EXTERNAL IDENTITIES OF DIRECTORS, BOARD FUNCTIONS AND FIRM PERFORMANCE

SHANG JING

(Bachelor of Management)

A THESIS SUBMITTED

FOR THE DEGREE OF MASTER OF SCIENCE (BUSINESS)

DEPARTMENT OF BUSINESS POLICY

NATIONAL UNIVERSITY OF SINGAPORE

2009

ACKNOWLEDGEMENTS

I would like to express my heartfelt gratitude to my supervisor, Dr. Kim Young-Choon. Without his expertise, constant guidance and encouragement, this thesis would not have been possible.

I am deeply grateful to Dr. Jane Lu for helping me and supporting me through these tough times. In addition, I would like to thank my previous mentor, Dr. Kim Chi Wakefield Trinh for her guidance throughout the last one year. Also, I would like to express my thanks to Dr. Chung Chi-Nien and Dr. Lu Xiaohui. Their insightful advices had aided me in my research tremendously.

Lastly, my utmost appreciation goes to my parents. I would not have completed this thesis if not for their encouragement and understanding.

TABLE OF CONTENTS

SUMMARY

Using identity theory, this paper focuses on examining the relationship between directors' external and internal identities and how these identities can shape directors' monitoring and resource provision behaviors. Directors' monitoring and resource provision behaviors will eventually affect the firm performance. The external identity of a director can be defined as the professional position that the director is concurrently holding in another organization. The internal identity is defined as being a board director in a focal firm. Building on identity theory, I argue that when the external identity conflicts with the internal identity, this conflict will assuage the director's motivation to monitor and provide resources. However, when the external identity is consistent with the internal identity, this consistency will motivate the director to engage in monitoring and resource providing behaviors. These behaviors will eventually have a positive impact on firm performance.

Using data from 1100 Chinese firms listed on both Shanghai and Shenzhen Stock Exchanges in 2006, I found that directors whose external identities are directors on other boards, managers of other companies and government officers or members of national people's congress will positively influence the focal firm performance. These results suggested that these three types of external identities are consistent with the internal identity of being a board director and will contribute positively to the firm performance by providing effective monitoring and resource provision behaviors. However, directors with external identity of being employees of financial institutions do not necessarily improve focal firm performance.

Moreover, prior performance of the firm will have a positive moderating effect on the relationship between the proportion of directors with external identities as employees of financial institutions and firm performance measured by return on sales. Prior performance of the firm will also moderate the relationship between the proportion of directors with external identity of being government officers or members of national people's congress and firm performance measured by return on sales.

This paper contributes to corporate governance research on the relationship between board directors and firm performance by considering individual differences among board directors. Individual differences among board directors were not previously captured by agency theory and resource dependence theory, the two classical theories used in previous research on corporate governance. Furthermore, this study advances the literature by empirically testing the relationship between identities of directors and firm performance. In addition, it provides practical implications such as the appointment of board directors.

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1 INTRODUCTION

1.1 Introduction

The relationship between board directors and firm performance has attracted much attention among scholars (Daily, Dalton & Cannella, 2003). There are two main theoretical perspectives dominating the literature on this topic: agency theory and resource dependence theory (Daily *et al.*, 2003). Agency theory suggested that the separation of ownership from control may lead to opportunistic behaviors among managers. These opportunistic behaviors will hurt the interests of shareholders (Fama & Jensen, 1983). As representatives of shareholders, board directors play an important role in monitoring managerial behaviors so as to ensure the maximization of shareholders' wealth (Mizruchi, 1983; Zahra & Pearce, 1989; Shleifer & Vishny, 1997). Resource dependence theory considers board directors, especially outside directors as organization boundary spanners, having access to external resources (Pfeffer & Salancik, 1978). The former theory emphasizes the monitoring function of board directors, while the later focuses on resource provision function.

Although both theories provided excellent theoretical arguments on the relationship between directors and firm performance, there are no conclusive results in empirical analyses (Dalton, Daily, Ellstrand & Johnson, 1998). For example, the literature review by Zahra and Pearce (1989) suggested that there are no conclusive results for the relationship between board directors and firm performance. They suggested that board directors play the role of providing valuable services to corporate strategies, rather than providing managerial control. Dalton, Daily, Ellstrand and Johnson (1998) conducted meta-analytic reviews to investigate the same set of relationship and had found little systematic linkage between directors and performance. However, researchers had obtained some insightful results when they distinguished the empirical contexts into studies conducted in developed and emerging economies. Though insightful, findings are still inconsistent.

In developed economies like United States, board composition such as board size and representation of outsiders was found to be positively related to performance in Fortune 500 corporations (Pearce & Zahra, 1992). These results were marginally supported in 100 fast growing U.S. small companies (Daily & Dalton, 1992). However, such results were not replicated in an emerging economy such as China. In his work, Peng (2004) did not find any significant relationship between directors and performance in large Chinese state-owned enterprises (SOEs).

An overwhelming amount of empirical studies had focused on either board composition (e.g., insider/outsider) or a specific institutional context. Both research streams had assumed homogeneity among directors (e.g., outside directors) when investigating the relationship between board directors and firm performance. These studies had largely ignored individual characteristics of directors that may generate conflict of interest among them. Also, there is a lack of comprehensive studies on individual differences among board directors. A study of this nature will further our understanding of how board composition determines board functions and eventually affects firm performance.

1.2 Motivation

Other than being board directors in a firm, most directors will concurrently hold positions in other organizations, such as being directors on other boards, being top mangers for other companies or are professionals such as bankers, professors, lawyers, auditors and so forth. If the role of being a board director can be considered as the internal role, other professional positions concurrently held by the director can be considered as an external role. From the focal firm's perspective, a firm will hire directors with different external affiliations for diversification purposes. For example, for the purpose of financing, firms will hire board directors who are working in financial institutions (Stearns & Mizruchi, 1993). The appointment of board directors with appropriate experience is associated with superior acquisition performance (Kroll, Walters & Wright, 2008). Hiring reputable directors allow firms to gain legitimacy and show positive aspects of itself to the public. Hence, directors' external identities play an essential role in determining directors' behaviors in monitoring and resource provision and will have a positive impact on firm performance.

One of the key limitations of agency theory and resource dependence theory is that both theories fail to take into considerations the role of directors' individual characteristics when trying to explain why certain type of board directors will do well in monitoring and resource provision. Hillman and her colleagues (2008) regarded directors' multiple roles as identities in the society. They argued that multiple identities affect the extent to which directors engage in monitoring and resource provision on boards (Hillman, Nicholson & Shropshire, 2008). In other words, some identities may motivate directors to engage in monitoring and resource provision, while some may reduce their incentives to take up the responsibilities of being a board director.

Hambrick, Weder and Zajac (2008) suggested that one possible new area of focus in corporate governance research could be on directors' motivation of being board directors. Due to multiple identities, directors may think and perform in ways that are consistent with their personal interests but are conflicting with their role of being board directors in a firm. Hence, this paper focuses on examining the external identities of board directors and how the relationship between external and internal identities will shape a director's behaviors of monitoring and resource provision. These behaviors will eventually affect firm performance.

1.3 Contributions

This paper contributes to the corporate governance literature on board directors in two main ways. First, this paper is noteworthy in that it elucidated the link between directors' external identities and firm performance by conducting a comprehensive examination on how the relationship between external and internal identities shapes directors' behaviors and affect firm performance. Heeding the call of Hambrick *et al.* (2008) for a new research direction on corporate governance, this paper investigates directors' motivations for being board directors by taking into consideration the possible motivating role played by their diversified external identities. In addition, by using a novel approach to examine the linkages between board directors and firm performance, this paper will enrich empirical knowledge on this domain. Second, by using identity theory, this paper brings a fresh theoretical perspective to corporate governance research. Based on identity theory, this paper is able to address some of inherent limitations of agency theory and resource dependence theory, the two classical theories most often used in research on board functions.

1.4 Organization of Study

The structure of this paper is as follow. Chapter 2 will review the literature on identity theory. In additional, Chapter 2 will clarify the conceptual definition of "identity" and put forth the key arguments on why identity theory provides a suitable framework for corporate governance research. By drawing a comparison between this study and other existing studies on identities of board directors, Chapter 2 will also illustrate the convergences and divergences of this study from other extant studies. Based on these convergences and divergences, I will highlight the merits of my study in relations to other studies of the same nature. Based on the literature review in Chapter 2, Chapter 3 will present the theoretical model and hypotheses (main and moderating effects). Subsequently in Chapter 4, I will introduce the methodology of this study. Key sections in Chapter 4 include sample construction, list of variables, analytical approach and regression models. The empirical results are reported in Chapter 5. Lastly in Chapter 6, I will discuss the findings, limitations and future research directions. The conclusion for this paper will also be presented.

CHAPTER 2 LITERATURE REVIEW

This chapter will review previous research relevant to identity theory and identities of board directors. By reviewing these studies, this section will put forth the key theoretical arguments on identities and board directors and will also provide a clear differentiation between the current study and other existing studies. In this chapter, I begin with the introduction of identity theory. Next, I will define what identity is and provide a working definition of external and internal identities as applied in this paper. Third, I will list down the similarities and differences of this paper with an existing study in order to provide a picture of how this study will advance the current literature.

2.1 Identity Theory

Identity theory suggested that individuals have multiple role identities in society (Stryker, 1968) and these identities will shape individual's behaviors (Callero, 1985). However, multiple identities may conflict with each other (Kreiner *et al.* 2006) and the interrelationships between these different identities will affect individual's behaviors (Hillman *et al.* 2008).

As suggested by Stryker and Burke (2000), there are two research streams in identity theory. One stream concentrates on examining "how social structures affect the structure of self and how the structure of the self influences social behaviors" (Stryker & Burke, 2000). The other concentrates on "internal dynamics of self-processes and these processes affect social behaviors" (Stryker & Burke, 2000). This paper focuses on the latter.

Board directors often have multiple identities and these identities may conflict with each other (Kreiner *et al*. 2006). However, not all identities are conflicting in nature. During identity conflict, some identities become salient while some do not. Directors' behaviors are driven by the identities which are not salient. However the saliency of identities is not permanent. When environmental conditions change, the saliency of identities is also likely to change.

The reasons for applying identity theory are as follow: Inspired by Hillman *et al*'s (2008) paper on using identity theory to understand directors' identities, I propose that identity theory is a useful concept in that it draws our attention to directors' individual differences. Having said that, identity theory can be used to explain how individual differences among directors can have a differential effect on board functions, as well as firm performance. The above cannot be captured and explained by agency theory and resource dependence theory, the two most commonly used theories in corporate governance research. Besides, adopting identity theory is an innovation for corporate governance studies as it provides a possible explanation to address the inconclusive relationship between board directors and firm performance. This is especially important as prior research using agency theory and resource dependency theory is inconclusive largely because they do not take into consideration individual differences among directors and these differences can lead to different effects on firm performance.

2.2 Definitions of Identity and External Identity

2.2.1 Definition of identity

Identity theory is most commonly use in social psychology and sociology research (e.g., Stryker, 1968; Stryker & Serpe, 1994). While social psychologists focused on the nature of identity salience, often linking it to other theories and psychological practices, such as psychological centrality and self-measurement (Stryker & Serpe, 1994; Burke, 1980), sociologists are interested in applying identity salience to family context (Stryker & Serpe, 1994). In this paper, identity can be defined as "parts of a self composed of the meanings that persons attach to the multiple roles they typically play in highly differentiated contemporary societies" (Stryker & Burke, 2000).

In this paper, I define the identity of a director as the professional position held by the director in an organization. For a board director of a company, it is quite common that him/her to have other professional position (s) in other organization (s) since he/she is likely to have multiple social identities. In this paper, being a board director of a firm can be considered as the internal identity of a director while other professional positions concurrently held by the director can be considered as his/her external identities.

Hillman and her colleagues (2008) found that "multiple identities of directors drive boardroom behavior and that the strength of identification with any given identity will predict a director's monitoring and resource provision". According to identity theory, when an external identity conflicts with the internal identity, the conflict will attenuate directors' motivation to monitor managers and provide resources. However, when an external identity is consistent with the internal identity, the consistency will motivate directors to engage in monitoring and resource providing behaviors. Hence, the consistency between external and internal identities could facilitate board effectiveness to achieve the goal of maximizing shareholders' value.

2.2.2 Definition of external identity

In this study, the external identity of board directors can be classified according to the professional positions they concurrently hold outside the focal firm. Specifically in this paper I will examine four types of external identities: i) being board directors on other boards; ii) being managers of other companies; iii) being employees of financial institutions and iv) being government officers or members of national people's congress. Previous studies have found that these four types of external identities will have an influence on firm's decision making (e.g., Carpenter & Westphal, 2001; Kor & Misangyi, 2008; Hillman, Zardkoohi & Bierman, 1999; Stearns & Mizruchi, 1993). Therefore, it is plausible that these four types of external identities will have an impact on director's behaviors of monitoring and resource provision, which in turn, affect firm performance.

2.3 Comparison of the Application of Identity Theory with an Existing Study

Inspired by Hillman *et al*'s (2008) paper on the influence of identity in boardroom behaviors, this paper will adopt identity theory to explain why differences in directors' characteristics will have different effects on board functions. However, the nature of my theoretical arguments is different from Hillman *et al* (2008). While Hillman *et al*'s (2008) paper argued that the strength of a director's identification with different parties, including the organization, being a director, being a CEO, shareholders, customers and suppliers, determines the effectiveness of the director on monitoring and resource provision functions, this paper argued that the relationship between an external identity and the internal identity will determine board functions and eventually affect firm performance.

Although Hillman and her colleagues (2008) and I focus on director-specific characteristics, our classification of directors' characteristics is different. Though Hillman et al's (2008) paper had focused on director-specific identities, the identities that they focused on have no strong theoretical basis. To address the limitations of Hillman *et al*'s (2008) paper, this study classifies directors' identities based on their external professional positions. The external professional positions chosen are widely examined in extant literature and prior studies have shown that these professional identities have a significant effect on firm's decision making.

Both Hillman and her colleagues (2008) and I propose that directors' identities will affect two board functions, namely, monitoring and resource provision.

Theoretically, these two board functions are mediators that explain the relationship between directors' external identities and firm performance. This paper is noteworthy in that it advances Hillman *et al*'s (2008) paper by conducting empirical testing to verify the theoretical argument based on identity theory.

CHAPTER 3 DEVELOPMENT OF HYPOTHESES

In this chapter, I will first present a theoretical model for the paper. Based on the model, I developed several hypotheses to examine how the interactions between different external identities and internal identity shape directors' behaviors of monitoring and resource provision. These behaviors will in turn affect firm performance. Finally, I explore the relationship between directors with external identities and firm performance by introducing a moderator, prior firm performance, which is an activator to test the strength and stability of this relation.

3.1 Model of Study

The model of this study is outlined in Figure 3.1. There are two theoretical models. The first model examines the main effect of the relationship between directors with different external identities and firm performance. The second model examined the moderating effect of the focal firm's historical profitability on the interaction between internal and external identities. The moderating effect of focal firm's historical profitability will eventually determine directors' monitoring and resource provision behaviors.

Hypotheses 1 to 4 hypothesized general relationships between directors with different external identities and firm performance. Hypotheses 5 to 6 further explore whether these relationship changes under different boundary conditions. This is an additional procedure to test the strength and stability of these relationships. Past performance is used as one of the boundary conditions. When firms experience poor performance, top managers will face intense pressure to improve future performance. Under intense performance pressure, managers are likely to be more opportunistic in their behaviors so as to improve their personal performance. In a same vein, when firms experience period of low unprofitability and poor performance, directors will reevaluate the extent of conflict or consistency between their internal and external identities. This comparison will lead to adjustments in their monitoring and resource provision behaviors.

3.2 Hypotheses Development

Board diversity, a requirement to satisfy the increased interest in board's strategic role, has great potential to enhance the conflicts between strategic functions of board and its governance function (Goodstein, Gautam & Boeker, 1994). The diversified strategic backgrounds of directors can have direct relationships with board functions, either positively or negatively. These relationships in turn will have an impact on firm performance. In this study, I classify the external identities of directors based on their diversified backgrounds and the working positions that they are concurrently holding. In this study, I identify four external identities of directors which were commonly discussed in previous literature: i) directors of other companies (e.g., Carpenter & Westphal, 2001); ii) managers of other companies (e.g., Hillman & Dalziel, 2003); iii) employees of financial institutions (e.g., Stearns & Mizruchi, 1993) and iv) government officers or members of national people's congress (e.g., Hillman *et al.*, 1999).

3.2.1 Main effects: The relationships between directors' external identities and firm performance

Multiple directorships indicate high monitoring and advising capabilities of directors (Ferris, Jagannathan & Pritchard, 2003). Ferris and his colleagues (2003) found that multiple directorships do not diminish a director's monitoring and resource providing behaviors. Under the assumption of socio-cognitive perspective, the knowledge gained by directors from other directorships can be relevant to the strategic issues of a focal firm. Directors with external network ties to other boards can provide strategic knowledge and experience to strategic decision making of the focal firm (Carpenter & Westphal, 2001).

In addition, professional directors have motivation to engage in monitoring and resource provision behaviors. Professional directorships will enhance the strength of identification of being a director (Hillman *et al.,* 2008). Besides, having good reputation is important for professional directors in order to attract other directorships in the market of directors (Zajac & Westphal, 1996). Thus, directors with external identity of being directors on other boards are willing to provide independent and effective monitoring of managerial behaviors. They are also likely to bring in necessary knowledge for strategic decision making in order to gain "the favorable reputation as active representatives of shareholder welfare" (Zajac & Westphal, 1996).

Since multiple directorships are positively related to both capabilities and motivation of being a board director, the external identity of being directors on other boards is consistent with the internal identity of being a board director in a focal firm. Therefore, I put forth the following hypothesis:

Hypothesis 1: The proportion of directors with external identity of concurrently being directors on other boards is positively related to focal firm performance.

Besides holding directorships on other boards, it is also common for directors to hold managerial positions in other organizations. Directors with management experience have the knowledge and expertise to understand managerial behaviors and organizational management. Hence, monitoring is especially effective when directors have abundance of management experience (Hillman & Dalziel, 2003). Executive experience can also increase the quality of advices sought by CEO (McDonald, Khanna & Westphal, 2008). Directors could monitor managerial behaviors through advising and providing useful suggestions to help managers do the right things. Hence, directors' managerial experience could facilitate efficient monitoring.

This external identity is also consistent with the internal identity on resource provision function. Hillman *et al*'s (2008) paper suggested that directors with a strong identification such as CEO are willing to perform resource provision function. The external identity of being managers in other companies equips directors with advantages in terms of resources and incentives to engage in resource provision. That is to say, directors with executive experience, having the relevant expertise and knowledge (Kor & Misangyi, 2008) can be a form of human capital for the focal firm. In addition, multiple affiliations equip these directors with access to resources of different organizations. Furthermore, seeking advice from directors is a common routine for top managers. A director who is also holding a managerial position in another firm could facilitate the function of providing advice.

Taken together, it seems to suggest that external identity of being managers in other companies can facilitate monitoring and resource provision behaviors of board directors, therefore, I hypothesize that:

Hypothesis 2: The proportion of directors with external identity of concurrently being managers of other companies is positively related to focal firm performance.

Financial resources are essential for companies to implement strategies and improve performance. Hence, directors with external identity of being employees of financial institutions play an important role on boards. Resource dependence theory (Pfeffer & Salancik, 1978) view financial institution representatives on a firm’s board as external financial resource explorers. Their presence on boards could increase the chances of accessing financial support for the focal firms. Stearns and Mizruchi (1993) found that having the directors on boards from different types of financial institutions facilitated different forms of borrowings.

The financial resources brought in by directors from financial institutions could be viewed as a form of investment from these institutions. As investors, board representatives from these financial institutions have incentive to monitor how the focal firms utilize their money. They tend to be more involved and are more likely to play an important role during decision making. They are also more likely to track the implementation of organizational activities, such as, strategy and investment projects.

In summary, the more directors who concurrently working for financial institutions, the more financial resources the focal firms can gain for their needs. The more investment the directors bring in, the higher monitoring motivation they have. Thus, companies with financial institution representatives on boards have great chance to achieve higher performance through sufficient financial support and effective vigilance on managers' behaviors. Since the external identity of being employees of financial institutions will facilitate resource provision and monitoring functions, this external identity is consistent with internal identity and could contribute to firm performance. Therefore, I put forth the following hypothesis:

Hypothesis 3: The proportion of directors with external identity of concurrently being employees of financial institutions is positively related to focal firm performance.

Compared to other directors, directors with government affiliations are able to grant increased access to scarce resources and confer unique policy privileges. These linkages with government could benefit companies in terms of "getting timely information, ease in accessing resources, greater influence and reduction in uncertainty and transaction cost" (Hillman, Zardkoohi & Bierman, 1999). Since government officials have the authority to distribute resources, directors who are government officials or have connections with them are able to help a focal firm get the access to the resources they need. Additionally, political connections increase the interaction between firms and government. This interaction could in turn result in policies being passed in the favor of the companies (Pittman, 1977).

From the perspective of monitoring, the external identity of being government officials or members of national people's congress is likely to conflict with the internal identity of being a board director in a focal firm. For example, in China's state owned enterprises, as managerial interests always present state interests in Chinese firms, directors holding government positions represent state's interests, thus they are unable to provide true independent monitoring (Peng, 2002, 2004). Similarly, in other economic contexts, since government continues to play an influential role in decision making process, directors with external identity associated with government may not be able to provide independent and objective monitoring. Instead, they are likely to influence the strategic decision making in their own favor.

In summary, although directors with external identity affiliated with government may not be able to provide effective monitoring, the benefits in terms of access to resources and policy privileges from government affiliations are likely to result in increased firm value (Hillman *et al.*, 1999). Therefore, I hypothesize that:

Hypothesis 4: The proportion of directors with external identity of concurrently being government officers or members of national people's congress is positively related to focal firm performance.

3.2.2 Moderating effects: Prior firm performance as a moderator

To further explore the impact directors' external identities on firm performance, I introduce prior performance of the focal firms as a moderator to track and isolate directors' influences on firm performance by taking into consideration the focal firm performance under different historical records. Prior performance is an activator that enhances or attenuates the relationship between external and internal identities. It is an important procedure to include prior firm performance as a moderator to further investigate the strength and stability of the relationship between directors with different external identities and firm performance.

Poor prior performance will result in top managers facing intense pressure to improve future performance. Similarly, directors will have to put in increased effort to monitor managerial behaviors and to bring in additional resources to help improve firm performance. As firm performance is positively related to the number of directorships (Ferris *et al.*, 2003), directors with multiple director appointments have the incentive to monitor managerial behaviors and provide resources to improve firm performance so that they can protect their reputation and their director "career". For directors with managerial role identities, they have the incentive to monitor and provide advice to help mangers in focal firm since they are likely to have been in similar situations themselves and they know how important it is for directors to provide help during times of crisis. Managers are more likely to appropriate shareholders' wealth when a focal firm has good prior performance than the times of poor performance, because there are much more available resources for them to appropriate. Hence, during times of good performance, directors also have to devote intense attention to managerial behaviors to avoid shareholders' wealth being appropriated by managers.

For directors with external identities of being directors and managers of other companies, regardless of how the prior focal firm had performed previously, their motivation of engaging in monitoring and resource provision would not change as their motivation for monitoring and resource provision remains high during both poor and good performance. Thus, prior performance will not moderate the strength of the relationship between directors with external identity of being directors on other boards and firm performance and the relationship between directors with external identity of being managers of other companies and firm performance.

Stearns and Mizruchi (1993) found that firms with higher debt ratio were less likely to borrow money from financial institutions whose representatives served on the boards. As an investor of the firm, directors affiliated with financial institutions are unlikely to invest their money on the company during periods of poor performance. Besides, as a board director, the investor will have privileged inside knowledge about the firm which he or she has a directorship in. This information will keep these directors rational when they evaluate whether to bring in additional financial resources to the focal firm. Companies with poor performance have greater incentive to take higher risk that is associated with higher return than those with good performance (Stearns & Mizruchi, 1993). Managers in these companies are likely to perform inconsistently with shareholder's interest, because they tend to focus on short-term profits that could improve their personal performance immediately, not on long-term development of a healthy company. Since financial institution representatives on boards have to take greater risk for their investment and put in more effort on monitoring, they are less likely to invest in a company with poor prior performance. This is because investing their money in such firms is highly risky and returns from these investments are highly uncertain.

Since prior performance of the firm provides the necessary information for directors to gauge the firm's current situation, it will determine a director's judgment on the company. Firms with outstanding prior performance will find it easier to attract financial resources brought by directors who are concurrently working for financial institutions than those with poor performance. Accordingly, prior firm performance could determine the amount of resources brought in by directors affiliated with financial institutions, and thus, be a moderator to moderate the strength of the relationship between directors as representatives of financial institutions on boards and firm performance. Good prior performance will enhance the consistency of the director's internal and external identities, while poor prior performance will attenuate the consistency. Therefore, I hypothesize that:

Hypothesis 5: Prior performance has a positive moderating effect on the relationship between the proportion of directors with external identity of being employees of financial institutions and focal firm performance; such that their positive relationship will be enhanced when a focal firm has high prior performance, and attenuated when a focal firm has low prior performance.

Directors with external identity as government officials or as members of national people's congress will have access to special resources and policy privileges that can benefit the firm performance (Hillman, *et al.*, 1999). These scarce resources and policy privileges can be only obtained through political ties. Good prior performance of the focal firm acts as evidence to convince these directors to bring in valuable resources. Similar, good prior performance can be a motivator that motivates these directors to maintain their resource provision behaviors. When a focal firm has good prior performance, directors' external identity of being affiliated with government is consistent with internal identity of resource provision. Conversely, when focal firm experienced poor prior performance, the focal firm is highly dependent on the scarce resources and policy privileges accrued from government affiliated board directors since these benefits are crucial for firm's recovery. However, poor prior performance will attenuate the motivation of directors engaging in resource provision behaviors.

Directors affiliated with government will not be able to provide effective monitoring of managerial behaviors since their interests represents those of the state, not those of the shareholders. Since managerial opportunistic behaviors are more detrimental when the focal firm experienced poor prior performance than when the firm had good prior performance, monitoring function of board directors is more important in the former condition than in the latter. Therefore, the lack of effective monitoring, due to the conflict between external and internal identities, will be more detrimental when the focal firm experienced poor prior performance than when it had a good historical record. Accordingly, I hypothesize that:

Hypothesis 6: Prior performance has a positive moderating effect on the relationship between the proportion of directors with the external identity of government officers or members of national people's congress and focal firm performance; such that, their positive relationship will be enhanced when a focal firm has high prior performance, and attenuated when a focal firm has poor prior performance.

CHAPTER 4 METHODS

4.1 Sample Selection and Data collection

This paper focuses on Chinese firms listed on both Shenzhen and Shanghai Stock Exchanges. The year of data is 2006. Data for this study is collected from three data sources. First, data were collected from Sinofin database which includes firm performance variables: net income, total assets, equity and revenue, Global Industry Category Standard (GICS) code and ownership. Second, data were collected from GTA RSC system which includes the information of directors' concurrent positions, working companies and board size. Third, the data of registration date of each listed firm were collected from the companies' annual reports.

After excluding observations with missing data and outliers, the final sample consists of 1100 observations with 665 listed firms from Shanghai Stock Exchange and 435 listed firms from Shenzhen Stock Exchange. The data are distributed in 22 industries. Industry distribution map is shown in Table 1.

Table 1 goes about here

4.2 Definitions of Variables

Dependent variables

Since the Chinese capital market is not well developed, market-based measure may not reflect the real performance (Peng, 2004). Thus, I have chosen accounting-based measure to define firm performance. After reviewing the relevant literature, there are no consensuses on measuring firm performance. In light of the lack of consensus, I chose returns on assets (ROA= Net Income / Total assets), returns on sales (ROS= Net Income / Revenue) and returns on equity (ROE= Net Income / Equity), three of the most commonly used indicators in existing literature (Peng, 2004; Daily & Dalton, 1992), as accounting-based financial indicators.

Independent variables

There are four independent variables representing four categories of external identities.

Proportion of directors with external identity of being directors on other boards = The number of directors with multiple directorships / Board size

Proportion of directors with external identity of being managers in other companies = The number of directors holding managerial positions in other firms / Board size

Proportion of directors with external identity of being employees in financial institutions = The number of directors working for financial institutions / Board size

Proportion of directors with external identity of being government officers or members of national people's congress = The number of directors who are concurrently government officers or members of national people's congress / Board size

To be emphasized, this paper does not consider how an individual director affects firm performance. As a director can have more than one external identity, he/she can be a manager of a bank and a director of another company simultaneously. Focusing on individual directors may cause conflicting conclusions if their multiple external identities have opposite effects on firm performance. Therefore, this study focuses on different categories of external identities to investigate the relationship between the proportion of a certain external identity on board and firm performance.

Moderators

Prior firm performance in 2005, measured in the form of ROA of 2005, ROS of 2005 and ROE of 2005 were used as moderators.

Control variables

Control variables are selected based on previous literature on related topics. First, firm size measured by the log of total assets was used to control size-related impact on performance. Second, firm's age was controlled for since it could reflect the extent of operating experience in related industries and this may affect firm performance. Third, many Chinese firms were transformed from state-owned enterprises to private firms during economic transitions (Peng, 2004). Because of their government affiliations, these firms may have better performance than non-SOEs. State ownership, which was defined as the largest shareholder was state and measured by dummy variable: 1-SOE, 0-non-SOE, was used to control the effect of state affiliations on firm performance. The reason state ownership was not measured by continuous value was that using continuous value may not be able to reflect the relationship between state ownership and firm performance. For example, the company with 20% state holding shares may have better performance than the one with 30% state holding shares, because state is the largest shareholder in the company with 20% state holding shares but not in the one with 30% state holding shares. It is also possible that the company with more state holding shares has better performance than the one with less state holding shares, because state is the largest shareholder in the former company but not in the later one. Therefore, it is more accurate to use dummy variable to test the effect of state affiliations on firm performance. Fourth, types of industries were used as control variables in order to control for performance variance caused by industrial effects. The classification of industries was based on the first four digits of GICS code. Since there are 22 industries in my sample, I created 21 dummy variables to control industry effects.

4.3 Analytical Approach and Regression Models

As the data are cross sectional with continuous dependent variables, OLS regression is applied as the analytical approach. I constructed the main effect model by including all the independent variables (proportion of directors with external identities of being directors on other boards, managers of other companies, employees of financial institutions and government officers or members of national people's congress) and control variables (firm size, firm age, state ownership dummy and industry dummies) in one regression model. Based on the main effect model, I added prior firm performance and the interaction term (prior performance multiplied by each independent variable) in the moderating effect model. The regression models are as follow:

Main effect model:

$$Y_t = b_{0t} + b_{1t}\ DIR_t + b_{2t}\ MGR_t + b_{3t}\ FIN_t + b_{4t}\ GOV_t + b_{5t}\ FIRM\_SIZE_t + b_{6t}\ FIRM\_AGE_t + b_{7t}\ OWN\_DUM_t + \sum b_{8it}\ IND_{it} + \varepsilon_t$$

Moderating effect model:

$$Y_t = b_{0t} + b_{1t}\ DIR_t + b_{2t}\ MGR_t + b_{3t}\ FIN_t + b_{4t}\ GOV_t + b_{5t}\ Y_{t-1} + b_{6t}\ DIR_t{*}Y_{t-1} + b_{7t}\ MGR_t{*}Y_{t-1} + b_{8t}\ FIN_t{*}Y_{t-1} + b_{9t}\ GOV_t{*}Y_{t-1} + b_{10t}\ FIRM\_SIZE_t + b_{11t}\ FIRM\_AGE_t + b_{12t}\ OWN\_DUM_t + \sum b_{13it}\ IND_{it} + \varepsilon_t$$

Y_t : ROA, ROS or ROE in year t, t=2006

Y_{t-1} : ROA, ROS or ROE in year t-1, t-1=2005

DIR_t : proportion of directors with external identity of being directors on other boards in year 2006

MGR_t : proportion of directors with external identity of being managers of other companies in year 2006

FIN_t : proportion of directors with external identity of being employees of financial institutions in year 2006

GOV_t : proportion of directors with external identity of being government officers or members of national people's congress in year 2006

$FIRM\_SIZE_t$: firm size (log of total assets) in year 2006

$FIRM\_AGE_t$: firm age until year 2006

OWN_DUM_t : state ownership dummy in year 2006

IND_{it} : industry dummy i in year 2006

CHAPTER 5 RESULTS AND INTERPRETATIONS

5.1 Main Effects

Table 2 reports the descriptive statistics and the correlation matrix of main variables. Hypothesis 1 predicts that the proportion of directors with external identity of being directors on other boards is consistent with the internal identity of being board directors in a focal firm. This external identity will enhance directors' behaviors of monitoring and resource provision and benefit firm performance. It received empirical supports in Model 1 and 3, but not Model 2 shown in Table 3.

The results revealed that multiple directorships of board directors benefit return on assets and return on equity, but it does not have a direct impact on return on sales. One possible reason is that in order to improve ROS, the key issue is to minimize costs or maximize net income so that the proportion of net income in total sales revenue can be increased. However, multiple directorships do not directly help minimize costs through independent monitoring or providing strategic knowledge. Hence, hypothesis 1 was supported in model 2.

Table 2 goes about here

Table 3 goes about here

Hypothesis 2, which predicts the positive relationship between directors with external identity of being managers of other companies and firm performance, was also partially supported. Different from the results of hypothesis 1, hypothesis 2 received support in Model 1 and 2, but not Model 3. These results suggested that directors' managerial experience and affiliations with other companies are only beneficial to certain accounting-based performance such as ROA and ROS.

Shown in Table 3, hypothesis 3 was not empirically supported and it received only marginal support in Model 1. One plausible explanation is that as financial resource providers, directors with financial institution affiliations do not necessarily have direct impact on firm performance. Unlike directors with multiple directorships, who have plenty of knowledge and expertise, the advantage conferred by directors with financial institutions affiliation is limited to the accessibility to financial resources. Because of lack of relevant experience and knowledge, these directors may have little to contribute to strategic planning other than exercising their voting rights. Typically, large institutional owners do not facilitate effective firm-level monitoring (Dharwadkar, Goranova, Brandes & Khan, 2008). Hence, they are unlikely to have tangible influence on firm success.

Furthermore, due to the affiliations with financial institutions through board directors, the easy access to financial resources is likely to result in the focal firm having little incentives to improve its performance. To put differently, managers are unlikely to cherish and make good use of these financial resources as these resources are too readily available. From an economics perspective, this phenomenon is relevant as inefficient resource allocation which is harmful to economic performance. Therefore, it is likely for companies with representatives of financial institutions on boards to experience poor performance.

Hypothesis 4 received empirical support only in Model 2 with dependent variable of ROS. These results partially supported my prediction that the proportion of directors with official political connections is positively related to firm performance. These findings suggested that government affiliations related to the access to scarce resources and policy privilege can only partially benefit firm performance.

According to the results of main effect model, with the exception of hypothesis 3, all other hypotheses received partial support. These results revealed that directors with external identities of being directors on other boards, managers of other companies, government officers or members of national people's congress are consistent with the internal identity of being board directors of a focal firm. This consistency benefitted firm performance through the monitoring and resource provision functions. Thus, board diversity is necessary in order to improve firm performance. However it should be noted that sometimes a director's special ties to certain resources may affect the efficiency of resource allocation and its utilization. Ties such as those with financial institutions do not necessarily contribute to firm performance.

5.2 Moderating Effects

Hypothesis 5 predicts that prior performance has a positive moderating effect on the relationship between the proportion of directors with external identity of being employees of financial institutions and focal firm performance. It received significant support in Model 5 of Table 3. This finding supported my argument that financial institution representatives do not want to invest their money in companies with poor performance track records and to put additional effort in monitoring possible managerial opportunistic behaviors. The positive moderating effect is shown in Figure 5. 2. A.

The non-significant moderating effect with ROA as dependent variable may be explained by the accounting relationship between financial resources and total assets. Total assets equal to equity plus debt. Financial resources are typically considered as part of debt in accounting practices. When directors, who are representatives from financial institutions, bring financial resources to a focal firm, the amount of debt will increase. And so will total assets. Meanwhile, ROA will be reduced due to the increase of denominator, assuming that net income is kept constant. Therefore, when directors bring in financial resources, it is likely for ROA to fall. That is why the positive moderating effect does not exist when firm performance is measured by ROA.

One possible reason why the moderating effect is non-significant when using ROE as dependent variable could plausibly be related to the usage of financial resources. The increase of financial resources through borrowing does not have an impact on equity. Additionally, it is most likely that the financial resources will not have a direct influence on net income in the short run. This example of the usage of financial resources could be extended to production, investments in new projects as it would be difficult for them to generate immediate effect by increasing net income. Thus, the hypothesis on moderating effect with ROE as the dependent variable did not receive support.

- -
Figure 5.2.A goes about here
- -

Similarly, hypothesis 6 received support only in Model 5 of Table 3. The result partially supported my prediction of the positive moderating effect of prior performance on the relationship between directors with external identity of being government officers or members of national people's congress and firm performance. The positive moderating effect is shown in Figure 5. 2. B.

- -
Figure 5.2.B goes about here
- -

The summary of hypothesis test is shown in Table 4.

- -
Table 4 goes about here
- -

CHAPTER 6 DISCUSSIONS

6.1 Summary of Findings

The inconclusive findings on the relationship between board directors and firm performance have always been a cause of concern for scholars in corporate governance literature (Dalton *et al.,* 1998; Hillman *et al.,* 2008). To further investigate this relationship, an in-depth and comprehensive examination of director's individual characteristics is necessary. This examination should focus on how certain characteristics of a director determine his/her motivation of being a director and his/her engagement in monitoring and resource providing behaviors (Hambrick *et al*., 2008). This in-depth analysis will advance our understanding on the relationship between board directors and firm performance.

This paper focuses on the external identities of directors to explain how the relationship between external and internal identities shapes directors' behaviors of monitoring and resource provision and how such behaviors affect firm performance. The external identity of directors is defined as a professional position that a director is concurrently holding in another organization. The internal identity is defined as being a board director in a focal firm. I have identified four external identities of directors: i) being directors of other companies; ii) being managers of other companies; iii) employees of financial institutions and iv) government officers or members of national people's congress. Individually, these identities have been found in previous literature to have an influence on firm strategic decision making. Based on identity theory, I argued that when an external identity conflicts with the internal identity, the conflict will attenuate the motivation of directors to monitor managerial behaviors and provide resources. However, when an external identity is consistent with the internal identity, this consistency will motivate directors to engage in monitoring and resource provision behaviors, ultimately benefitting firm performance.

My findings are instructive in several ways. First, I found that directors with external identities of being directors and managers of other companies and government officers or members of national people's congress are able to contribute to focal firm performance. However, directors with external identity of being employees of financial institutions do not necessarily help improve focal firm performance. One possible reason is that the focal firms may not cherish and make good use of the financial resources since they have such easy access to them. In summary, the external identities of board directors identified in this paper are generally consistent with the internal identity of being board directors in a focal firm. This convergence can contribute to firm performance by facilitating monitoring and resource provision behaviors. The findings are not trying to show the causality between board directors and firm performance, but to prove and explain the positive linkages between directors with certain external identities and firm performance. Second, prior firm performance has positive moderating effects on the relationship between the proportion of directors with external identities of being employees of financial institutions and return on sales. It also moderates the relationship between the proportion of directors with external identity of being government officers or members of national people's congress and return on sales.

6.2 Theoretical Contributions

This paper applies identity theory, a perspective new to corporate governance literature, to explain how board directors with different identities determine board functions and affect firm performance. This paper can be viewed as an attempt to bring in a new perspective to research on board directors (Hillmean *et al.,* 2008). Exploring the identities of directors and their effects on firm performance has potential to advance existing literature which is often based on agency theory and resource dependency theory. For instance, human agents in agency theory are treated homogeneous and share the same identity and incentive structure as long as they are classified in the same categories. Identity theory highlights the fact that there are various social categories within directors which may modify the motivation and behavior of agents. Hence, the various social categories will affect firm performance differently. What's more, this study provides a plausible explanation for the inconclusive relationship between board directors which are considered as a homogeneous group and firm performance in previous research.

This paper advances Hillman *et al*'s (2008) study in two aspects. First, this research specifies four professional identities of directors which are more theoretically grounded than the identities identified in Hillman *et al*'s (2008). Second, this paper is an empirical study to explore the relationship between different directors' external identities and firm performance. Compared with studies that had typically focused on single external affiliation of board directors, this study provides a comprehensive examination on how different professional identities of directors affect board functions. Further, this study provides the much needed empirical validation on identity theory.

Empirical findings from this study will enrich scholars' understanding on the relationship between board directors and performance relation. In addition, it sheds lights on the innovation of corporate governance research by applying identity theory to the domain of corporate governance research. This study is noteworthy in that it addresses the limitations of agency theory and resource dependence theory by taking into consideration individual difference when explaining board directors and firm performance relationship.

6.3 Practical Implications

Practitioners can gain insights from the findings on director appointment in that directors with multiple directorships, managerial positions in other companies and official political ties do have contribution to firm performance. When firms enjoy stellar performance in the past, the appointment of directors with financial institutions and government affiliations will assist firms achieving better performance record. However, when firms experienced poor performance, the appointment of these directors may not be always effective to improve firm performance.

Due to China's reality that the power of decision making is centralized by managers, board directors hardly influence strategic decisions. This study provides an empirical evidence of the importance of board directors to firm performance. Therefore, to improve firm performance and catch up with the advanced western management mode, realizing the right of board directors to participate in strategic decision making through monitoring managerial behaviors and providing resources is a necessary and determinant step for Chinese corporations.

6.4 Limitations and Suggestions for Future Study

Unlike previous studies (eg. Kor & Misangyi, 2008; Kroll *et al.*, 2008) on director experience, this study did not categorize director experience into industry-related and -unrelated. This could be a plausible reason why this paper is not able to detect the effect of industry relatedness on the relationship between board directors and firm performance. However, this paper captures the characteristics of directors' different external identities and verified if these external identities are consistent with their internal identities of being board directors. It provides a broader view of looking at directors' composition on boards than previous literature does.

Although the cross-sectional nature of the data precluded the drawing of casual relation, this paper has its merits in that it provided an empirical test for the theoretical argument based on identity theory. Further study is needed to collect longitudinal data and year-lag performance can be used as a dependent variable to explore the casual relationship between directors and firm performance. Moreover, a greater period of year-lag for prior performance could be used to improve the robustness of the moderation model.

Although the relationship between board directors and board functions has been well established in previous literatures (eg, Hillman *et al.*, 2008), an advanced model with board functions as a mediator between directors with different external identities and firm performance could possibly be a promising research direction for further study. However, due to limitations in data, this paper introduces the theoretical arguments that board functions can be a mediator, but this relationship is not empirically tested. Other research methods, such as survey (Westphal, 1999; McDonald *et al.,* 2008), could be used for further research in order to obtain variables on board functions.

6.5 Conclusions

Despite its limitations, this paper is instructive in that its findings suggested that directors with external identities of being directors and mangers of other companies and government officers or members of national people’s congress are positively related to focal firm performance. Moreover, prior performance of focal firm has positive moderating effects on the relationship between directors with external identity of being representatives of financial institutions and firm performance and the relationship of directors with external identity of being government officers or members of national people’s congress and firm performance. This paper provides a novel insight to research on board directors by focusing on directors’ identities and enriches corporate governance literature with empirical findings. Moreover, it draws attention to practical implications on board director appointment.

REFERENCES

Burke, P. 1980. The self: Measurement requirements from an interactionist perspective. *Social Psychology Quarterly*, 43: 18–29.

Callero, P. L. 1985. Role-identity salience. *Social Psychology Quarterly*, 48 (3): 203-215.

Carpenter, M. A., & Westphal, J. D. 2001. The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management Journal*, 4 (4): 639-660.

Daily, C. M., & Dalton, D. R. 1992. The relationship between governance structure and corporate performance in entrepreneurial firms. *Journal of Business Venturing*, 7: 375–386.

Daily, C. M., Dalton, D. R., & Cannella, A. A. Jr. 2003. Corporate governance: Decades of Dialogue and data. Academy of Management Review, 28 (3): 371-382.

Dalton, D. R, Daily, C. M., Ellstrand, A., & Johnson, J. L.1998. Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal*, 19: 269–290.

Dharwadkar, R., Goranova, M., Brandes, P., & Khan, R. 2008. Institutional ownership and monitoring effectiveness: It’s not just how much but what else you own. *Organization Science*, 19 (3): 419-440

Fama, F.E., & Jensen, C. J. 1983. Separation of ownership and control. *Journal of Law and Economics*, 26: 327-349.

Ferris, S. P., Jagannathan, M., & Pritchard, A. C. 2003. Too busy to mind the business? Monitoring by directors with multiple board appointments. The Journal of Finance, 58 (3): 1087-1111.

Goodstein, J., Gautam, K., & Boeker, W. 1994. The effects of board size and diversity on strategic change. *Strategic Management Journal*, 15: 241-250.

Hambrick, D. C., Werder, A. V., & Zajac, E. J. 2008. New directions in corporate governance research. *Organization Science*, 19 (3): 381-385.

Hillman, A. J., & Dalziel, T. 2003. Boards of directors and firm performance: Integrating agency and resource dependence perspective. *Academy of Management Review*, 28: 383-396.

Hillman, A. J., Nicholson, G., & Shropshire, C. 2008. Directors' multiple identities, identification, and board monitoring and resource provision. *Organization Science*, 19 (3): 441-456.

Jensen, M., & Meckling, W. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3: 305-360.

Kor. Y. Y., & Misangyi, V. F. 2008. Outside directors' industry-specific experience and firms' liability of newness. *Strategic Management Journal*, 29: 1345-1355.

Kreiner, G. E., Hollensbe, E. C., & Sheep, M. L. 2006. Where is the "me" among the "we"? Identity work and the search for optimal balance. *Academy of Management Journal*, 49 (5): 1031-1057.

Kroll, M., Walters, B. A., & Wright, P. 2008. Board vigilance, director experience, and corporate outcomes. *Strategic Management Journal*, 29: 363-382.

McDonald, M. L., Khanna, P., & Westphal, J. D. 2008. Getting them to think outside the circle: Corporate governance, CEO's external advice networks, and firm performance. *Academy of Management Journal*, 51 (3): 453-475.

Mizruchi, M. S. 1983. Who controls whom? An examination of the relation between management and board of directors in large American corporations. *Academy of Management Review*, 8: 426–435.

Peng, M. W. 2004. Outside directors and firm performance during institutional transitions. *Strategic Management Journal*, 25: 453–471.

Pfeffer, J., & Salancik, G. 1978. *The external control of organizations*. Harper & Row, Chapter 3 and 4: 39-91.

Pittman, R. 1977. Market structure and campaign contributions. *Public Choice*, 31: 37-58.

Shleifer, A., & Vishny, R. 1997. A survey of corporate governance. *Journal of Finance*, 52: 737-783.

Stearns, L. B., & Mizruchi, M. S. 1993. Board composition and corporate financing: The impact of financial institution representation on borrowing. *Academy of Management Journal*: 38 (3): 603-618.

Stryker, S. 1968. Identity salience and role performance: The importance of symbolic interaction theory for family research. J. *Marriage Family*, 30: 558-564.

Stryker, S., & Burke, J. P. 2000. The past, present, and future of an identity theory. *Social Psychology Quarterly*, *63(4)*: 284-297.

Stryker, S., & Serpe, t. R. 1994. Identity salience and psychological cerntrality: equivalent, overlapping, or complementary concepts? *Social Psychology Quarterly*, 57 (1): 16-35.

Westphal, J. D. 1999. Collaboration in the boardroom: The consequences of social ties in the CEO/board relationship. *Academy of Management Journal*, 42: 7-24.

Westphal, D. J., & Zajac, J. E. 1998. The Symbolic Management of Stockholders: Corporate Governance Reforms and Shareholder Reactions. *Administrative Science Quarterly*, 43: 127-153.

Zahra, S. A., & Pearce, J. A. 1989. Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15: 291–334.

Zajac, E. J., & Westphal, J. D. 1996. Who shall rule after a CEO succession? The likelihood and direction of changes in CEO characteristics. *Administrative Science Quarterly*, 41 (3): 507-529.

APPENDIX

Figure 3.1 Model of Study

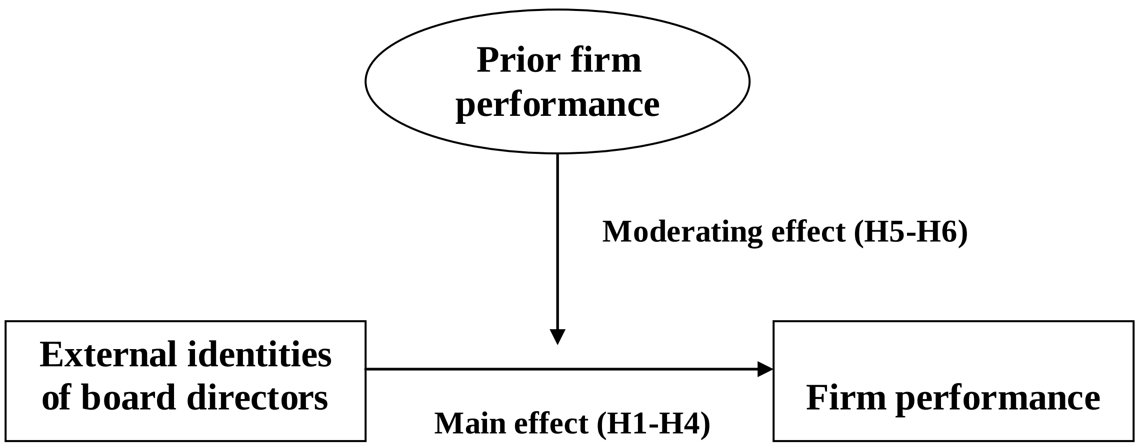

Figure 5. 2. A. Moderating effect of prior performance on the relation between ROS and directors with external identity as representatives of financial institutions

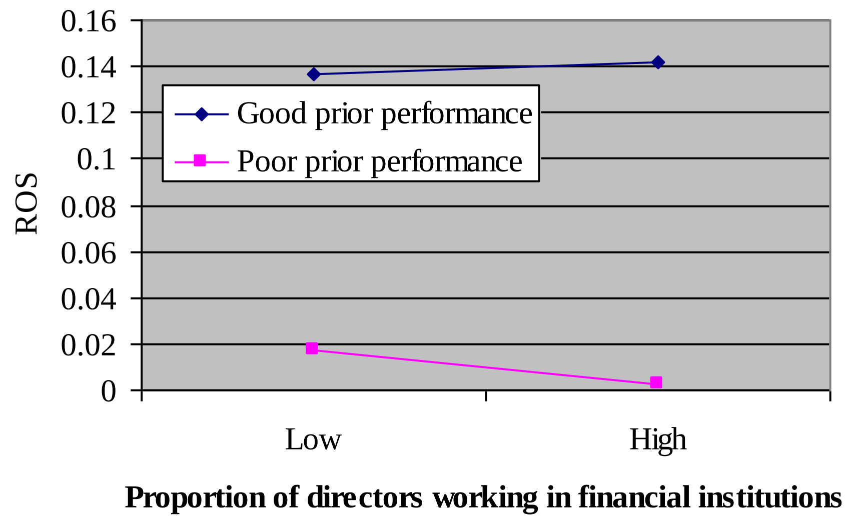

Figure 5. 2. B. Moderating effect of prior performance on the relation between ROS and directors with external identity as government officers or members of national people's congress

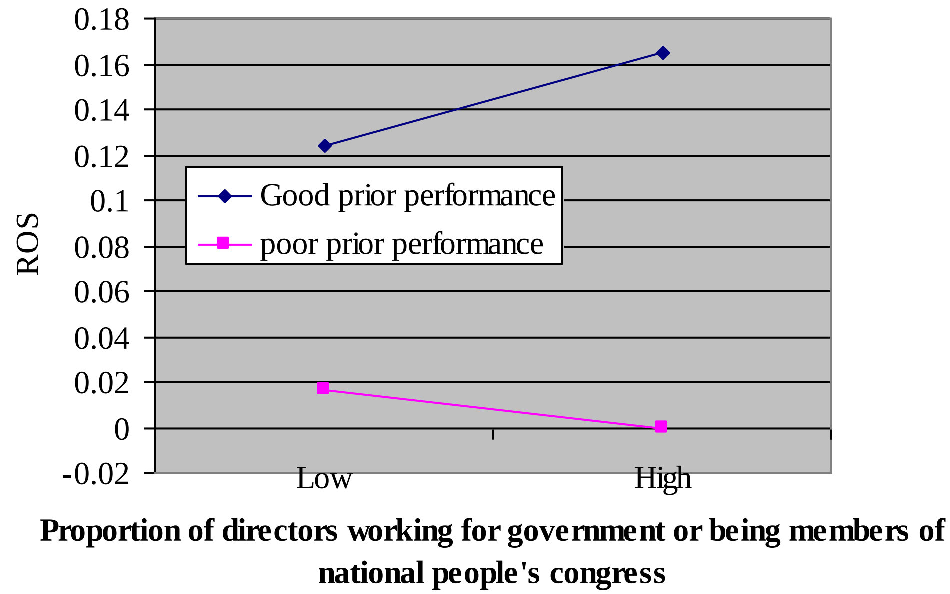

Table 1. Industry distribution of the sample

Industry category	No. of observations
Energy	19
Materials	231
Capital Goods	210
Commercial & Professional Services	5
Transportation	58
Automobiles and Components	39
Consumer Durables and Apparel	89
Consumer Services	18
Media	8
Retailing	48
Food & Staples Retailing	5
Food, Beverage & Tobacco	63
Household & Personal Products	5
Health Care Equipment & Services	13
Pharmaceuticals, Biotechnology & Life Sciences	74
Diversified Financials	2
Real Estate	64
Software & Services	23
Technology Hardware & Equipment	70
Semiconductors & Semiconductor Equipment	3
Telecommunication Services	2
Utilities	51
Total number of sampled firms	**1100**

Table 2. Correlation Matrix of Main Variables in the Models

	No. of obs.	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Proportion of directors with external identity as directors of other firms	1100	0.49	0.36												
2. Proportion of directors with external identity as managers of other firms	1100	0.54	0.33	0.37***											
3. Proportion of directors with external identity as representatives of financial institutions	1100	0.03	0.08	0.07*	0.19***										
4. Proportion of directors with external identity as government officers or members of national people's congress	1100	0.01	0.04	0.01	0.05	0.05									
5. ROA	1100	0.04	0.04	0.10***	0.01**	-0.03	0.01								
6. ROS	1100	0.08	0.10	0.08*	0.18***	0.02	0.08**	0.54***							
7. ROE	1100	0.08	0.07	0.01***	0.07*	0.01	-0.02	0.82***	0.37***						
8. ROA of prior year	1036	0.04	0.03	0.11***	0.07*	-0.03	0.00	0.78***	0.47***	0.62***					
9. ROS of prior year	1036	0.07	0.10	0.09**	0.14***	0.00	0.05†	0.42***	0.70***	0.28***	0.53***				
10. ROE of prior year	1036	0.07	0.07	0.12***	0.06†	0.00	-0.02	0.64***	0.34***	0.72***	0.82***	0.38***			
11. Firm size by total assets (log)	1100	9.32	0.46	0.13***	0.11***	0.11***	0.02	0.10***	0.08*	0.25***	0.17***	0.06*	0.30***		
12. Firm age	1100	10.65	3.69	-0.06*	-0.07*	0.03	0.05†	-0.09**	-0.03	-0.04	-0.10**	-0.05	-0.05	0.31	
13. Ownership (dummy)	1100	0.68	0.47	0.02	0.23***	0.05	-0.01	-0.02	0.02	0.00	0.03	0.01	0.02	0.28***	-0.08*

†p < 0.1. *p < 0.05. **p<0.01. ***p<0.001.

Table 3. OLS regression models predicting proportion of directors with different external identities and firm performance relations

Dependent variables	**Model 1** (ROA)	**Model 2** (ROS)	**Model 3** (ROE)	**Model 4** (ROA)	**Model 5** (ROS)	**Model 6** (ROE)
Independent variables						
Proportion of directors with external identity as board directors of other firms (Dir)	0.006*	0.001	0.011*	0.000	0.003	0.001
	(0.003)	(0.008)	(0.006)	(0.003)	(0.008)	(0.007)
Proportion of directors with external identity as managers of other firms (Mgr)	0.008*	0.036***	0.011	0.005	0.020*	0.019*
	(0.004)	(0.009)	(0.007)	(0.004)	(0.009)	(0.008)
Proportion of directors with external identity as representatives of financial institutions (Fin)	-0.023†	-0.019	-0.023	-0.023†	-0.07*	-0.046
	(0.013)	(0.034)	(0.026)	(0.013)	(0.033)	(0.030)
Proportion of directors with external identity as government officers or members of national people's congress (Gov)	0.005	0.219***	-0.045	-0.018	-0.050	-0.050
	(0.0243)	(0.062)	(0.047)	(0.023)	(0.057)	(0.058)
ROA-2005				0.808***		
				(0.046)		
ROS-2005					0.608***	
					(0.048)	
ROE-2005						0.812***
						(0.051)
Dir*ROA-2005				0.011		
				(0.062)		
Mgr*ROA-2005				0.008		
				(0.070)		
Fin*ROA-2005				0.348		
				(0.285)		
Gov*ROA-2005				0.462		
				(0.499)		
Dir*ROS-2005					-0.108	
					(0.066)	
Mgr*ROS-2005					-0.037	
					(0.076)	
Fin*ROS-2005					0.598**	
					(0.209)	
Gov*ROS-2005					1.715***	
					(0.352)	
Dir*ROE-2005						0.000
						(0.072)
Mgr*ROE-2005						-0.131
						(0.080)
Fin*ROE-2005						0.524
						(0.322)
Gov*ROE-2005						0.432
Control variables						
Firm Size	0.007**	0.005	0.040***	0.000	0.008†	0.010**
	(0.002)	(0.006)	(0.005)	(0.002)	(0.005)	(0.004)

Firm Age	-0.0004	0.000	0.000	0.000	0.001	0.000
	(0.0003)	(0.0008)	(0.0006)	(0.0002)	(0.0006)	(0.0004)
State ownership	-0.006*	-0.009	-0.016**	-0.002	-0.002	-0.005
	(0.002)	(0.006)	(0.005)	(0.002)	(0.005)	(0.004)
Constant	-0.039	0.036	-0.311***	-0.001	-0.057	-0.086*
	(0.024)	(0.063)	(0.047)	(0.017)	(0.049)	(0.038)
Adjusted-R^2	0.074	0.233	0.086	0.607	0.534	0.514
N	1100	1100	1100	1036	1036	1036

a. Standard errors in parentheses. †$p<0.1$, *$p<0.05$, **$p<0.01$, ***$p<0.001$.

b. Twenty-one industry dummies are controlled.

Table 4. Summary of hypothesis test

Model	No.	Hypothesis description	Result
Main effect	H1	The proportion of directors with external identity of being directors on other boards is positively related to firm performance.	Partially Supported
	H2	The proportion of directors with external identity of being managers of other companies is positively related to firm performance.	Partially Supported
	H3	The proportion of directors with external identity of being employees of financial institutions is positively related to firm performance.	Not supported
	H4	The proportion of directors with external identity of being government officers or members of national people's congress is positively related to firm performance.	Partially Supported
Moderating effect	H5	Prior performance has a positive moderating effect on the relationship between the proportion of directors with external identity of being employees of financial institutions and focal firm performance.	Partially Supported
	H6	Prior performance has a positive moderating effect on the relationship between the proportion of directors with the external identity of government officers or members of national people’s congress and focal firm performance.	Partially Supported