms can influence their attitude towards international diversification. Specifically, I focus on two dimensions of the heterogeneities: family board chair and multiple generations involvement. Based on the behavior agency theory, I propose that family board chairs with their abilities in influencing strategic decision are against the international diversification to preserve the family socio-emotional wealth (SEW), a unique utility function of family members that is directly linked to family control of the firm, since international diversification requires external financing and weakens the family control. Besides, board chairs are perceived "the most important officer of the board" (Smith, 2000, p. 35) that can provide resource and experience for management team. But the restricted candidate pool of family members for board chair will have limited resources than those with an externally recruited chair. Therefore, we test whether the extant of other experienced board directors can alleviate the resource concern for family board chair. The empirical results provide support for my hypotheses related to family board chair. When there is multiple generations involvement, family firm are found to have long decision time horizon, desire for reputation building (Miller and Le Breton-Miller, 2006). My regression analysis reveals that family firms with multiple generations

involvement are more likely to engage in international diversification to lower their operation risk and expand family firms' repuation and social capital (Essen, Carney, Gedajlovic & Heugens, 2015; Zahra, 2003). Further, I observe that the influence of multiple family generations is more salient when internationalization involves geographically distant target markets, confirming the need to consider the target market environment when investigating the internationalization of family firms.

Bibliography

Agier, I., & Szafarz, A. (2013). Microfinance and gender: is there a glass ceiling on loan size? *World Development, 42*, 165-181.

Aidis, R., Estrin, S., & Mickiewicz, T. (2008). Institutions and entrepreneurship development in Russia: A comparative perspective. *Journal of Business Venturing, 23*, 656-672.

Al-Dajani, H., Carter, S., Shaw, E., & Marlow, S. (2015). Entrepreneurship among the displaced and dispossessed: Exploring the limits of emancipatory entrepreneuring. *British Journal of Management, 26*, 713-730.

Allen, F., Qian, J., & Qian, M. (2005). Law, finance, and economic growth in China. *Journal of Financial Economics,* 77 (1), 57-116.

Altman, E. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *Journal of Finance,* 23(4), 589-609.

Altman, E. (2005). An emerging market credit scoring system for corporate bonds. *Emerging Markets Review,* 6(4), 311-323.

Altman, E. (1983). *Corporate Financial Distress: A Complete Guide to Predicting, Avoiding and Dealing with Bankruptcy*. John Wiley & Sons, New York.

Amine, L.S., & Staub, K.M. (2009). Women entrepreneurs in sub-Saharan Africa: An institutional theory analysis from a social marketing point of view. *Entrepreneurship and Regional Development: An International Journal, 21*, 183-211.

Anderson, R.C.. & Reeb, D.M. (2003). Founding-family ownership, corporate diversification, and firm leverage. *Journal of Law and Economics,* 46(2), 653-684.

Arregle, J.L., Batjargal, B., Hitt, M.A., Webb, J.W., Miller, T., & Tsui, A.S. (2013). Family ties in entrepreneurs' social networks and new venture growth. *Entrepreneurship Theory and Practice, 39*(2), 313-344.

Arregle, J.L., Naldi, L., Nordqvist, M., & Hitt, M.A. (2012). Internationalization of family-controlled firms: a study of the effects of external involvement in governance. *Entrepreneurship Theory and Practice, 36*(6), 1115–1143.

Ault, J.K., & Spicer, A. (2014). The institutional context of poverty: State fragility as a predictor of cross-national variation in commercial microfinance lending. *Strategic Management Journal, 35*, 1818-1838.

Baland, J.M., Somanathan, R., & Wahhaj, Z. (2013). Repayment incentives and the distribution of gains from group lending. *Journal of Development Economics, 105*, 131-139.

Barber, B.M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *Quarterly journal of Economics, 116*, 261-292.

Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99-120.

Barney, J.B., Wright, M., & Ketchen, D.J. (2001). The resource-based view of the firm: ten years after 1991. *Journal of Management, 27*(6), 625-641.

Barroso, C., Villegas, M.M., & Perez-Calero, L. (2011). Board influence on a firm's internationalization. *Corporate Governance: An International Review, 19*(4), 351–367.

Baumol, W.J. (1996). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Business Venturing*, 11, 3-22.

Beatty, A., & Harris, D.G. (1999). The effects of taxes, agency costs and information asymmetry on earnings management: A comparison of public and private Firms. *Review of Accounting Studies,* 4(3), 299-326.

Beck, S., & Ogden, T. (2007). Beware of bad microcredit. *Harvard Business Review, 85*, 20-22.

Becker, G.S. (1973). A theory of marriage: Part I. *The Journal of Political Economy, 81*, 813-846.

Becker, L., DeFond, M., Jiambalvo, J., & Subramanyam, K. (1998). The effect of audit quality on earnings management. *Contemporary Accounting Research,* 15(1), 1-24.

Bellucci, A., Borisov, A., & Zazzaro, A. (2010). Does gender matter in bank–firm relationships? Evidence from small business lending. *Journal of Banking and Finance, 34*, 2968-2984.

Berger, A.N., & Udell, G.F. (1990). Collateral, loan quality and bank risk. *Journal of Monetary Economics, 25*, 21-42.

Berger, A.N., & Udell, G.F. (1995). Relationship lending and lines of credit in small firms finance. *Journal of Business, 68*, 351-381.

Bierly, P., & Chakrabarti, A. (1996). Generic knowledge strategies in the U.S. pharmaceutical industry. *Strategic Management Journal, 17*(2), 123-135.

Bloodgood, J.M., Sapienza, H.J., & Almeida, J.G. (1996). The internationalization of new high-potential U.S. ventures: antecedents and outcomes. *Entrepreneurship Theory and Practice,* 20(4), 61-76.

Boubakri, N., Cosset, J.C., & Saffar, W. (2008). Political connections of newly privatized firms. *Journal of Corporate Finance,* 14(5), 654-673.

Brandt, L., & Li, H. (2003). Bank discrimination in transition economies: Ideology, information or incentive? *Journal of Comparative Economics,* 31(3), 387-413.

Brau, J.C., & Woller, G.M. (2004). Microfinance: A comprehensive review of the existing literature. *Journal of Entrepreneurial Finance, 9*, 1-27.

Bruton, G.D., Ahlstrom, D., & Li, H. (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice, 34*, 421-440.

Bruton, G.D., Fried, V.H., & Manigart, S. (2005). Institutional influences on the worldwide expansion of venture capital. *Entrepreneurship Theory and Practice, 29*, 737-760.

Bruton, G.D., Khavul, S., Siegel, D., & Wright, M. (2015). New financial alternatives in seeding entrepreneurship: Microfinance, crowdfunding, and peer-to-peer innovations. *Entrepreneurship Theory and Practice, 39*, 9-26.

Bunderson, J.S., & Sutcliffe, K.M. (2002). Comparing alternative conceptualizations of functional diversity in management teams: process and performance effects. *Academy of management journal, 45*(5), 875-893.

Burgstahler, D., Hail, L., & Leuz, C. (2006). The importance of reporting incentives: earnings management in European private and public firms. *The Accounting Review,* 81(5), 983-1016.

BusinessWeek. (2003). Family Inc. November 10: 111-114.

Calabrò, A., Mussolino, D., & Huse, M. (2009). The role of board of directors in the internationalization process of small and medium sized family businesses. *International Journal of Globalisation and Small Business, 3*(4), 393-411.

Carney, M. (1998). A management capacity constraint? Obstacles to the development of the overseas Chinese family business. *Asia Pacific Journal of Management, 15*(2), 137–162.

Carter, S., & Rosa, P. (1998). The financing of male and female owned businesses. *Entrepreneurship and Regional Development, 10*, 225-241.

Casillas, J.C., & Moreno-Menéndez, A.M. (2014). Speed of the internationalization process: the role of diversity and depth in experiential learning. *Journal of International Business Studies, 45*(1), 85–101.

Chakrabarty, S., & Bass, A.E. (2014a). Institutionalizing ethics in institutional voids: Building positive ethical strength to serve women microfinance borrowers in negative contexts. *Journal of Business Ethics, 119*, 529-542.

Chakrabarty, S., & Bass, A.E. (2014b). Corporate governance in microfinance institutions: Board composition and the ability to face institutional voids. *Corporate Governance: An International Review, 22*, 367-386.

Chakravarty, S., & Shahriar, A.Z.M. (2015). Selection of borrowing partners in joint liability-based microcredit: Evidence from framed field experiments in Bangladesh. *Entrepreneurship Theory and Practice, 39*, 129-144.

Chan, K.H., Lin, K.Z. & Wong, B. (2010). The impact of government ownership and institutions on the reporting behavior of local auditors in China." *Journal of International Accounting Research,* 9(2), 1-20.

Chaney, P.K., Faccio, M., & Parsley, D. (2011). The quality of accounting information in politically connected firms. *Journal of Accounting and Economics,* 51(1-2), 58-76.

Charalambakis, E. (2014). On corporate financial distress prediction: What can we learn from private firms in a small open economy? *Working Paper.*

Charitou, A., Lambertides, N., & Trigeorgis, L. (2011). Distress risk, growth and earnings quality. *ABACUS,* 47(2), 158-181.

Chemmanur, T.J.,& Fulghieri, P. (2014). Entrepreneurial finance and innovation: An introduction and agenda for future research. *Review of Financial Studies,* 27(1), 1-19.

Chen, G.M., Firth, M., Gao, D.N., & Rui, O.M. (2006). Ownership structure, corporate governance, and fraud: Evidence from China**.** *Journal of Corporate Finance,* 12(3), 424-448.

Chen, H. (2011). Does board independence influence the top management team? Evidence from strategic decisions toward internationalization. *Corporate Governance: An International Review, 19*(4), 334-350.

Chen, Q., Hou, W., Li, W., Wilson, C., & Wu, Z. (2014). Family control, regulatory environment, and the growth of entrepreneurial firms: International evidence. *Corporate Governance: An International Review, 22*, 132-144.

Chen, Y.M., Liu, H.H., Ni, Y.T., & Wu, M.F. 2015. A rational normative model of international expansion: strategic intent perspective, market positions, and founder CEOs/family-successor CEOs. *Journal of Business Research, 68*(7), 1539-1543.

Cheng, P., Aerts, W., & Jorissen, A. (2010). Earnings management, asset restructuring, and the threat of exchange delisting in an earnings-based regulatory regime. *Corporate Governance: An International Review,* 18(5), 438-456.

Cheston, S., & Kuhn, L. (2002). Empowering women through microfinance. In S. Daley-Harris(eds.), Pathways Out of Poverty: Innovations in Microfinance for the Poorest Families, pp.167-228. Kumarian Press, Bloomfield.

Chrisman, J.J., & Patel, P. (2012). Variations in R&D investments of family and nonfamily firms: behavioral agency and myopic loss aversion perspectives. *Academy of Management Journal, 55*(4), 976–997.

Chrisman, J.J., Chua, J.H., Pearson, A.W., & Barnett, T. (2012). Family involvement, family influence, and family-centered non-economic goals in small firms. *Entrepreneurship Theory and Practice, 36*(2), 267–293.

Chrisman, J.J., Memili, E., & Misra, K. (2013). Nonfamily managers, family firms, and the winner's curse: the influence of noneconomic goals and bounded rationality. *Entrepreneurship Theory and Practice, 38*(5), 1103-1127.

Chrisman, J.J., Sharma, P., & Taggar, S. (2007). Family influences on firms: an introduction. *Journal of Business Research, 60*(10), 1005-1011.

Chua, J.H., Chrisman, J.J., Kellermanns, F., & Wu, Z. (2011). Family involvement and new venture debt financing. *Journal of Business Venturing, 26*, 472-488.

Crick, D., Bradshow, R., & Chaudry, S. (2006). ‘‘Successful’’ internationalizing UK family and non-family-owned firms: a comparative study. *Journal of Small Business and Enterprise Development, 13*(4), 498–510.

Cull, R., Demirguc-Kunt, A., & Morduch, J. (2007). Financial performance and outreach: A global analysis of leading microbanks. *Economic Journal, 117*, 107-133.

Cull, R., Demirguc-Kunt, A., & Morduch, J. (2009). Microfinance meets the market. *Journal of Economic Perspective, 23*, 167-192.

Cumming, D., & Li, D. (2013). Public policy, entrepreneurship, and venture capital in the United States. *Journal of Corporate Finance, 23*, 345-367.

Currarini, S., Jackson, M.O., & Pin, P. (2009). An economic model of friendship: Homophily, minorities, and segregation. *Econometrica, 77*, 1003-1045.

Dalton, D.R., Daily, C.M., Ellstrand, A.E., & Johnson, J.L. (1998). Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic management journal, 19*(3), 269-290.

David, P., O’brien, J.P., Yoshikawa, T., & Delios, A. (2010). Do shareholders or stakeholders appropriate the rents from corporate diversification? The influence of ownership structure. *Academy of Management Journal, 53*(3), 636–654.

Davis, G.W. (1992). Trustees and governing boards. In G. B. Vaughan (Ed.), *Dilemmas of leadership: Decision making and ethics in the community college* (pp. 146-168), Jossey-Bass, San Francisco.

Davis, J.H., Schoorman, F.D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review,* 22(1), 20–47.

Dawson, J.F., & Richter, A.W. (2006). Probing three-way interactions in moderated multiple regression: Development and application of a slope difference test. *Journal of Applied Psychology,* 91(4), 917-926.

De Massis, A., Kotlar, J., Chua, J.H., & Chrisman, J.J. (2014). Ability and willingness as sufficiency conditions for family-oriented particularistic behavior: implications for theory and empirical studies. *Journal of Small Business Management,* 52(2), 344-364.

DeAngelo, H., & DeAngelo, L. (1991). Union negotiations and corporate policy: A study of labor concessions in the domestic steel industry during the 1980s. *Journal of Financial Economics,* 30(1), 3-43.

DeCarlo, J.F., & Lyons, P.R. (1979). A comparison of selected personal characteristics of minority and non-minority female entrepreneurs. *Journal of Small Business Management, 17*, 22-29.

Dechow, P.M., Sloan, R.G. & Sweeny, A.P. (1995). Detecting earnings management. *The Accounting Review,* 70(2), 193-225.

Dellien, H., Burnett, J., Gincherman, A., & Lynch, E. (2005). Product diversification in microfinance: Introducing individual lending. Women's World Banking.

Retrieved from http://www.womensworldbanking.org/publications/product-diversification-microfinance-introducing-individual-lending/

Demurger, S. (2001). Infrastructure development and economic growth: An explanation for regional disparities in China. *Journal of Comparative Economics,* 29(1), 95-117.

Ding, R., Li, J., & Wu, Z. (2016). Government affiliation, earnings management, and firm performance: The case of privately held firms. *Working Paper*.

Ding, S., Jia, C., Qu, B. & Wu, Z. (2015). Corporate risk-taking: Exploring the effects of government affiliation and executives' incentives. *Journal of Business Research,* 68(6), 1196-1204.

Ding, S., Liu, M., & Wu, Z. (2016). Financial reporting quality and external debt financing constraints: The case of privately held Firms. *ABACUS*, 52(3), 351-373.

Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *Quarterly Journal of Economics, 117*, 1-37.

Eddleston, K.A., & Kellermanns, F.W. (2007). Destructive and productive family relationships: a stewardship theory perspective. *Journal of Business Venturing,* 22(4), 545–565.

Eriksson, K., Johanson, J., Majkgard, A., & Sharma, D.D. (1997). Experiential knowledge and cost in the internationalization process. *Journal of international business studies,* 28(2), 337-360.

Essen, M.V., Carney, M., Gedajlovic, E., & Heugens, P.P.M.A.R. (2015). How does family control influence firm strategy and performance? A meta-analysis of US

publicly listed firms. *Corporate Governance: An International Review, 23*(1), 3-24.

Estrin, S., & Mickiewicz, T. (2009). Do institutions have a greater effect on female entrepreneurs? *Working paper*.

Faccio, M. (2006). Politically connected firms. *American Economic Review,* 96(1), 369-386.

Faccio, M. (2010). Differences between politically connected and non-connected firms: cross country analysis. *Financial Management,* 39(3), 905-927.

Faccio, M., Masulis, R.W., & McConnell, J.J. (2006). Political connections and corporate bailouts. *Journal of Finance,* 6(6), 2597-2635.

Fan, G., & Wang, X. (2001). *NERI Index of Marketization of China' Provinces 2000 Report*. The Economic Science Press (in Chinese), Beijing.

Fan, G., Wang, X., & Zhu, H. (2011). *NERI Index of Marketization of China' Provinces 2011 Repor*t. The Economic Science Press (in Chinese), Beijing.

Fan, J.P.H., Wong, T.J., & Zhang, T. (2007). Politically connected CEOs, corporate governance and post-IPO performance of China's newly partially privatized firms. *Journal of Financial Economics,* 84(2), 330-357.

Fay, M., & Williams, L. (1993). Gender bias and the availability of business loans. *Journal of Business Venturing, 8*, 363-376.

Fernández, Z., & Nieto, M.J. (2005). Internationalization strategy of small and medium-sized family businesses: Some influential factors. *Family Business Review,* 18(1), 77-89.

Field, E., Pande, R., Papp, J., & Rigol, N. (2013). Does the classic microfinance model discourage entrepreneurship among the poor? Experimental evidence from India. *The American Economic Review, 103*, 2196-2226.

Flippen, A.R., Harvey A.H., William E.S., & Eben A.W. (1996). A Comparison of similarity and interdependence as triggers for in-group formation. *Personality and Social Psychology Bulletin, 22*, 882–93.

Friedman, B.A. (2011). The Relationship between governance effectiveness and entrepreneurship. *International Journal of Humanities and Social Science, 5*, 221-225.

Galak, J., Small, D., & Stephen, A.T. (2011). Microfinance decision making: A field study of prosocial lending. *Journal of Marketing Research, 48*, 130-137.

Galema, R., Lensink, R., & Mersland, R. (2012). Do powerful CEOs determine microfinance performance? *Journal of Management Studies, 49*, 718-742.

Garmaise, M.J., & Natividad, G. (2013). Cheap credit, lending operations and international politics: The case of global microfinance. *Journal of Finance, 68*, 1551-1576.

Ghemawat, P. (2001). Distance still matters: the hard reality of global expansion. *Harvard Business Review,* 79(8), 137– 147.

Gilson, S. (1989). Management turnover and financial distress. *Journal of Financial Economics,* 25(2), 241-262.

Goerzen, A., & Beamish, P.W. (2003). Geographic scope and multinational enterprise performance. *Strategic Management Journal, 24*(13), 1289–1306.

Gomez-Mejia, L.R., Cruz, C., Berrone, P., & De Castro, J. (2011). The bind that ties: socioemotional wealth preservation in family firms. *The Academy of Management Annals,* 5(1), 653–707.

Gomez-Mejia, L.R., Haynes, K.T., Nunez-Nickel, M., Jacobson, K., & Moyano-Fuentes, J. (2007). Socioemotional wealth and business risks in family-controlled firms: evidence from Spanish olive oil mills. *Administrative Science Quarterly,* 52(1), 106–137.

Gomez-Mejia, L.R., Makri, M., & Kintana, M.L. (2010). Diversification decisions in family-controlled firms. *Journal of Management Studies,* 47(2), 223-252.

Graves, C., & Thomas, J. (2006). Internationalization of Australian family businesses: a managerial capabilities perspective. *Family Business Review*, 19(3), 207-224.

Grégoire, D.A., Corbett, A.C., & McMullen, J.S. (2011). The cognitive perspective in entrepreneurship: An agenda for future research. *Journal of Management Studies, 48*, 1443-1477.

Habbershon, T.G., Williams, M., & MacMillan, I.C. (2003). A unified systems perspective of family firm performance. *Journal of Business Venturing,* 18(4), 451-465.

Hampton. K.N., & Wellman, B. (2000). Examining community in the digital neighborhood: Early results from Canada's wired suburb. In T. Ishida & K. Isbister (eds.), In Digital Cities: Technologies, Experiences and Future Perspectives, pp. 194–208. Springer-Verlag, Heidelberg.

Harrison, R.T., & Mason, C.M. (2007). Does gender matter? Women business angels and the supply of entrepreneurial finance. *Entrepreneurship Theory and Practice, 31*, 445-472.

Hartarska, V. (2005). Governance and performance of microfinance institutions in central and eastern Europe and the newly independent states. *World Development, 33*, 1627-1643.

Haunschild, P.R., & Beckman, C.M. (1998). When do interlocks matter? Alternate sources of information and interlock influence. *Administrative Science Quarterly,* 43(4), 815–844.

Hennart, J.F. (1982). *A Theory of Multinational Enterprise*. Michigan: University of Michigan Press

Hillman, A., & Dalziel, T. (2003). Boards of directors and firm performance: integrating agency and resource-dependence perspectives. *Academy of Management Review,* 28(3), 383–396.

Hitt, M.A., Hoskisson, R.E., & Kim, H. (1997). International diversification: effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal,* 40(4), 767–798.

Hitt, M.A., Uhlenbruck, K., & Shimizu, K. (2006). The importance of resources in the internationalization of professional service firms: the good the bad and the ugly. *Academy of Management Executive,* 49(6), 1137-1157.

Hofstede, G. (1980). Motivation, leadership, and organization: do American theories apply abroad? *Organizational Dynamics,* 9(1), 42-63.

Hoskisson, R.E., Covin, J., Volberda, H.W., & Johnson, R.A. (2011). Revitalizing entrepreneurship: The search for new research opportunities. *Journal of Management Studies, 48*, 1141-1168.

Houston, J.F., Jiang, L.L., Lin, C., & Ma, Y. (2014). Political connections and the cost of bank loans. *Journal of Accounting Research*, 52(1), 193-243.

Hsu, L.C., & Chang, H.C. (2011). The role of behavioral strategic controls in family firm innovation. *Industry and Innovation,* 18(7), 709–727.

Hsu, W.T., Chen, H.L., & Cheng, C.Y. (2013). Internationalization and firm performance of SMEs: the moderating effects of CEO attributes. *Journal of World Business,* 48(1), 1-12.

Hubka, A., & Zaidi, R. (2005). Impact of Government Regulation on Microfinance. World Bank, Washington.

Hudon, M. (2010). Management of microfinance institutions: Do subsidies matter? *Journal of International Development, 22*, 890-905.

Ibrahim, B. (1989). Policies affecting women's employment in the formal sector: Strategies for change. *World Development, 17*, 1097-1107.

Jackowicz, K., Kozłowski, L. & Mielcarz, P. (2014). Political connections and operational performance of non-financial firms: New evidence from Poland. *Emerging Markets Review,* 20, 109-135.

Jaffe, A.B., Trajtenberg, M., & Henderson, R. (1993). Geographic localization of knowledge spillovers. *Quarterly Journal of Economics,* 108(3), 577-598.

Jaggi, B., & Lee, P. (2002). Earnings management response to debt covenant violations and debt restructuring. *Journal of Accounting, Auditing and Finance,* 17(4), 295-324.

Jaskiewicz, P., & Klein, S. (2007). The impact of goal alignment on board composition and board size in family businesses. *Journal of Business research,* 60(10), 1080-1089.

Jenkins, D.S., Kane, G.D., & Velury, U. (2006). Earning quality decline and the effect of industry specialist auditors: An analysis of the late 1990s." *Journal of Accounting and Public Policy,* 25(1), 71-90.

Jensen, M.C., & Meckling, W.H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics,* 3(4), 305–360.

Jianakopolos, N.A., & Bernasek, A. (1998). Are women more risk averse? *Economic Inquiry, 36*, 620-630.

Johnson, J.L., Daily, C.M., & Ellstrand, A.E. (1996). Boards of directors: A review and research agenda. *Journal of management,* 22(3), 409-438.

Jones, C.D., Makri, M., & Gomez-Mejia, L.R. (2008). Affiliate directors and perceived risk bearing in publicly traded, family-controlled firms: the case of diversification. *Entrepreneurship Theory and Practice,* 32(6), 1007-1026.

Judge, W.Q., Witt, M.A., Zattoni, A., Talaulicar, T., Chen, J., Lewellyn, K., Hu, H.W., Shukla, D., Bell, R.G., Gabrielsson, J., Lopez, F., Yamak, S., Fassin, Y., McCarthy, D., Rivas, J.L., Fainshmidt, S., & Van Ees, H. (2015). Corporate

governance and IPO underpricing in a cross-national sample: a multilevel knowledge-based view. *Strategic Management Journal,* 36(8), 1174-1185.

Jütting, J., Morrisson, C., Dayton-Johnson, J., & Drechsler, D. (2006). Measuring gender inequality. *Working paper*.

Kalmijn, M. (1998). Intermarriage and homogamy: Causes, patterns and trends. *Annual Review of Sociology, 24,* 395–421.

Kato, K., & Long, C. (2006). Executive turnover and firm performance in china. *American Economic Review,* 96(2), 363-367.

Kellermanns, F.W., Eddleston, K.A., Barnett, T., & Pearson, A. (2008). An exploratory study of family member characteristics and involvement: effects on entrepreneurial behavior in the family firm. *Family Business Review,* 21(1), 1-14.

Kelly, D.J., Brush, C.G., Greene, P.G., & Litovsky, Y. (2013). Global Entrepreneurship Monitor: 2012 Women's Report. Babson College, Wellesley. Retrieved from http://www.gemconsortium.org/docs/2825/gem-2012-womens-report.

Khavul, S. (2010). Microfinance: Creating opportunities for the poor? *Academy of Management Perspectives, 24*, 58-72.

Khavul, S., Bruton, G.D., & Wood, E. (2009). Informal family business in Africa. *Entrepreneurship Theory and Practice, 33*, 1219-1238.

Kim, Y.J. (2009). Choosing between international technology licensing partners: an empirical analysis of U.S. biotechnology firms. *Journal of Engineering and Technology Management,* 26(1-2), 57–72.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science,* 3(3), 383-397.

Kyereboah-Coleman, A. (2007). The impact of capital structure on the performance of Microfinance institutions. *The Journal of Risk Finance, 8*, 56-71.

Labie, M., & Mersland, R. (2011). Corporate governance challenges in microfinance. In B. Armendariz & M. Labie (eds), The Handbook of Microfinance, pp 283-300. World Scientific Publishing, London.

Laffan, B. (2001). The European Union polity: a union of regulative, normative and cognitive pillars. *Journal of European Public Policy, 8*, 709-727.

Lang, M., Raedy, J. & Yetman, M. (2003). How representative are firms that are cross listed in the United States? An analysis of accounting quality. *Journal of Accounting Research,* 41(2), 363–386.

Lang, M., Raedy, J., & Wilson, W. (2006). Earnings management and cross listing: Are reconciled earnings comparable to US earnings? *Journal of Accounting and Economics,* 42(1-2), 255–283.

Lansberg, I. (1999). *Succeeding generations: Realizing the dream of families in business*. Boston: Harvard Business School Press.

Lazarsfeld, P.F., & Merton, R.K. (1954). Friendship as a social process: a substantive and methodological analysis. In M. Berger, T. Abel & C. Page (eds.), In Freedom and Control in Modern Society, pp. 18–66. Van Nostrand, New York.

Le Breton-Miller, I., Miller, D., & Lester, R.H. (2011). Stewardship or agency? A social embeddedness reconciliation of conduct and performance in public family businesses. *Organization Science,* 22(3), 704-721.

Lee, L.F. (2012). Incentives to inflate reported cash from operations using classification and timing. *The Accounting Review,* 87(1), 1-33.

Leitterstorf, M., & Rau, S. (2014). Socioemotional wealth and IPO underpricing of family firms. *Strategic Management Journal,* 35(5), 751-760.

Leuz, C., & Oberholzer-Gee, F. (2006). Political relationships, global financing, and corporate transparency: Evidence from Indonesia. *Journal of Financial Economics,* 81(2), 411-439.

Liang, X., Wang, L., & Cui, Z. (2014). Chinese private firms and internationalization: effects of family involvement in management and family ownership. *Family Business Review,* 27(2), 126-141.

Lin, C., Ma, Y., & Su, D. (2009). Corporate governance and firm efficiency: Evidence from China's publicly listed firms. *Managerial and Decision Economics,* 30(3), 193-209

Liu. M., & Magnan, M. (2016). Conditional conservatism and the yield spread of corporate bond issues. *Review of Quantitative Finance and Accounting,* 46(4), 847-879.

Liu. M., Shi, Y., Wilson, C., & Wu, Z. (2017). Does family involvement explain why corporate social responsibility affects earnings management? *Journal of Business Research, 75, 8-16*.

Lu, J.W., & Beamish, P.W. (2001). The internationalization and performance of SMEs. *Strategic management journal,* 22(6-7), 565-586.

Madhok, A. (1997). Cost, value and foreign market entry mode: the transaction and the firm. *Strategic management journal,* 18(1), 39-61.

Manolova, T.S., Eunni, R.V., & Gyoshev, B.S. (2008). Institutional environments for entrepreneurship: Evidence from emerging economies in eastern Europe. *Entrepreneurship Theory and Practice, 32*, 203-218.

Marlow, S., & Patton, D. (2005). All credit to men? Entrepreneurship, finance and gender. *Entrepreneurship Theory and Practice, 29*, 717-735.

Marsden, P.V. (1987). Core discussion networks of Americans. *American Sociological. Review, 52*, 122–313.

McPherson, M., Smith-Lovin, L., & Cook, J.M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology, 27*, 415-444.

Melin, L., & Nordqvist, M. (2007). The reflexive dynamics of institutionalization: the case of the family business. *Strategic Organization,* 5(3), 321–333.

Mersland, R., & Strøm, R.Ø. (2009). Performance and governance in microfinance institutions. *Journal of Banking and Finance, 33*, 662-669.

Miller, D., & Le Breton-Miller, I. (2006). Family governance and firm performance: agency, stewardship, and capabilities. *Family Business Review,* 19(1), 73-87.

Miller, D., Le Breton-Miller, I., Minichilli, A., Corbetta, G., & Pittino, D. (2014). When do non-family CEOs outperform in family firms? Agency and behavioral agency perspectives. *Journal of Management Studies,* 51(4), 547-572.

Minniti, M., & Levesque, M. (2008). Recent developments in the economics of entrepreneurship. *Journal of Business Venturing, 23*, 603-612.

Minniti, M., & Naudé, W. (2010). What do we know about the patterns and determinants of female entrepreneurship across countries? *European Journal of Development Research, 22,* 277-293.

Minniti, M., Allen, E., & Langowitz, N. (2006). The 2005 Global Entrepreneurship Monitor special topic report: Women in entrepreneurship. Babson College, Boston. Retrieved from: http://www.gemconsortium.org/docs/download/280.

Mitter, C., Duller, C., Feldbauer-Durstmuller, B., & Kraus, S. (2014). Internationalization of family firms: the effect of ownership and governance. *Review of Managerial Science,* 8(1), 1-28.

Morduch, J. (1999). The role of subsidies in microfinance: evidence from the Grameen Bank. *Journal of Development Economics, 60*, 229-248.

Moss, T.W., Neubaum, D.O., & Moriah, M. (2015). The effect of virtuous and entrepreneurial orientations on microfinance lending and repayment: A signaling theory perspective. *Entrepreneurship Theory and Practice, 39*, 27-52.

Navajas, S., Schreiner, M., Meyer, R.L., Gonzalez-vega, C., & Rodriguez-meza, J. (2000). Microcredit and the poorest of the poor: Theory and evidence from Bolivia. *World Development, 28,* 333-346.

Neter, J., Kutner, M.H., Nachtsheim, C.J., & Wasserman, W. (1996). *Applied Linear Regression Models*. Boston: Irwin Press.

Park, S.C. (2016). Family firms and the "willing successor" problem. *Entrepreneurship Theory and Practice,* 40(6), 1241-1259.

Patel, P.C., & Chrisman, J. (2013). Risk abatement as a strategy for R&D investments in family firms. *Strategic Management Journal,* 35(4), 617-627.

Peng, M.W. (2001). The resource-based view and international business. *Journal of Management,* 27(6), 803-829.

Perrault, E. (2015). Why does board gender diversity matter and how do we get there? The role of shareholder activism in deinstitutionalizing old boys' networks. *Journal of Business Ethics, 128,* 149-165.

Petersen, M.A. (2009). Estimating standard errors in finance panel data sets: Comparing approaches. *Review of Financial Studies, 22*, 435-480.

Phan, P.H., (2009). Entrepreneurship and microfinance: A review and research agenda. *Working paper*. Retrieved from https://jscholarship.library.jhu.edu/bitstream/handle/1774.2/33619/microfinance%20PHAN.pdf

Pitt, M.M., & Khandker, S.R. (1998). The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter? *The Journal of Political Economy, 106*, 958-996.

Pukall, T.J., & Calabrò, A. (2013). The internationalization of family firms: a critical review and integrative model. *Family business review,* 27(2), 103-125.

Rahman, A. (1999). Micro-credit initiatives for equitable and sustainable development: Who pays? *World Development, 27*, 67-82.

Randøy T., Strøm, R.Ø., & Mersland, R. (2015). The impact of entrepreneur-CEOs in microfinance institutions: A global survey. *Entrepreneurship Theory and Practice, 39*, 927-953.

Rogers, J., & Stocken, P. (2005). Credibility of management forecasts. *The Accounting Review,* 80(4), 1233-1260.

Roy, W.G. (1997). Socializing capital: The rise of the large industrial corporation in America. Princeton University Press, Princeton.

Sanchez-Bueno, M.J., & Usero, B. (2014). How may the nature of family firms explain the decisions concerning international diversification? *Journal of Business Research,* 67(7), 1311-1320.

Sanders, G., & Carpenter, M.A. (1998). Internationalization and firm governance: the roles of CEO compensation, top team composition, and board structure. *The Academy of Management Journal,* 41(2), 158-178.

Sanyal, P. (2009). From credit to collective action: The hole of microfinance in promoting women's social capital and normative influence. *American Sociological Review, 74*, 529-550.

Sarasvathy, S.D., Menon, A.R., & Kuechle, G. (2013). Failing firms and successful entrepreneurs: serial entrepreneurship as a temporal portfolio. *Small Business Economics,* 40, 417-434.

Schreiner, M. (2002). Aspect of outreach: A framework for discussion of the social benefits of microfinance. *Journal of International Development, 14*, 591-603.

Schulze, W.S., Lubatkin, M.H., Dino, R.N., & Buchholtz, A.K. (2001). Agency relationships in family firms: theory and evidence. *Organization Science,* 12(2), 99-116.

Scott, W.R. (2007). *Institutions and organizations: Ideas and interests*. Sage Publications, Thousand Oaks.

Simons, T., Pelled, L.H., & Smith, K.A. (1999). Making use of difference: diversity, debate, and decision comprehensiveness in top management teams. *Academy of Management Journal,* 42(6), 662–673.

Singh, S., Darwish, T.K., & Anderson, N. (2012). Strategic intent, high-performance HRM, and the role of the HR director: an investigation into attitudes and practices in the country of Jordan. *The International Journal of Human Resource Management,* 23(14), 3027–3044.

Sirmon, D.G., & Hitt, M.A. (2003). Managing resources: linking unique resources, management, and wealth creation in family firms. *Entrepreneurship Theory and Practice,* 27(4), 339-358.

Smith, C.J. (2000). *Trusteeship in community colleges: A guide for effective governance*. Washington, DC: Association of Community College Trustees.

Sorenson, O., & Stuart, T.E. (2001). Syndication networks and the spatial distribution of venture capital investments. *American Journal of Sociology,* 106(6), 1546-1588.

Sun, S.L., & Lm, J. (2015). Cutting microfinance interest rates: An opportunity co-creation perspective. *Entrepreneurship Theory and Practice, 39*, 101-128.

Sweeny, A.P. (1994). Debt-covenant violations and managers' accounting responses. *Journal of Accounting and Economics,* 17(3), 281-308.

Terjesen, S., Sealy, R., & Singh, V. (2009). Women directors on corporate boards: A review and research agenda. *Corporate Governance: An International Review, 17*, 320-337.

Tervo, H. (2006). Regional unemployment, self-employment and family background. *Applied Economics, 38,* 1055-1062.

Thomsen, S., & Pedersen, T. (2000). Ownership structure and economic performance in the largest European companies. *Strategic Management Journal,* 21(6), 689-705.

Thornhill, S., & Amit, R. (2003). Learning from failure: Bankruptcy, firm age and the resource-based view. *Organization Science, 14,* 497-509.

Tirapat, S., & Nittayagasetwat, A. (1999). An investigation of Thai listed firms' financial distress using macro and micro variables. *Multinational Finance Journal,* 3(2), 103-126.

Tokarczyk, J., Hansen, E., Green, M., & Down, J. (2007). A resource-based view and market orientation theory examination of the role of "familiness" in family business success. *Family Business Review,* 20(1), 17-31.

Van Kranenburg, H., Hagedoorn, J., & Lorenz-Orlean, S. (2014). Distance costs and the degree of inter-partner involvement in international relational-based technology alliances. *Global Strategy Journal,* 4(4), 280-291.

Verbrugge, L.M. (1977). The structure of adult friendship choices. *Social Forces, 56*, 576–97.

Verbrugge, L.M. (1983). A research note on adult friendship contact: A dyadic perspective. *Social Forces, 62*, 78–83.

Wang, D. (2006). Founding family ownership and earnings quality. *Journal of Accounting Research,* 44(3), 619–656.

Wang, Q., Wong, T.J. & Xia, L. (2008). State ownership, the institutional environment, and auditor choice: Evidence from China. *Journal of Accounting and Economics,* 46(1), 112-134.

Wu, Y. (2011). Momentum trading, mean reversal and overreaction in Chinese stock market. *Review of Quantitative Finance and Accounting,* 37(3), 301-323.

You, J.X., & Du, G.Q. (2012). Are political connections a blessing or a curse? Evidence from CEO turnover in China. *Corporate Governance: An International Review,* 20(2), 179-194.

Zahra, S.A. (2003). International expansion of U.S. manufacturing family businesses: the effect of ownership and involvement. *Journal of Business Venturing,* 18(4), 495-512.

Zahra, S.A. (2014). Public and corporate governance and young global entrepreneurial firms. *Corporate Governance: An International Review, 22*, 77-83.

Zahra, S.A., & Filatotchev, I. (2004). Governance of the entrepreneurial threshold firm: a knowledge-based perspective. Journal of Management Studies, 41(5), 885-897.

Zahra, S.A., Ireland, R.D., & Hitt, M.A. (2000). International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management journal,* 43(5), 925-950.

Zahra, S.A., Neubaum, D.O., & Huse, M. (1997). The effect of the environment on export performance among telecommunications new ventures. *Entrepreneurship Theory and Practice,* 22(1), 25–46.

Zahra, S.A., Neubaum, D.O., & Larrañeta, B. (2007). Knowledge sharing and technological capabilities: The moderating role of family involvement. *Journal of Business Research,* 60(10), 1070-1079.

Zahra, S.A., & Wright, M. (2016). Understanding the social role of entrepreneurship. *Journal of Management Studies, 53*, 610-629.

Zhu, D.H. & Chen, G. (2014). Narcissism, director selection, and risk-taking spending. *Strategic Management Journal,* 36(13), 2075-2098.