# Institutional Embeddedness Renewal of Business Groups during Market-Oriented Institutional Transitions: The Case of Business Groups in China

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# Abstract

Business groups are central organizations in many emerging economies. It is theoretically meaningful to investigate the distinct roles of business groups—more specifically, the interplay between business groups and the institutional environment—in the market-oriented institutional transition of these economies. The dissertation devotes itself to investigate fundamental mechanisms that underline business groups' interactions with the institutional environment during the market-oriented institutional transition by establishing an integrated framework of institutional embeddedness renewal, and econometrically analyzing the resultant performance implications for business groups.

**Research Theme and Conceptual Work**

In Chapter 1, my main task is to contrast the environmental determinism in mainstream studies by pointing out that the nature of the interrelationship between business groups and the institutional environment is mutually shaping. Particularly, I focus on business groups' purposeful efforts to influence institutional structures to arouse market-oriented changes that shape them as paragon agents for the market-oriented institutional transition. I propose a set of research questions that constitutes this central research theme, which are theoretically addressed and empirically explored in the following chapters.

In Chapter 2, I establish a general conceptual framework to operationalize the proposed research questions. Taking an institutional strategy perspective, I extend the concept of embeddedness into complicated contexts of market-oriented institutional transition in which roles of business groups are shaped. First, I propose a dual-process model of institutional embeddedness renewal. I argue that systematic institutional

embeddedness phenomena can be treated as a collective institutional process leveraging isomorphic and other institutional mechanisms to increase the collective legitimacy around the chosen institutions, and at the organizational level, as the learning, creating and modifying of relevant rules, norms and routines that vary in their degree of market orientation. Second, I highlight that the implementation of institutional embeddedness renewal requires deliberate resource allocations and organizational adjustments inside the business group, which might increase the strategic difficulty in conducting business strategies such as diversification. Third, I notice that the institutional embeddedness renewal study can be further enriched by adding analyses of population dynamics within business groups. I identify two important organizational features characterizing business groups' institutional-embeddedness-renewing capabilities and tendencies (political embeddedness and market-oriented autonomy). I argue that an investigation of failure likelihoods of business groups initiated with different organizational features can further provide evidence for revealing mechanisms underlining institutional embeddedness phenomena of business groups in given institutional settings.

**Empirical Work**

China is a model illustration of market-oriented institutional transition. Using a real experimental setting of Chinese business groups during the period of enterprise reform and market liberalization and the textile industry as the specific industry background, I conduct a set of empirical analyses to examine the proposed fundamental mechanisms concerning business groups' interactions with the institutional environment during the market-oriented institutional transition.

The empirical part of the dissertation consists of three empirical studies (Chapters 3–5), with a common focus on performance implications of business groups'

institutional-embeddedness-renewing actions and organizational features and institutional conditions that support/hinder this. In each chapter of the empirical work, I further operationalize the general conceptual framework of institutional embeddedness renewal by blending it with carefully-designed analytical frameworks.

Chapter 3

The first chapter adopts the dual-process model to evaluate the impact of institutional embeddedness renewal on the performance of business groups during the market-oriented institutional transition. I further provide an analytical framework to address the effects of institutional embeddedness renewal at the collective level and at the organizational level, by defining the collective-level and organizational-level measures of new (more-market-oriented) and old (less-market-oriented) institutional embeddedness to capture the process of institutional embeddedness renewal. I empirically analyze the proposed effecting mechanisms in the context of China, employing data on 38 business groups from the Chinese textile industry during the period 2000–2008.

The results of the econometric analysis support an optimistic view that business groups can strategically renew their institutional embeddedness during the market-oriented institutional transition. Specifically, I find that at both the collective level and the organizational level, the institutional embeddedness around the new institutions affects the performance of business groups positively. This suggests the situation in which business groups enhance their performance by adhering to new institutional structures. Besides, the institutional embeddedness around the old institutions also brings positive effects. This result suggests the need for business groups to maintain their embeddedness in old dominant institutional structures to support their institutional-embeddedness-renewing strategies and competition in

market. This chapter contributes to the literature by revealing important strategic issues of how business groups manage their interactions with the institutional environment during the market-oriented institutional transition.

Chapter 4

Chapter 4 investigates the likelihood of failure of business groups in the Chinese textile industry during the 2000s and institutional contingency of the survival mechanisms. In contrast with the previous chapter, this chapter places more focus on important organizational features that characterize business groups' capabilities/tendencies to interact with the institutional environment during the market-oriented institutional transition. Specifically, this study introduces a working taxonomy to classify business groups in China by the political dimension (either by state ownership or by political rank). On the basis of this, this study operationalizes the empirical research purpose as to compare the distinctions in the failure likelihood between highly politically embedded business groups (namely, state-owned business groups and national and provincial business groups) and their counterparts (namely, collectively owned business groups and sub-provincial business groups). Furthermore, the institutional differences across China's subnational regions (measured by supportive policies and marketization) are utilized to capture institutional contingencies of the effect of the proposed organizational features.

Using data on 48 Chinese textile business groups during the period 2000–2008 and adopting the Cox proportional hazard model as the estimation method, organizational failure likelihoods of these business groups are analyzed. The results from the Cox regression analyses show that: (1) business groups with high political embeddedness (and simultaneously, low market-orientated autonomy) have high failure likelihoods; (2) these highly politically embedded business groups are less likely to fail both in

provinces where supportive policies have been implemented comprehensively, and in provinces characterized by a high degree of marketization. These results support the view that in an incremental market-oriented, government-guided institutional transition as in China, the general trend of the population dynamics within business groups is market-oriented; business groups with deep political embeddedness can prosper in particular environments as the product of interactions with the government and the marketization pressure.

Chapter 5

In this chapter, using the 2001–2005 data on listed firms from the Chinese textile industry, I estimate the diversification effects of all firms in the sample and the differences in the diversification effects between group-affiliated firms and their independent counterparts. The purposes of the chapter are multiple: first, to verify the findings of previous studies on firm diversification and group affiliation in emerging economies in a novel empirical setting as in this study; second, to explore possible influence of the institutional embeddedness renewal of business groups, given the fact that Chinese business groups in the period were experiencing the renewal of their governance structures (e.g., incremental listing) that involved their listed affiliates deeply. In short, by using this novel empirical setting, I look forward to enrich findings from my empirical analysis by incorporating institutional embeddedness renewal considerations.

The results suggest that the dominant influence of institutional environments exists and leads to a homogenous trend in the diversification effect; that is, unrelated diversification positively affects performance of all firms in the sample. Group affiliation has complicated impacts on the diversification–performance relationship of the listed firms. Group-affiliated firms are more successful in pursuing unrelated

diversification when compared with independent firms. Furthermore, it is found that group-affiliated firms perform related diversification worse than their independent counterparts. These results on the effects of group affiliation produce insightful findings when interpreted with institutional embeddedness renewal considerations: (1) the performance advantage from unrelated diversification suggests that business groups' institutional embeddedness renewal may contribute to the persistence of the comparative strength of group affiliation; (2) the concurrent low outcomes from related diversification however suggests that the resource allocations and organizational adjustments associated with the institutional embeddedness renewal process—specifically, the incremental listing—disrupt the interrelations inside the business group and therefore hurts the fundamental foundation for the realization of related diversification's value-creation tendency. These findings illustrate the possibility that institutional embeddedness renewal can be utilized as a general view for the study of business strategies and business groups.

## Conclusions

The final chapter, Chapter 6, summarizes the implications of the proposed conceptual framework of institutional embeddedness renewal and empirical work for theory, business and public policy in emerging economies where market-oriented institutional transitions are undergone. Finally, I discuss the limitations of empirical studies in this dissertation and directions for future research on business groups in emerging economies.

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## List of Abbreviations

| | |
|---|---|
| CEI | China Economic Information Network |
| CGCA | China Group Companies Association |
| COBG | Collectively Owned Business Group |
| COE | Collectively Owned Enterprise |
| CSIC | Chinese Standard Industry Code |
| CSRC | China Securities Regulatory Commission |
| FDI | Foreign Direct Investment |
| HPEBG | Highly Politically Embedded Business Group |
| IBVBS | Institution-Based View of Business Strategy |
| IER | Institutional Embeddedness Renewal |
| IJV | International Joint Venture |
| JSC | Joint-Stock Company |
| LLC | Limited Liability Company |
| LPEBG | Lowly Politically Embedded Business Group |
| MNC | Multinational Corporation |
| MOIT | Market-Oriented Institutional Transition |
| NBSC | National Bureau of Statistics of China |
| NDRC | National Development and Reform Commission |
| NERI | National Economic Research Institution |
| NPBG | National and Provincial Business Group |
| SASAC | State-Owned Assets Supervision and Administration Commission |
| SOBG | State-Owned Business Group |
| SOE | State-Owned Enterprise |
| SPBG | Sub-Provincial Business Group |
| WTO | World Trade Organization |

# Chapter 1

# Introduction

## 1.1 Business groups in market-oriented institutional transitions

Business groups are an organizational form that prevails in many emerging economies in Asia and other regions (Carney, 2008; Khanna and Yafeh, 2007). Business groups typically consist of legally independent firms that "are bound together by persistent formal (e.g., equity) and informal (e.g., family) ties" (Khanna and Yafeh, 2007, p. 331). The population of business groups includes a variety of subspecies such as *Business house* in India, *Chaebol* in South Korea, *Qiye-jituan* in China, *General Corporation* in Vietnam, and *Grupos economicos* in Latin American countries (Abegaz, 2005; Granovetter, 1995). These influential organizations have a significant presence in the economic landscape of these economies. For example, in China, business groups contributed almost 60% of the country's industrial output (National Bureau of Statistics of China [NBSC], 2000a; Yiu et al., 2005).[1]

On the other hand, the institutional transition sweeping these economies is characterized by their particular emphasis on developing market-enhancing institutions.[2] To a large extent, many of these fundamental changes during the

[1] See Heugens and Zyglidopoulos (2008) for an overview of the economic presence of business groups in emerging economies.
[2] Using the term "institutional transition", I refer to "fundamental and comprehensive

market-oriented institutional transition (MOIT), either to formal institutions such as corporate governance systems or as new organizational templates and practices being created in informal institutional fields, would be less possible without the involvement of business groups known as a major incumbent organizational form. However, Just recently, strategic management scholars were beginning to notice the tremendous influence of business groups on the institutional transition (Carney, 2008; Heugens and Zyglidopoulos, 2008; Khanna and Yafeh, 2007).

In particular, scholars have argued about possible situations in which business groups can be promoters that lead the way in experimenting and introducing new market-enhancing rules and procedures. This might be the case of business groups in China, which serve as "an intermediary institution that would facilitate the enterprise reform, and, thereby, the economy transition" (Yiu et al., 2005, p. 188), or, Korean business groups in the period after the 1997 Asian financial crisis when a set of reforms were initiated to enhance market liberalization and corporate governance in Korea (Kim et al., 2010), or, Indian business groups that act as a device of institutional innovation by realigning their members' values and norms towards a market focus in a more bottom-up way (Ramaswamy et al., 2011).

These arguments call attention to the theoretical and practical implications of systematic institutional movements of business groups, and promisingly, bring about a critical theme for the strategic management study of business groups to query whether the interactions between business groups and market-oriented institutional transition have been sufficiently addressed in the literature.

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changes introduced to the formal and informal rules of the game that affect organizations as players" (Peng, 2003, p. 275) in the emerging economy, to distinguish distinct institutional changes in specific institutional structures or organizational fields (e.g., corporate governance reform within business groups in one country).

## 1.2 Analyzing performance of business groups in market-oriented institutional transitions

Over the past several decades, there has been a vast volume of studies on business groups from management and other disciplines. Many strategic management researchers concentrate their research on seeking for business-group-specific competiveness relative to other business organizational forms (typically, independent firm) in emerging economies (e.g., Chang and Choi, 1988; Chang and Hong, 2000), leaving the complex institutional contexts that confront business groups left largely unaddressed. To a certain extent, such approach facilitates the danger of an overemphasis on the organization side—"pure" organizational features and strategic patterns—of the business group–institutional environment interrelationship.[3]

Against this, the most remarkable development in the literature during the past two decades is probably the increasing prevalence of studies adopting institution-based perspectives (e.g., Carney and Gedajlovic, 2002; Chung, 2002; Kedia et al., 2006; Khanna and Palepu, 2000; Kim et al., 2010; Lu and Yao, 2006; Ramaswamy et al., 2011). Among them, a most influential strand might be the institutional-voids school. The concept of *institutional voids* is introduced into the business group literature mostly through the efforts by Khanna and his colleagues (Khanna and Palepu, 1997, 2000; Khanna and Rivkin, 2001; Khanna and Yafeh, 2005, 2007), who seek to describe business group as a solution to institutional voids—market imperfection and absence of market-supporting institutions—in emerging economies. The

[3] This approach is criticized to be "anchored in a structure–conduct–performance hypothesis testing tradition that was developed by scholars to examine the performance of freestanding firms in a North American context" (Carney, 2008, p. 610). For example, an influential scholar in this strand concludes that business groups are merely a general form of conglomerates (large diversified corporations) in developed economies (Chang, 2006). Obviously, it is questionable that one can explain how much of the competiveness of business groups by such a "pure" organizational structure feature.

institutional-voids view hypothesizes that business groups can formalize their competence by creating efficient internal markets to fill up institutional voids, which will improve the outcome of business strategies that business groups choose to conduct. In essence, they argue that the potential value of business strategies is fundamentally determined by the institutional environment.[4] Due to this, the institutional voids arguments and a number of previous studies can be classified into a broad umbrella of the so-called "institution-based view of business strategy" (hereafter, IBVBS; Peng, 2002, 2003; Peng et al., 2005).

Obviously, empirical search for competitive advantages of business groups has produced results complicated than what the IBVBS had assumed. It is observed that positive "business group effects" may exist, but highly contingent on institutional specifics such as national settings (Khanna and Rivkin, 2001; Khanna and Yafeh, 2005; Lins and Servaes, 2002) and time periods of the institutional transition (Choe and Roehl, 2007; Lee et al., 2008). Such mainstream perspectives have been widely drawn on to demonstrate major phenomena relevant to business groups, always in a similarly environmentally deterministic way.[5] These seemingly endless institutional contingencies do provide some "immediate" rationales for analyzing sources of business group effects. However, if the influence of business groups on the institutional environment remains assumed away, synthesizing these fragmented logics in the framework of IBVBS will be in large part theoretically redundant and practically meaningless (Khanna and Yafeh, 2007).

Why does the mainstream literature continue to ignore the capability and motivation of business groups to influence the institutional environment for

[4] In other words, the institutional contingency of business strategies.
[5] A typical example might be the reasoning about "temporal decrease" of business groups' advantages (see Appendix to Chapter 1 for the debate in details).

intentional changes? Nominally, this negative attitude is caused by an overemphasis on the institutional environment–usually referred to as the socioeconomic framework at country level (Peng, 2003). They treat the institutional environment as the dominant force shaping "standard" strategy patterns, organizational structures, and therefore performance of business groups, but leaving business groups merely as bystanders outside the game. However, a more fundamental reason is the lack of theoretical understanding of "nonmarket strategies" of the organization to influence rules of the game (*institutions*), and a framework to integrally address the executing procedure, effecting mechanisms, and influence of these strategies on institutional transition.

## 1.3 Scholarly contribution of the study

The aforementioned arguments motivate the theoretical exploration and empirical investigation that consist of this dissertation. In contrast with extant mainstream studies, in this dissertation, I emphasize the autonomy and significance of business groups in shaping the institutional environment. Business groups might establish their competencies either through being "paragons" or as "parasites" (Khanna and Yafeh, 2007), which can be represented more definitively by the notion of institutional strategy (Lawrence, 1999). I place stress on their (possible) purposeful efforts to exert influence on institutional structures to embrace market-oriented changes. Specifically, I hope to clarify fundamental mechanisms that shape these institutionally-embedded agents as faithful promoters of the market-oriented institutional transition and the resultant performance effects, to fill the gaps in the literature of business group study.

As the mainstream literature does not provide a definitive approach or sufficient insights into this theme, I turn to pioneer research in the business group literature and the institutional theories—i.e., embeddedness (Granovetter, 1995), market-oriented

autonomy (Yiu et al., 2005), and business group–institutional environment interaction (Lu and Ma, 2008)—to build an integrated theoretical framework with which to delineate important mechanisms relevant to institutional strategies that business groups execute during market-oriented institutional transitions. The dissertation is constructed around a set of interrelated research questions.

- *How to theorize the fundamental mechanisms shaping a possible paragon role of business groups in promoting the market-oriented institutional transition?* Viewing business groups as institutionally embedded agents, I theoretically address this as a systematic institutional process, *institutional embeddedness renewal (IER*), by which business groups individually and collectively renew their institutional embeddedness by implementing specific market-oriented institutional strategies, and also as a product of important interactive organizational features. By proposing the process of institutional embeddedness renewal and organizational features and institutional conditions that enable/hinder this, it is possible to predict the resultant performance implications for business groups in a given institutional setting (Chapter 2).
- *Can business groups improve their performance by implementing institutional embeddedness renewal?* This is a question concerning the effectiveness of institutional embeddedness renewal. We can therefore extend previous discussion on business groups' competitiveness in mainstream literature, specifically, by examining the relationship between measures of renewed institutional embeddedness of business groups and their performance (Chapter 3).
- *How about the failure likelihoods of business groups with different capabilities/tendencies to interact with the MOIT (characterized by specific organizational features)?* This question provides another new approach by which

to reveal the formalization of institutional embeddedness renewal (and therefore the paragon role) of business groups in a given institutional environment by incorporating an organizational ecological view (Chapter 4).

- *Will the institutional embeddedness renewal of business groups influence the outcome of their business strategies (e.g., diversification)?* By this question, on the one hand, I hope to further address strategic issues of institutional embeddedness renewal at the organizational level (inside the business group), and on the other hand, to highlight my critical attitude against the mainstream literature by examining the effect of business strategies interwoven with the institutional embeddedness renewal process (Chapter 5).

These questions outline a framework that I hope can prove fruitful in better accounting for the strategic aspect of the interplay between business groups and the institutional environment during market-oriented institutional transitions. Studies in this dissertation will contribute to build our understanding on business groups in a holistic way. A major purpose is to empirically demonstrate causal links between explanatory variables (market-oriented institutional strategies, organizational features and institutional conditions) and performance of business groups. Given the highly contextualized nature of business groups as embedded agents in the institutional transition, the empirical determination of these causal links is complex even at the best of times (Carney et al., 2009a). I set China as a distinctive institutional context within which to address the aforementioned empirical questions by examining carefully-designed hypotheses and questions. China is a typical example of incremental market-oriented institutional transition, which provides a suitable experimental setting for the research theme above, where it is hypothesized that business groups "can be active agents in the change process, helping shape

institutional pressures in a coevolutionary fashion" (White et al., 2008, p. 227). To conduct the econometric analysis, I refer to governance structure renewal (in the Chinese context, enterprise reform) as a distinct institutional field of market-oriented institutional strategy, as corporate governance is a central issue for emerging economies (Roth and Kostova, 2003), even those at late stages of transition to a market economy (Kim et al., 2010). In general, the findings from my econometric analyses provide sufficient support to the optimistic view that business groups can play as active agents for market-oriented institutional transition to coevolve themselves with the fundamental institutional changes in an emerging economy as China. Moreover, the framework developed in this study can thereby be proven fruitful in better accounting for mutually shaping phenomena between the institutional transition and central incumbent business organizations, which I hope to be extend beyond business groups.

## 1.4 Structure of the dissertation

The remainder of the dissertation is organized as follows. In Chapter 2, I propose a conceptual framework addressing the fundamental institutional embeddedness renewal process, critical organizational features, and (collectively constructed) institutional environmental characteristics that jointly shape the strategic aspect of how business groups can be shaped as notable agents for market-oriented institutional transition. This is further complemented by objectifying important contextual factors—distinct institutional strategy forms, characteristics of institutional transition, and competition in the industry—to prepare necessary research settings for examining the induced causal relationships.

The proposed conceptual framework is demonstrated by three empirical investigations (Chapters 3–5), specifically, using a real experimental setting of Chinese business groups during the period of enterprise reform and stock market liberalization and the textile industry as the selected industry background. Focusing on the economic effectiveness of institutional-embeddedness-renewing strategies, Chapter 3 empirically analyzes the effect of institutional embeddedness renewal on the performance of business groups in the context of China. It examines the proposed hypotheses employing data on 38 Chinese business groups in the textile industry during 2000–2008. The empirical results of the econometric analysis support an optimistic view that it is possible for business groups to improve their economic performance by renewing their institutional embeddedness during market-oriented institutional transitions (i.e., during the 2000s period in China).

Chapter 4 places more weight on important organizational features and institutional conditions underlying the prosperity of business groups during market-oriented institutional transitions. Empirically, it examines the relative failure likelihood of business groups initiated with high political embeddedness (and simultaneously, low market-oriented autonomy) compared with their counterparts, and the institutional contingency of such interactive organizational mechanisms, in the context of China. The results of Cox regression analyses using data on 48 business groups from the Chinese textile industry during 2000–2008 show that the general trend of the population dynamics within these business groups is market oriented–business groups with high political embeddedness fail more; such a disadvantageous position of these highly politically embedded business groups weakens in institutional environments with strong government support and high degree of marketization.

Chapter 5 illustrates how institutional embeddedness renewal, as a perspective, can add critical insights to conventional research on business strategies (such as diversification) and the literature of business group study. Specifically, this chapter focuses on diversification outcomes of firms and the moderating impacts of group affiliation on these in the context of China. Employing the data on 62 listed firms (both group-affiliated firms and independent firms) from the Chinese textile industry (2001–2005), this study estimates diversification effects of these firms. The results indicate that group affiliation does moderate the diversification–performance relationship of these firms, but in such a way that is far more complicated than extant mainstream research had thought. This study provides enriched explanations by integrating the institutional embeddedness renewal as a theoretical lens.

Chapter 6, the final chapter of this dissertation, brings together the theoretical work and findings of the empirical investigation for answering the research questions described in Chapter 1. The chapter summarizes the implications of the theoretical work and empirical work, and discusses limitations of this research and directions for future research on the study of business groups.

# Chapter 2

# Research Framework and Research Setting

*In this chapter, I propose an integrated conceptual framework to address fundamental mechanisms by which business groups renew their embeddedness in institutional structures and the resultant performance effects. I describe rationales for choosing China and the textile industry as the institutional and the industry background for empirical investigation.*

## 2.1 The institutional strategy perspective

Conventionally, institutional theory insists that legitimacy, not "efficiency," guides organizational action (Lawrence, 1999; Scott, 1995). Similarly in the institutional change literature, although it is widely accepted that institutional change is the process by which agents seek to enhance their legitimacy and power within organizational fields (Hoffman, 1999; Kingston and Caballero, 2009), such legitimacy enhancement is seldom recognized as the result of intentional (i.e., performance-oriented) behavior of organizations, but is instead seen as a structurally contingent phenomenon caused by institutional change itself (Hargrave and Van de Ven, 2006; Lawrence, 1999; Oliver, 1991). In contrast to this taken-for-granted thesis of mainstream institutional theory, in

the strategic management discipline, legitimacy enhancement has been conceived as a product of intentional actions of exerting influence on institutional structures by which organizations (firms) acquire resources to improve their competitive advantage and overall organizational success (e.g., Lawrence, 1999; Peng, 2003; Peng et al., 2005; Phillips et al., 2000).

Such intentional actions can be represented more definitively by the notion of *institutional strategy* (Lawrence, 1999). Lawrence introduces the concept of institutional strategy, defined as "patterns of action that are concerned with managing the institutional structures within which firms compete for resources" into the strategic management discipline (Lawrence, 1999, p. 162). Lawrence places particular emphasis on how organizations (firms) within the institutional structure adopt, establish, and/or modify institutional logics to improve their competitive advantages intentionally.

Institutional strategies are first distinguished from *business strategies* that "remain within the competitive context",[6] and at the same time, interconnected with business strategies via resources (Lawrence, 1999, p. 169). On the one hand, institutional strategies can "improve a firm's competitive position and support its competitive strategies" (Lawrence, 1999, p. 169), by increasing legitimacy in the institutional field; on the other hand, institutional strategies depend on the resource provided by specific business strategies: for example, "membership strategy"—one of the institutional strategy forms proposed in his study—is thought to be connected with "leadership in

[6] Regarding the difference between institutional strategy and business strategy, Lawrence further interprets: "institutional strategy is not so much concerned with gaining competitive advantage based on existing institutional structures as it is concerned with managing those structures—preserving or transforming institutional standards and rules in order to establish a strategically favorable set of conditions" (Lawrence, 1999, p. 167). Meanwhile, scholars might use interchangeable terms: for institutional strategy, such as nonmarket or institution-based strategy (Peng 2003; Peng et al., 2005); for business strategy, such as market-based strategy (Peng, 2003) or competitive strategy (Lawrence, 1999).

the field" because the latter contains a "critical resource" for the membership strategy (Lawrence, 1999).

Lawrence's arguments imply that institutional strategy can bring benefit through legitimacy enhancement and the improved resource condition, but is also accompanied by cost caused by the need for necessary resources; an aggregate positive effect on organizational performance might be possible but only when the beneficial effect overcomes the associated cost. The effect of institutional strategy can, in part, be assessed by examining the impact of institutional strategies on the performance of the specific business strategies. Such an examination is of course empirically difficult in the real business world, as these causal relationships are highly contextualized, "depending on the relationship between a firm's competitive position and its institutional context" (Lawrence, 1999, p. 169).

In this respect, to apply the institutional strategy perspective to the analysis of business groups within the complicated context of market-oriented institutional transition (MOIT), we need a comprehensive theoretical extension. This task is accomplished by synthesizing this neoinstitutional perspective into main concepts relevant to the theme of this dissertation (see Figure 2.1).

## 2.2 An integrated conceptual framework

### *2.2.1 Institutional embeddedness renewal*

Given the significance of business groups in the transition of emerging economies to market economy, the relationship between business groups and institutional environments is fundamentally interactive and mutually shaping (Heugens and Zyglidopoulos, 2008). In this sense, the concept of "embeddedness" that reveals that economic action is essentially embedded in "concrete, ongoing systems of social

relations" (Granovetter, 1985, p. 487), provides an elegant theoretical lens to better understand business groups and their organization and strategy and the multifarious social relations and structures shaped by such interactive changes. However, it is also clear that with its roots in sociology, the embeddedness literature "has focused on the cultural, cognitive, political, and structural embeddedness of actors and institutions within broad social networks or society at large" (Le Breton-Miller and Miller, 2009, p. 1177), but has devoted little attention to strategic aspects of the embeddedness and the resultant performance consequences.

In the extant business group literature, a number of studies stand close to such a conventional embeddedness approach, in an attempt to relate the advantages of business groups to those dyadic or network relations considered important in the current institutional frameworks of emerging economies (e.g., Guest and Sutherland, 2010; Kedia et al., 2006; Keister, 1998, 2001). This is particularly reflected in their central concept of institutional relatedness (Kedia et al., 2006; Peng et al., 2005; Ramaswamy et al., 2011). Institutional relatedness, defined as "the degree of informal embeddedness with the dominant institutions in the environment that confer resources and legitimacy on the focal organization" (Peng et al. 2005, p. 623), is essentially a form of institutional embeddedness that is generally referred to as *interconnections between the organization and its institutional structures* (Baum and Oliver, 1992).

In this respect, institutional embeddedness reflects the static relationship between organizations and institutional environments, specifically, institutional structures. Institutional structures are "*sets of rules and standards*" (Lawrence, 1999, p. 167), in other words, gathering of formal and informal institutions that are "*the rules of the game in a society*" (North, 1990, p. 3; Peng, 2003, p. 275). Besides, market-oriented institutional transition refers to *fundamental and comprehensive changes introduced*

*to such institutional structures* to a market economy (Peng, 2003). To capture the dynamic interactions between business groups and the institutional environment, Zhang (2014) introduces the concept of institutional embeddedness renewal (IER). IER possesses critical characteristics that institutional strategies should have, and can be described as *the strategic, dynamic process by which organizations build embeddedness into new (more-market-oriented) institutional structures and quit from embeddedness in old (less-market-oriented) institutional structures*.[7]

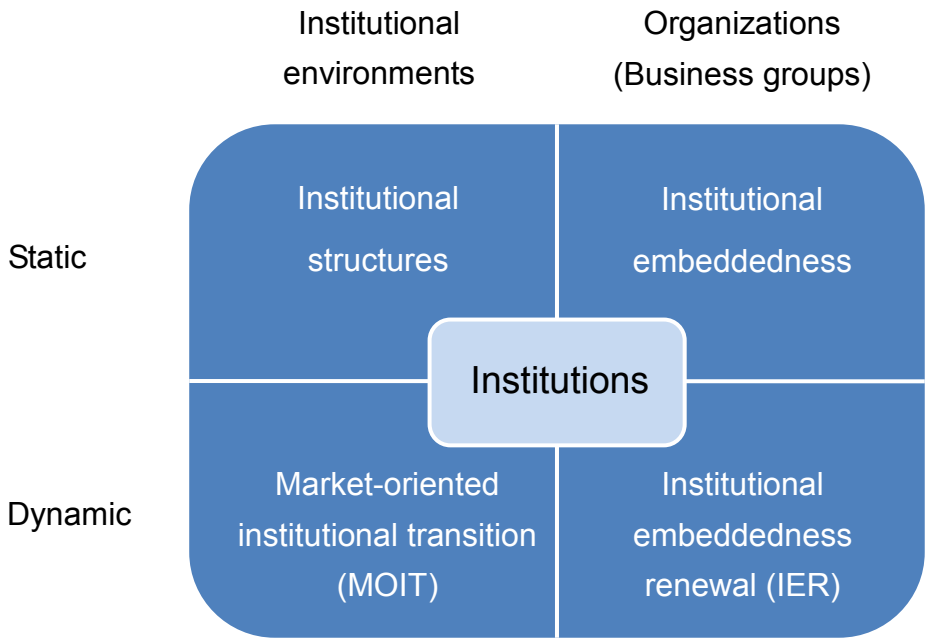



**Figure 2.1** Main concepts relevant to institutional embeddedness renewal

In the context of a typical MOIT, the potential of institutional structures in granting legitimacy and resource for organizations tends to differ in such a way that new more-market-oriented institutional structures should dominate the old less-market-oriented ones. Indeed, in the literature of business group study,

[7] From the viewpoint of institutional change (Suhomlinova, 2006), both the IER of business groups and MOIT in emerging economies are institutional changes. Therefore, one can understand the IER as *"MOIT" in business groups* to intuitively capture the dynamic interrelationship between business groups and the institutional environment in emerging economies.

researchers have tended to describe "paragons" as those business groups have established a coevolutionary relationship with the institutional environment towards a market focus (e.g., White et al., 2008; Yiu et al., 2005). Such a coevolution might suggest possible situations in which business groups successfully de-embed from old institutional structures and adhere to new institutional structures. Therefore, by conducting IER during the MOIT, business groups can have the chance to achieve an advantageous position in the institutional environment.

If business groups were able to manage the institutional structures in such a way, then there should be some identifiable effects associated with the IER. To investigate the effectiveness of IER of business groups during the MOIT, I focus on distinctive effecting mechanisms, first, of the process of IER and second, of fundamental organizational features that enable such a process.

### *2.2.2 The dual process of IER*

I propose a dual process model to demonstrates how organizations (business groups), in the MOIT context, can improve their competitive advantage in the market through institutional strategic processes both at the organizational level and in the inter-organizational field (Figure 2.2). IER motivates and enables organizations—in the context of this study, business groups—to manage the institutional structure, collectively and individually (Lawrence, 1999; Suchman, 1995). Naturally, the IER process should then be executed at two different levels: legitimating new, more market-oriented institutional forms and logics within institutional fields collectively; creating, modifying or adopting relevant institutions at the organizational level.

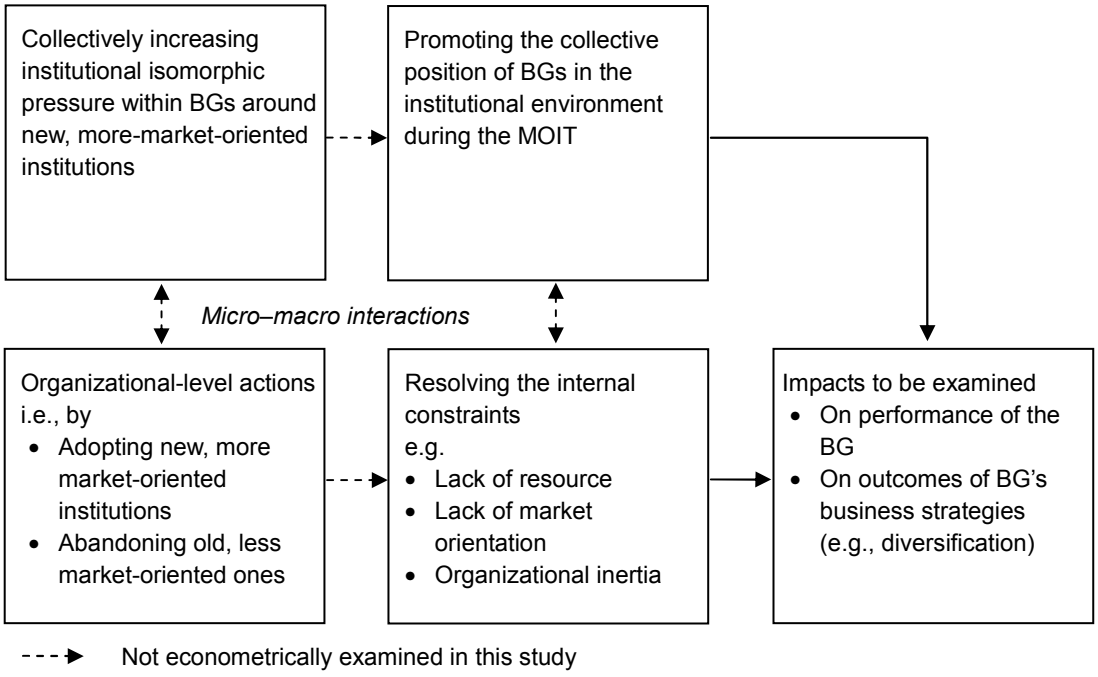



**Figure 2.2** Dual process of institutional embeddedness renewal

*2.2.2.1 At the collective level*

Business groups are dominant organizations in institutional structures of emerging economies. In this sense, Greenwood and Suddaby's (2006) arguments as below have important implications for incorporating institutional strategy perspective by addressing the process of IER for dominant organizations (business groups).

From a general resource-based viewpoint, Greenwood and Suddaby (2006) provide an example of the introduction of a new organizational form in professional business services, demonstrate how dominant organizations (international accounting firms) utilize their knowledge about, and positions in, interconnected old and new organization fields to exert influence on institutional structures: resources derived from their legitimacy and central position in the old mature organizational field are transferred to constitute the new organizational field; on the other hand, re-embeddedness into the new organizational field increases the "motivation to

change," which therefore lowers their embeddedness in the old organizational field (Greenwood and Suddaby, 2006, p. 27).

In the context of MOIT, successful IER is a systematic movement of business groups across different institutional structures: business groups lower their embeddedness in the extant institutional structure that supports less market-oriented institutional logics, and commit more to constituting a new structure that is in favor of more market-oriented institutional logics. To start with, within institutional structures, the purposeful actions that business groups undertake should link to the improvement of the legitimacy of market-oriented institutions. Given the boundedness of rationality (Simon, 1957) and highly uncertain institutional changes, business groups will seek to establish interconnections with other organizations to increase their knowledge about institutional change and decrease the cost of search and evaluation of alternative institutional logics.

Relatively, this is mostly likely to occur within the population of business groups because of their commonly shared norms, values, and socioeconomic ideology (Greenwood and Suddaby, 2006; Rodrigues and Child, 2003). This "within-community interaction" will then lead to collective behaviors of business groups in the form of an informal social network (Keister, 1998; Peng, 2003), or the founding of formal industry/professional institutions such as the China Group Companies Association (CGCA) whose major aim is to help its members—more than 150 of the largest business groups in China—to "adapt to a market economy" (CGCA, 2004; Ma, 2002, p. 127).

This turns the population of business groups into an organizational field, "a community of organizations that partakes of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors

outside the field" (Scott, 1995, p. 56). Within the organizational field, business groups may increase institutional pressure around new, more-market-oriented institutions by leveraging coercive, mimetic, and normative isomorphic mechanisms (Hargrave and Van de Ven, 2006; Seo and Creed, 2002). Consequently, utilizing such isomorphic mechanisms to establish "collective wisdom" will help to smooth the embeddedness renewing process of business groups; the increased pressure among business groups will thereby turn the community of business groups into a subfield within the institutional structures around the new, more-market-oriented institutions.

The collective efforts of business groups will then benefit them win the "battle of the standard," the competition with other interest groups (e.g., private firms and multinational corporations) surrounding the formalization of organizational practices and routines in either technical or social discipline (Rodrigues and Child, 2003). For this, business groups, like other central organizations in the organizational field, can also use the political resource embedded in these formal and informal institutions to negotiate with national or local governments to exert influence on "rules of the game" directly (Carney, 2008; Xavier et al., 2013).

In short, in the case of IER, the population of business groups might be viewed as a *community* that exercises an isomorphic process that can be guided in the direction of market focus (Kim et al., 2010), and within which market-enhancing common norms, values, and socioeconomic ideologies are more easily shared (Rodrigues and Child, 2003). Effective IER will improve the collective position of the community in the institutional environment, which brings effects for all individuals in the community as it activates resources locked in institutional structures for market-supporting purposes, reduces the systematic uncertainty in the MOIT, and accelerates the formalization of collectively shared beliefs to embrace further market-oriented changes.

*2.2.2.2 At the organizational level*

Essentially, these institutionally purposeful actions are unfolded around particular institutions to be created, modified, or discarded at the interest of the institutional strategy actor, and are therefore managed at the organizational level (DiMaggio and Powell, 1983). In this sense, at the organizational level, (de)embedding can be addressed as a sequential process through which business groups learn about, adopt or modify the relevant institutional forms and logics that they see as helping to sustain competitive advantage in an increasingly competitive environment (Crossan et al., 1999; Uhlenbruck, et al., 2003). Once the organizational-level IER process is begun—either by adopting market-oriented rules and norms or by innovating new practices—then, whatever the result of the execution, the status of business groups' internal resource and organizational arrangements need to be adjusted accordingly. As illustrated in Figure 2.2 (bottom-middle rectangle), the business group needs to resolve internal constraints such as lack of necessary resource and knowledge (Kedia et al., 2006; White et al., 2008), absence of market orientation and autonomy (Bhaumik et al., 2012), or organizational inertia hindering the motivation to re-embed in new institutions (Guillén, 2002; Kim et al., 2004).

Theoretically, the success in conducting organizational-level IER actions and resolving the internal constraints, will bring organizational-level IER effects reflected as the positive association between adopting relevant institutions and business group's performance. Even so, the result of such an empirical investigation is not immediately interpretable. This is because that the potential value of the market-oriented institutions that the business group chooses to adopt or abandon will depend on the characteristics of the institutional transition and the collective position of business groups within that (described as "micro-macro interdependence" in Figure 2.2).

*2.2.2.3 The resultant performance impacts*

Performance implications of IER can be holistically investigated by examining the impact of IER on, first, the performance (e.g., profitability) of business groups and second, the outcome of distinct business strategies. These examinations have different theoretical emphases on revealing the strategic aspect of the IER of business groups.

The examination of impacts of IER on performance of business groups is useful to evaluate the effectiveness of IER, as it essentially verifies the significance of effecting mechanisms of IER within the community and at the organizational level. The dissertation dedicates a separate chapter to investigate the extent to which business groups in the given institutional setting have successfully conducted a systematic IER or stuck into the opposite situation, *overembeddedness* in old, less-market-oriented institutional structures (Zhang, 2014 [Chapter 3]).

In contrast, examining impacts of IER on the outcome of distinct business strategies contributes more to understanding the strategic difficulties in conducting IER. First and institutionally, similar to the institutions adopted by business groups as illustrated by the "micro-macro interdependence" in Figure 2.2, the potential value of business strategies is also certainly conditioned on characteristics of the institutional environment and the collective position of business groups within this.[8] Second and organizationally, for business strategies, particularly those organizationally dependent ones, one critical task that the business group needs to handle is the cost caused by resource allocation and organizational adjustments associated with the IER. A separate chapter is devoted to revealing such strategic difficulties of IER by focusing on diversification as the distinct business strategy (Zhang, 2011 [Chapter 5]).

[8] The collective position of business groups is the product of their IER strategies. In this sense, examining the performance outcomes of business strategies provides—to some extent, indirectly—evidence to verify the effectiveness of IER of business groups.

### *2.2.3 Fundamental organizational features facilitating or impeding IER*

In previous subsections, IER has been described as a continuous process heading for the desired, more-market-centered end-state (Roth and Kostova, 2003; Suhomlinova, 2006); such a renewal process is naturally unfolded both within institutional fields and at the organizational level (Figure 2.2). However, on the other hand, the proposed model does place more focus on a "process" aspect and on the relative position of business groups in institutional structures during the MOIT. To complement this, I suggest investigating important organizational features that characterize business groups' capabilities and potentials to conduct IER actions. In the literature, several researchers have mentioned such organizational features that facilitate or impede business groups' involvement in embracing market-oriented institutional changes (e.g., Bhaumik et al., 2012; Lu and Ma, 2008; Yiu et al., 2005).

#### *2.2.3.1 Political embeddedness*

Political embeddedness—either reflected as relational ties connecting business groups with dominant political powers or positions of business groups in political fields—has been considered as an important interactive organizational feature explaining the lack of capabilities/tendencies to be institutional entrepreneurs (Carney, 2008; Peng et al., 2005).

Theoretically, the embeddedness of business groups in mature institutional structures may put these powerful incumbent organizations in an embarrassing situation of "how and why actors shaped by (i.e., embedded within) institutional structures become motivated and enable to promote change in these structures" (Greenwood and Suddaby, 2006, p. 27), which constitutes the so-called "paradox of embedded agency" in institutional theory (Seo and Creed, 2002; Uzzi, 1997). On the

one hand, as a time- and resource-consuming issue, IER is considered to favor dominant organizations because they usually possess substantial competitive advantage and legitimacy due to their central positions within current industry and institutional structures (DiMaggio and Powell, 1983; Lawrence, 1999), On the other hand, dominant organizations would be more likely to lack motivation to enact changes. Such contradictory reasoning seems to have been reproduced to typify the situation of politically embedded business groups.

Should they predictably end up with the paradox of embedded agency due to the path dependency? Can they settle the resource constraints and maintain the motivation to enact market-oriented institutional actions? Given the state-administrated characteristic of many emerging economies (e.g., China) and significant presence of politically embedded business groups in these economies, a holistic empirical investigation is needed.

*2.2.3.2 Market-oriented autonomy*

Business group researchers have recognized the fact that business groups in many emerging economies are initially endowed with certain autonomy to exert influence on institutional structure for market-oriented changes and persist this for a reasonable period of time (Kim et al., 2010; Ramaswamy et al., 2011; Yiu et al., 2005). This is practically evident if considering business groups' active roles in the history of socioeconomic reforms in these emerging economies as noted earlier. In the context of Chinese business groups, Yiu et al. (2005) argue that the market-oriented autonomy is a relatively commonality of business groups that emerge as the substitutions for institutional imperfections in emerging economies. Hence, in a subsequent research by them, they further argue that Chinese business groups "can be active agents in the

change process, helping shape institutional pressures in a coevolutionary fashion" (White et al., 2008, p. 227).

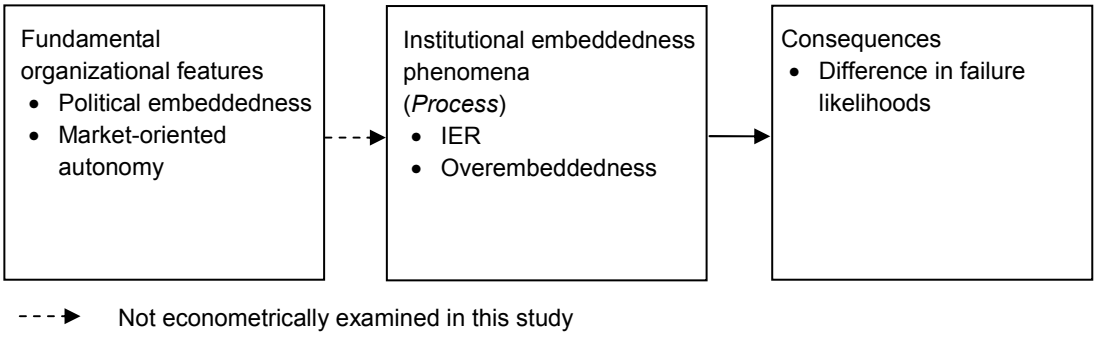



**Figure 2.3** Fundamental organizational features typifying IER

*2.2.3.3 Impacts on business group failure*

Impressively, previous studies seem to have noticed possible causal linkage between the fundamental organizational features characterizing business groups' interaction with the institutional environment and the resultant performance consequence. For example, for (heavily) politically embedded business groups, a IER process would be strategically difficult due to their persistent embeddedness in political regulatory framework and government relations (e.g., Carney et al., 2009b); for business groups with high market-oriented autonomy, their motivations and capabilities in embracing market-oriented changes to institutional structures considered to be an advantage (e.g., White et al., 2008).

From my point of view, an extensive investigation of the relationship between the status of these fundamental organizational features and the subsequent failure consequences is theoretically meaningful. Somewhat obviously, this can provide evidence for addressing the existence of systematic institutional embeddedness renewal within the population of business groups (see Figure 2.3). Mechanisms proposed in Figure 2.3 are demonstrated by an econometric comparison of

organizational failure likelihoods between two cohorts of Chinese business groups initiated with different organizational features (Zhang and Wang, 2014 [Chapter 4]).

### *2.2.4 Contextual factors needed to be considered*

Empirical examination of the proposed mechanisms is a challenging issue. Given the high complexity of the institutional transition in emerging economies, the IER is rarely able to produce beneficial effects that can be depicted in a simple way. A complete analytical design need consider the strategic, institutional and industrial contexts for enacting and executing IER strategies. Specifically, empirical investigations in this study have considered three crucial contextual factors, form of involved institutions, characteristics of the institutional transition, and industry background.

#### *2.2.4.1 Form of involved institutions*

Institution is the core that assembles concepts of the IER framework (see Figure 2.1). Lack of a focus on representative institutional forms will make a holistic examination of the collective-level and organizational-level institutional strategic mechanisms empirically unrealistic. This is particularly important for the investigation on the impact of processing IER on performance of business groups (Chapter 3). Specifically, Chapter 3 focuses on governance structures (e.g., enterprise forms and ownership concentration), a subset of formal and informal institutions related to corporate governance. Corporate governance is crucial to the transition to a market economy. It constructs an institutional framework both at the macro level as "external institutional/governance system," and at the organizational level, "guiding firms' activities" (Roth and Kostova, 2003, pp. 314–315). In the business group literature, business groups are found to have been active in continuously adopting new corporate

governance rules and norms to improve individual practice, promoting these market-oriented institutional logics within the institutional structure in transition economies such as that of China (Ma et al., 2006; Peng et al., 2007), but also in those emerging economies with more developed markets (Kim et al., 2010).

*2.2.4.2 Characteristics of the institutional transition*

Business groups' aptitude for market-enhancing institutions and their capability to enact institutional strategy are largely shaped by their participation in institutional changes in history. An incremental, more bottom-up MOIT might predict a probable institutional foundation for a preference towards market-oriented institutional logics (i.e., property rights) and entrepreneurship favoring IERs, which will persist for quite a long period (Roth and Kostova, 2003; Uhlenbruck et al., 2003). The stage of the MOIT needs to be considered too. While institutional entrepreneurship tends to persist across stages of the MOIT, resource endowments in the institutional structure will not. Generally, resource constraints would not be likely to become a serious problem in earlier periods of MOIT when sourcing resources by filling "institutional voids" is still relatively easy (Khanna and Yafeh, 2007). This, however, might become relatively difficult at later stages of MOIT (Kedia et al., 2006; Peng et al., 2005).

*2.2.4.3 Industry background*

Successful execution of institutional embeddedness renewing strategies will lead to enhancement of legitimacy and power in organizational fields, which can be converted into resources that contribute to improving the competitive position of business groups in the market (Lawrence, 1999). However, from an institutional structure of production perspective (Coase, 1992), the mechanisms of converting the institutional resource may vary with the specific industry competition context. At this

point, empirical investigations in this dissertation follow the convention in institutional studies (e.g., Cacciatori and Jacobides, 2005; Greenwood and Suddaby, 2006; Lawrence, 1999), and focus on a specific industry sector to avoid such an ambiguity and keep the model straightforward. Empirical analysis with a large cross-industries sample should be encouraged, but seems not to be rewarding at the present stage because the application of the institutional strategy perspective is still in its infancy in the literature.

To demonstrate the rationality of the proposed theoretical framework and analytical issues, I select China's MOIT and its textile industry as the distinctive institutional and industry contexts within which to develop testable hypotheses and questions.

## 2.3 Business groups in China's MOIT

I have three reasons for choosing China as the institutional context for the empirical investigation. First, China is known as a model illustration of incremental market-oriented institutional transition. Second, researchers commonly hold an optimistic attitude towards a systematic coevolution of Chinese business groups with the institutional framework in a market-enhancing direction (Carney et al., 2009a; Yiu et al., 2005; White et al., 2008). Third, it provides distinctive institutional background, such as enterprise reform and market liberalization which are utilized for our examination of the impact of IER on business group's performance and outcomes of their business strategies (Chapters 3 and 5).

### *2.3.1 Chinese business groups during the past decades*

A typical business group is a gathering of legally independent firms that are coupled together by formal and informal ties (Khanna and Yafeh, 2007). In China, business

groups had not been initiated as such "typical" business groups. Instead, they evolve to realize this as an ultimate goal: that is, to convert themselves into "modern" group corporations. Focusing on such governance structures renewal of Chinese business groups, the following subsections provide an overview of Chinese business groups in the past decades. To simplify the description, I divide the process into three periods, the 1980s, 1990s, and the period after 2000.

*2.3.1.1 The 1980s*

The history of Chinese business groups can be traced back to the end of the 1970s when their predecessors, the so-called "enterprise economic alliance (in Chinese, *qiye-jingji-lianheti*)", appeared to realize transaction cost-based advantages—increasing product capability, ensuring materials supply and an efficient approach to the consumer because the former planning economy had obstructed all of these—in large quantities (CGCA, 2004; Keister, 1998, 2001). Such a bottom-up organizational innovation fitted in easily with the Chinese government, which had been amazed by the vital role of Japanese keiretsu and Korean chaebol in promoting economic growth (Ma and Lu, 2005; White et al., 2008). The resultant consensus is reflected in a set of policies in the mid-1980s, which entitled not only the formal name of "business group (*qiye-jituan*)," but also gave legitimacy to these alliances in the economy (Keister, 1998, 2001; Ma and Lu, 2005).

An enterprise economic alliance is hardly a coupled organizational form with a distinctive governance structure. Business groups at this stage are described as "sacks of potatoes": gatherings of the so-called general factory (*zongchang*), and factory (*gongchang*) that are not companies in the modern sense and loosely coupled by non-property-right-based ties (e.g., transactional relationship). Consequently,

throughout the 1980s, Chinese business groups were seeking to realize their autonomy by supporting their members' attempts to separate from government and acquire legal person status.

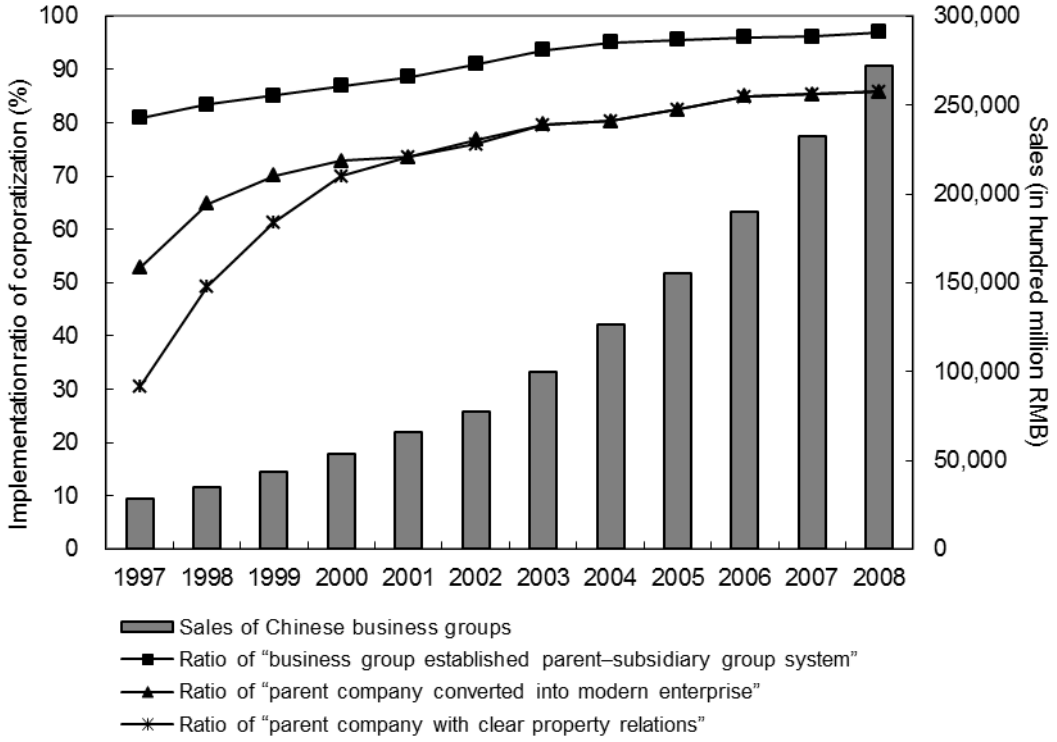
*2.3.1.2 The 1990s*

The 1993 Company Law raised the curtain on hypercompetition between business groups and these rival business organizational forms around their legitimacy and positions in both institutional and market spheres. This increased the motivation of business groups to facilitate the governance structure renewal process. A major task is to convert themselves from sacks of potatoes into group corporations (*jituan-gongsi*) that operate in the framework of property rights-based corporate governance institutions.

Chinese business groups adopted a gradual corporatization process, essentially by a continuous three-step process as described by the National Bureau of Statistics of China (NBSC): first, establishing parent–subsidiary vertical relationship in the group; second, converting the parent company, the core of the group, into a modern enterprise (adopting modern enterprise forms such as limited company and joint stock company) to conform to the requirement of the Company Law; then, ensuring that property relations between the parent company and the dominant owners (mostly, governments) and between the parent company and other member companies (business group affiliates) are more transparent.

Figure 2.4 delineates this incremental process clearly: among those business groups included in the NBSC list, in 1997 the ratios of those that had established a parent–subsidiary group system, had a parent company in a modern enterprise form, and were with clear property relations was 80.9%, 52.8%, and 30.4%, but by 1999

these had changed to 85.1%, 70.1%, and 61.3%, respectively. On the one hand, we can therefore say that by the end of the 1990s, the goal of converting business groups into group corporations has been partly achieved. However, on the other hand, this process has not yet completed as it is still needed to upgrade the governance structures to more-market-oriented versions that "emphasizes the new corporations' independence, profit-orientation, clearer property rights and good corporate governance" (Zhang, 2004, p. 2038).




**Source**: NBSC (2001b–2009b).

**Figure 2.4** The corporatization process and growth of Chinese business groups

*2.3.1.3 The 2000s*

The current period, after 2000, is seen as a mid-to-late stage in China's enterprise reform (Lau et al., 2007). China's entry into the World Trade Organization (WTO) in 2001 marks this new period with intense market competition among business groups

and rival organizations (e.g., state-owned enterprises [SOEs] and multinational corporations [MNCs]). As shown in Figure 2.4, the conventional governance structure renewal strategies—such as the three steps of corporatization—are still progressing, but at a relatively slow pace towards convergence. As argued by Uhlenbruck et al. (2003), the corporate transformation in transition economies could not be realized fully without converting those market-based rules and routines into organizational practices, and embedding them into the mindset of organizations and individuals. In this sense, governance structure renewal is becoming increasingly resource and time-consuming: the more market-oriented and complicated the institutional structure becomes, the more the IER strategy needs to be interrelated with, and dependent on the resource-creation of business strategies.

The increasing penetration of market-enhancing institutions in China increases the legitimacy of new governance structures that business groups have to choose (Meyer and Lu, 2005). One method is being public company listed in stock markets. This is a process by which business groups convert themselves into group companies ruled by more strict market-enhancing institutions. Moreover, this extended business groups' governance structure renewal into another important field of the MOIT in China–establishment and liberalization of stock market: since the reopening of Chinese stock markets in the early 1990s, business groups have been the major players (Ma et al., 2006).

### *2.3.2 Collective aspect of IER process of Chinese business groups: an example*

The aforementioned governance structure renewal process of Chinese business groups should not, however, be conceived as thoughtless draws by isolated individual business groups from given organizational templates available in an indulgent

environment. This is essentially institutional and collective. This can be illustrated by looking into how business groups collectively involved in establishing legitimacy of the "business group version" of these corporate governance forms, especially by organizing industrial and professional associations to promote market-oriented change. One typical example is the CGCA, one of the most influential associations of business groups in China. Since its establishment in 1987, the association has been consistently serving distinctive purposes, from urging association members to "adapt to a market economy" in 1990s (Ma, 2002) to "comprehensively promoting the strategic development of large Chinese corporations and groups of companies" currently (CGCA, 2010). Its distinctive board structure includes executive directors who are mainly top executives from those largest business groups in various industries while on the other hand, the honorary directors are (former) senior officials from the State Council, National Development and Reform Commission, and Ministry of Commerce. Given this, the CGCA seems to lack neither incentive nor political resources to engender institutional pressures to promote changes in governance structures.

In 2002, the CGCA began a project on business group governance structure. The major purpose is, as revealed in the report published later, to provide "practical solutions for business groups and advice on policy-making" (CGCA, 2004, pp. 3–4). According to this publication, the CGCA proposed a pragmatic perspective on important issues of governance structure reform (e.g., parent–subsidiary structure and partial listing): market-oriented governance reform should be supported, however it needs to be carried out in an incremental way as business groups were "still bearing the cost of performing social functions" (CGCA, 2004, p. 8).

The CGCA and their members were engaged in continuous negotiations, or even in conflict with other agencies that preferred more radical changes. This is the case in

encounters with the China Securities Regulatory Commission (CSRC) around governance issues during the process of partial listing. An example is chairman duality: since end of the 1990s, the CSRC has attempted to prohibit the chairman of the listed firm to concurrently serve as the legal representative (practically, chairman or president) in the shareholder companies (i.e., business groups), and issued several administrative notices to highlight this issue. The CGCA opposed these notices, and declared that they "noted this problem during investigation," and emphasized the possibility that "chairman duality does not hurt listed firms, but contributes to improving relations between the parent and listed firms"; and more aggressively, queried the legitimacy of these notices as "improper," declared that it was a "worthy discussion, that needs to be improved in practice"—a euphemism for refusal in Chinese (CGCA, 2004, p. 26). I have no further information on the issue of chairman duality. However, we do know the ultimate status: the relevant notice was abolished in 2007 while chairman duality, as well as chief executive officer duality, has become prevalent in listed Chinese firms (Peng et al., 2007). Moreover, in respect of business group-favoring policies—such as investment and financing rights, priorities to establish finance companies and entitled research and technology centers—which were often picked up in previous studies and considered "endowed government resources" (e.g., Guest and Sutherland, 2010; Yiu et al., 2005), the CGCA acknowledged that these are, at least partially, trophies of business groups' collective efforts (see CGCA, 2010).

## 2.4 Important settings for the empirical investigation

### *2.4.1 Subnational regional institutional differences*

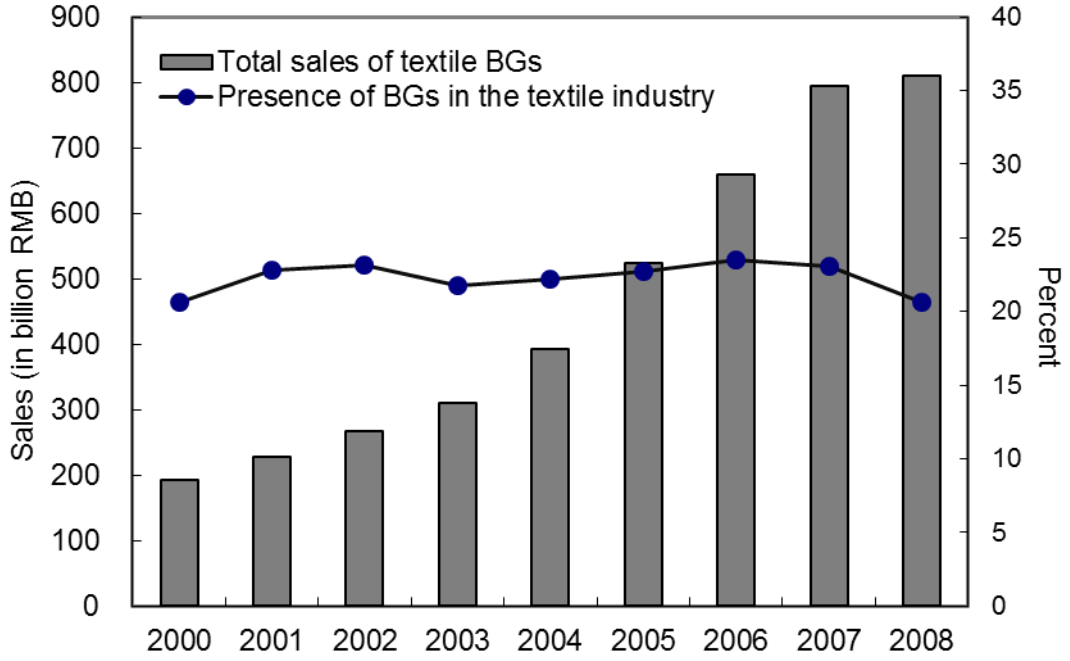
In the IER framework, the within-community isomorphism has been treated as a fundamental mechanism to shape an active role of business groups during

market-oriented institutional transitions. However, how best to represent the interactive aspects of the community of business groups is not immediately obvious. The Chinese socioeconomy is conceived as an M-form "regional organization" (Qian et al., 1999). Dynamics at subnational regional level constitute a significant portion of, and add to the bottom-up tendency of, China's market-oriented institutional transition (Shi et al., 2012). To form an organizational field, there need to be critical issues "that become important to the interests and objectives of a specific collective of organizations" (Hoffman, 1999, p. 352). Correspondingly, for governance structure change, the subnational region (specifically, province) can be viewed as the specific organizational field in which business groups, rival organizations (e.g., SOEs) and governments interact to share institutional logics. Put another way, utilizing the significant variance of interactive characteristics in regions in China, we can quantify these interactive characteristics (e.g., marketization degree and corporatization of business groups) and examine the resultant organizational outcomes (e.g., economic performance and organizational survival). This is distinguishable from prior research that has relied heavily on chasing temporal changes or exogenous shocks, which has obvious drawbacks particularly when such punctuations are absent (Kim et al., 2010).

### *2.4.2 Industry background*

The textile industry[9] is chosen as the competitive environment within which to examine the predicted mechanisms regarding IER of Chinese business groups.

[9] Following previous studies on textile industries (e.g., Brandt et al., 2008; Colpan, 2008) and Chinese official definitions (China Economic Information Network [CEI], 2004), empirical studies in the dissertation have adopted two practical definitions. A narrow-spectrum definition of textile industry focus on manufacturing, including 2-digit CSIC sectors such as Textiles (CSIC 17), Apparel, footwear, and caps (CSIC 18), Leather, fur, feather, and related products (CSIC 19), and chemical fibers (CSIC 28). A broad definition covers both textile manufacturing and upstream and downstream sectors (e.g., Textile wholesaling and Chemical product manufacturing).




**Source:** The *China Statistics Yearbook* (NBSC, 2001a–2009a) and the *Large Corporations of China* (NBSC, 2001b–2009b).

**Notes:** "Total sales of textile BGs" is the aggregation of sales of business groups in the textile manufacturing sector (CSIC 17, 18, 19, and 28); "Presence of BGs in the textile industry" was calculated by dividing "Total sales of textile BGs" by "Total sales of the textile industry" which is the aggregation of main business sales of designated enterprises (complied with the NBSC's requirements) in the textile manufacturing sector.

**Figure 2.5** Business groups in the Chinese textile industry, 2000–2008

The Chinese textile industry during China's MOIT can be referred to as representing a reasonable industry setting.

- The Chinese textile industry is a major sector of China's industries, representing almost a tenth of the gross value of industrial output in 2005 (Brandt et al., 2008, p. 588), showing continuous growth over the past decade (see Figure 2.5). The continuous growth of the textile industry decreases the systematic uncertainty of exploring and shifting between institutional templates (Uhlenbruck et al., 2003), therefore increasing the heterogeneity of effecting institutional strategic mechanisms during the MOIT.

- The trend in the textile industry is found to be consistent with the overall trend of business groups' evolution in the economy. Generally, a moderately incremental trend of adoption of new institutional forms is presented in the 2000s. For example, regarding the process of converting business groups into listed group companies, such an incremental market-oriented trend is clear. In 2001, among 124 large business groups in the four two-digit CSIC industries in the textile manufacturing sector (CSIC 17, 18, 19, and 28) as reported by the NBSC (NBSC, 2002a), 39 had issued shares on domestic stock exchanges, contributing total sales of 91.1 billion RMB, which accounts for approximately 46% of the aggregate revenues of all business groups in the industry. In 2004, the ratio of sales of partly listed business groups in the total sales of all textiles business groups was increased to 52% (NBSC, 2005a).
- I also believe that one major interest underlying this study, as many others in the literature, is whether and how business groups born in "old" socioeconomic structures can realize institutional renewal (of their internal governance system) and how this impacts on their competitive advantage in the increasingly market-based competitive and technologically evolving landscape of markets. The textile industry represents characteristics preferable to those of industries with fewer players or more regulation (e.g., automobile, energy, and petroleum), or more technology-driven newly emerging industries (e.g., pharmaceutical, software, and high-end equipment).

# Chapter 3

# Institutional Embeddedness Renewal of Business Groups and Performance Implications[10]

*This chapter focuses on performance effects of institutional embeddedness renewal (IER) of business groups during the market-oriented institutional transition (MOIT). Specifically, I apply the IER process model to the Chinese context and empirically analyze the proposed hypotheses using data of business groups from the Chinese textile industry during the 2000s.*

## 3.1 Analyzing the effectiveness of IER

### *3.1.1 IER as a systematic institutional embeddedness phenomenon*

The previous chapter proposes a process model that describes the IER of business groups as a dual process at both the collective and the organizational level. It is argued that if business groups can success in increasing legitimacy of the chosen institutions within organizational fields and resolving the internal constraints at the organizational level, IER will bring multiple effects that are reflected in two forms: first, as the

[10] Zhang, Qiang (2014), "Institutional embeddedness renewal or overembeddedness: the case of business groups in China", *Asia-Pacific Journal of Business Administration*, Vol. 6 No. 2, pp. 148-167.

collective advantage of business groups as a community in the institutional framework; and at the organizational level, as an effect on business groups' performance by adopting relevant institutions coinciding with the trend of the institutional transition.

At the core of these arguments lies the matter of how to understand business groups' renewal of the institutional contents of their embeddedness to enhance their legitimacy and competitive position in a continuously changing institutional environment. In essence, IER reflects a systematic movement of the population of business groups in the direction of a market focus.[11] Theoretically, in a given distinct institutional environment in which the MOIT is significant and business groups are prospering, the IER should be distinguishable from the opposing situation of *overembeddedness* (Hagedoorn and Frankort, 2008), in which business groups are trapped and rely on their involvement with the old, less-market-oriented institutions. Nevertheless, scholars have found that it is difficult to arbitrate between these opposing situations (Carney et al., 2011; Khanna and Yafeh, 2007), due to lack of a sound theoretical foundation and analytical framework.

The institutional strategy perspective provides an elegant theoretical foundation from which to address the distinctions between IER and overembeddedness. In either of these cases, a central issue is to leverage distinct isomorphic mechanisms (DiMaggio and Powell, 1983) to raise institutional pressure in the business group community. The isomorphic pressure arouses collective behaviors within the community during the MOIT will be initiating and coevolving with a collective institutional identity (Hargrave and Van de Ven, 2006; Polletta and Jasper, 2001). The collectively established institutional identity—either market-enhancing or

[11] I use the term "systematic" to emphasize that researchers need to examine the effects both within the community and at the organizational level.

market-undermining—manifested in preferences toward particular institutional forms and logics, will persist for quite a long period even independently of the pace of institutional transition (Roth and Kostova, 2003; Uhlenbruck et al., 2003). In this respect, the isomorphic pressure thus stimulated is therefore self-enhancing, turning the business group community into a territory around the chosen institutions and accounting for greater commitment to the furthering of the (de)embedding process. If deliberately effected, this within-community mechanism will be helpful to improve the collective position and competiveness of business groups in the institutional environment. Similarly, at the organizational level, business groups may achieve performance outcomes by learning about, adopting or modifying the relevant institutional forms and logics that they see as dominant force in their community and the institutional environment (Crossan et al., 1999; Uhlenbruck, et al., 2003). However, it is obvious that such actions of business groups are not always market-enhancing (as the case of IER); they can also be market-undermining or even hindering the MOIT (thereby the case of overembeddedness).

Therefore, despite sharing theoretical foundations, IER and overembeddedness are split over the driving force and specific effecting mechanisms underlying business groups' (de)embedding actions. Essentially, arguments supporting the former phenomenon tend to emphasize the significance of business groups' motivation and capability to keep embedding in the new, more-market-oriented institutions (White et al., 2008; Yiu et al., 2005); in contrast, the overembeddedness arguments tend to focus on institutional constraints impeding de-embedding from the old, less-market-oriented institutions (Peng et al., 2005). These distinctions will be naturally reflected as different relationships between the dual process and performance of business groups. In this sense, given a specific institutional setting, the effectiveness of IER of

business groups can be holistically examined by comparing the explanatory power of the competing arguments of IER and overembeddedness.

### *3.1.2 The analytical framework*

The process of IER can be captured by the renewed embeddedness in both the new (more-market-oriented) and the old (less-market-oriented) institutional structures. Therefore, the effectiveness of IER (distinctions between IER and overembeddedness) can be investigated by examining the relationships between the institutional embeddedness and the performance, as following:

$$\text{Performance of the business group} = f\left[\begin{array}{l}\text{Embeddedness of the community in new/old institutional structures}\\ ,\\ \text{Embeddedness of the business group in new/old institutional structures}\end{array}\right].$$

How to holistically capture the institutional embeddedness of business groups is critical for the current study. In this chapter, I focus on governance structure renewal of Chinese business groups and employ the data of business groups in the Chinese textile industry during the 2000s. To empirically demonstrate the effecting mechanisms of IER of business groups under the institutional environment, I propose an analytical framework that provides a method to utilize the information on: (1) institutions around which institutional structures are constructed; (2) business groups' adoption of these institutions (see Figure 3.1).

#### *3.1.2.1 Institutional embeddedness of the community and business group*

Given a distinct institutional setting, the institutional embeddedness can be represented by the penetration ratios of the institutions within the business group community at the collective level, and at the organizational level, by the extent to which a business group has adopted the institutions.

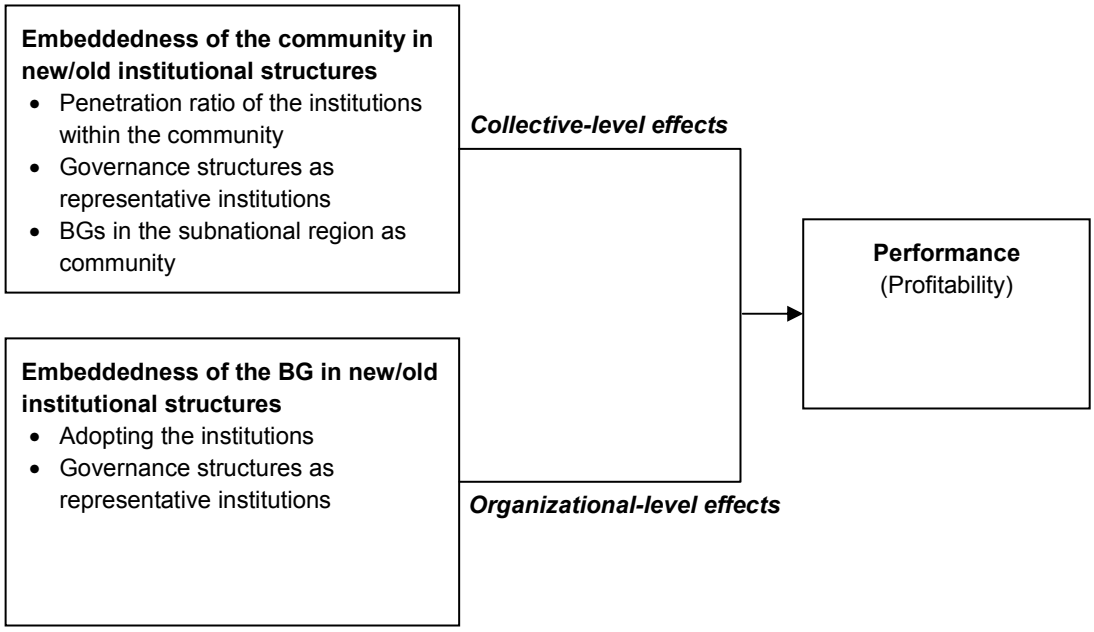



**Figure 3.1** The analytical framework of Chapter 3

In essence, this is an approach that focuses on institutions adopted by business groups to capture their collective and individual embeddedness within the institutional environment. It is distinguishable from a relational approach that identifies relations or agents considered to be critical and use them as proxies for the institutional environment (Peng, 2003; Peng et al., 2005).

Specifically, the penetration ratio of an institution can be calculated as:

Penetration of an institution = Number of business groups adopting this institution in the community / Total number of business groups in the community.

Community is empirically defined as the population of business groups in the subnational region (province) of China, because in terms of the development of both formal and informal institutions, China is characterized by significant subnational variation among its provinces (Chan et al., 2010; Seo et al., 2010; Shi et al., 2012).

*3.1.2.2 Representative institutions and a working taxonomy*

This chapter focuses on governance structures of Chinese business groups. *Governance structures* such as ownership concentration, external control, and enterprise forms are institutions that define the structural features of corporate governance which is an essential part of MOIT in emerging economies. In the context of MOIT, business groups are linked with particular institutions (i.e., of corporate governance) that vary in the newness (degree of market orientation). Therefore, a taxonomy of "new (more-market-oriented)/old (less-market-oriented)" institutions is needed. Specifically, this chapter identifies a set of business group governance structure forms whose market orientation degree is measured discretely or continuously. The following institutional background section is devoted to interpret the historical rationales of these measures.

## 3.2 Institutional background

There are well-documented arguments on Chinese business groups' strategic behaviors renewing their governance structures to involve them in the enterprise reform (Lu and Yao, 2006; Ma et al., 2006), and insightful discussions of forms, mechanisms and contexts of these market-conforming institutional strategies (Lin and Su, 2008; Meyer and Lu, 2005; Zhang, 2004). The previous chapter has provided an overview of how Chinese business groups continuously upgraded their internal governance system to involve themselves deeply in the field of enterprise reform over the past decades. This section further clarifies this to delineate important governance structure symbols that characterize distinct institutional embeddedness renewing processes of Chinese business groups.

### *3.2.1 Modern/conventional enterprise forms*

The enterprise reform that aimed at introducing "modern corporate institutions"—property rights-based corporate governance institutions—is at the heart of the economic reform of China (Lau et al., 2007; Peng et al., 2007). Upon entering the 1990s, enterprise reform in China became more significantly focused on establishing a national "modern enterprise system" as distinct from the initial focus in the 1980s. Under such circumstances, corporatization emerged and became officially recognized (NBSC, 2001b, p. 14) as a dominant approach that enabled business groups to build a "modern parent–subsidiary governance structure in which the parent company[12] is formalized and control subsidiary companies by property rights-based ties" (CGCA, 2004, p. 42). The Chinese business groups adopted a gradual corporatization process.

The process initially placed more emphasis on formalizing the parent company into a "modern enterprise" to comply with, mainly, the National Company Law that was first enacted in 1993. Following the official classification (NBSC, 2009b), the parent company is treated as a modern enterprise when it falls into one of the following categories: joint-stock company (JSC), limited liability company (LLC), solely state-funded LLC (*guoyou-duzi-gongsi*), and four other minor categories[13]. These are distinguished from a traditional enterprise categorized as traditional non-SOE (typically, collectively held company) or traditional SOE (NBSC, 2009b). This movement systematically led to incrementally market-oriented changes in the

[12] In the Chinese context, the "parent company" refers to an entity in a business group that controls other legally independent entities in the business group as its affiliates (CGCA, 2004; Keister, 1998, 2001), not an ultimate holder (an entity outside the business group).

[13] For example, in 2004, the four categories—namely, sino-foreign joint venture, joint venture with partners from Hong Kong, Macao, Taiwan (HMT), joint-stock company with foreign investment, and joint-stock company with investment from HMT—only account for 1.7% of all the 2764 business groups.

distribution of different governance forms within the population of business groups: among those business groups included in the NBSC list, in 2000 the proportion of those that had a parent company in a modern enterprise form (JSC or LLC) was 42.4%, and by 2008 this had changed to 60.6% (Table 3.1).

**Table 3.1** Penetration ratios of major parent company enterprise forms in Chinese business groups, 2000–2008

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Total number of business groups | 2655 | 2710 | 2627 | 2692 | 2764 | 2845 | 2856 | 2926 | 2971 |
| 1. Parent company in modern enterprise forms | | | | | | | | | |
| Limited liability company (%) | 25.9 | 28.6 | 31.5 | 36.1 | 38.6 | 42.2 | 44.4 | 45.5 | 46.7 |
| Joint stock company (%) | 16.5 | 14.0 | 14.3 | 14.5 | 14.3 | 13.8 | 13.4 | 13.6 | 13.9 |
| Solely state-funded LLC (%) | 28.5 | 29.6 | 30.0 | 27.8 | 25.8 | 24.3 | 23.6 | 22.6 | 21.7 |
| 2. Parent company in traditional enterprise forms | | | | | | | | | |
| Traditional non-SOE (%) | 9.5 | 7.9 | 6.7 | 5.4 | 5.7 | 5.8 | 4.2 | 4.3 | 4.0 |
| Traditional SOE (%) | 17.3 | 18.6 | 16.5 | 14.8 | 13.9 | 11.7 | 10.8 | 10.3 | 10.1 |

**Notes:** Data derived from NBSC (2009b); the percentages were calculated by dividing the number of business groups whose parent company was in the enterprise form by the total number of business groups.

### *3.2.2 The incremental listing of Chinese business groups*

The continuous progress of the MOIT in the country arouses increasing pressure on business groups for market-oriented changes. The 2000s (the sample period of the econometric analysis in this chapter) were characterized by an ideal institutional landscape to demonstrate confrontation between arguments concerning business groups as institutionally embedded agents. The pervasive resource-emphasizing preference among business groups on an overdeliberate renewal process, was

increasingly queried given the accompanying problems with governing Chinese listed companies (Hu et al., 2010; Jiang et al., 2008). Simultaneously, the significant improvement in the institutional framework in the decade, provided sufficient incentives and conditions for the government and other major agents to exert more pressure on the stagnant corporate governance system for change. To cope with this, the corporatization requires more deliberately designed institutional instruments, which might be more institutionally complex and resource consuming.

"Incremental listing" emerged as an important IER strategy that links business groups with newly introduced stock market institutions since the early 1990s (Cheung et al., 2009; Ma et al., 2006). Intuitively, incremental listing is a process by which business groups initially list only some of their assets and then sequentially "inject" the remaining assets into the listed entity over a period of time (Naughton, 2006). This is, essentially, an incremental approach that open business groups to market-focused outside investors while maintaining substantial control over the listed affiliates.[14] The ultimate goal of the incremental listing journey is "comprehensive listing", which is increasingly legitimized as a common standard for large business groups when entering the 2000s (Deng and Gao, 2010; State Council, 2006). The process of incremental listing comprises a sequence of enterprise forms across which the degree of market orientation is increasing: non-listed business group (*initial state*), partially-listed business group (*in-between state*), and wholly-listed business group (*ultimate state*). To utilize aforementioned characteristics of incremental listing, this study chooses business groups which were partially listed before the 2000s (the

[14] Of course, this can also be addressed as a process associated with continuous resource reallocation and organizational adjustments within the business group (particularly, between its listed and unlisted sub-entities). Implication of these issues has been fully clarified in Chapter 5.

analysis period) as the sample to conduct an econometric analysis. In comparison, partially-listed business groups were involved in the new round of reform (therefore higher stages of the MOIT) in China more significantly, for example, in terms of the split-share structure reform launched in the mid-2000s.[15] This setting also helps to employ governance structures of listed affiliates of business groups.

## 3.3 Hypotheses

In the following subsections, I propose a series of hypotheses to compare the explanatory power of IER and overembeddedness arguments for Chinese business groups in this decade. I first address different performance effects at the collective level predicted by the competing arguments.

### *3.3.1 Within-community mechanisms around new governance structures*

Arguments supporting the IER hypothesis emphasize that the emergence of business groups in emerging economies cultivated not only collectively shared market-oriented identity and autonomy but also many important capabilities to carry this out (Carney, 2008; Kim et al., 2010). The historical coevolution of Chinese business groups and the institutional framework reveals pieces of evidence on these optimistic arguments. Historically, the market orientation of Chinese business groups is not simply "assigned" by the government but rather is determined by the accumulative efforts in place since the beginning of economic reform when the enterprise economic alliances emerged to fill institutional voids produced by the former planning economy (CGCA,

[15] The split-share structure reform is a part of stock market liberalization in China to resolve several problems confronting Chinese listed firms, to: (1) reduce controlling shareholder dominance, and (2) modify the split structure of tradable and nontradable shares in listed firms (Bell and Feng, 2009; Jiang et al., 2008). Obviously, business groups have been engaged in these as a great number of listed firms in China are business group affiliates (Ma et al., 2006).

2004; Keister, 1998, 2001). For example, Yiu and her colleagues argue that "once the business groups are formed, they have autonomy in pursuing different strategies to acquire resources and develop market capabilities in order to enhance their strategic competitiveness" (Yiu et al., 2005, p. 187).

The self-enhancing isomorphic mechanism aroused by endogenous autonomy makes business groups more tightly connected with the new more-market-oriented institutions, promoting the collective occupation of business groups in shaping a market-oriented institutional framework which defines critical sources of competitive advantages in the market. Therefore, viewing the embeddedness of the business group community in the new institutions—specifically, the penetration of the new governance structures (e.g., parent company in modern enterprise forms) in the region—as a proxy for the isomorphic pressure, this could be reflected as a positive association between the dominance of market-oriented governance structure forms and performance. In the context of China, the systematic movement in the population of business groups to a market-oriented modern enterprise system in the 2000s as revealed in Table 3.1 might inform the presence of this effecting mechanism.

Therefore, the IER hypothesis will propose a systematic governance structure renewal:

> ***Hypothesis 1a*** For Chinese business groups, the penetration ratios of new governance structures within business groups in the province where they are located, are positively associated with performance.

In contrast, the overembeddedness hypothesis tends to support a pessimistic perspective that objects a market-oriented within-community institutional strategic view. Most overembeddedness arguments also assume the dominance of a

market-oriented institutional transition, whereby a dual-track institutional system in which those old institutions interrelated with the business groups remain effective to a certain extent in certain fields while the new institutions are increasingly introduced in fields where business groups are less influential and promoted by non-business group entrepreneurial players (Kim et al., 2010; Peng et al., 2005).[16]

Such a systematic failure is considered as the result of a set of institutional constraints such as structural inertia (Guillén, 2002), environmental uncertainty (Kim et al., 2004), and competitive pressure caused by rival players who possess less historical baggage (Kedia et al., 2006). As business groups rarely promote the new institutions, the penetration of the new governance structure forms (e.g., parent company in modern enterprise forms) within business groups is a proxy for the exogenous marketization pressure, which tends to affect the performance negatively. Therefore, an overembeddedness hypothesis would predict:

> ***Hypothesis 1b*** For Chinese business groups, the penetration ratios of new governance structures within business groups in the province where they are located, are negatively associated with performance.

### *3.3.2 Within-community mechanisms around old governance structures*

Mainstream research emphasizes the possibility that business groups might have gone too far away from a balance point, falling into the cage of overembeddedness (Carney, 2008). When such institutional constraints as previously discussed are significant, withdrawing from the old mature institutional structures might cause a reduction of resources that can be derived from the institutional environment, and raise the risk of

[16] However, as will be discussed in the following subsection, they have overemphasized the dominance of institutional environmental forces that hinder business groups from involvement in market-oriented institutional changes.

infuriating dominant agents (e.g., local governments) who might object to the delegitimization for its own sake (Meyer and Lu, 2005). If such cost is considered insuperable, business groups will be motivated to stay with these institutions even when they become obsolete. Such an overembeddedness burden is therefore reflected in the self-enhancing isomorphic mechanism around the old dominant institutions.

Regarding Chinese business groups, we have previously discussed resource-emphasizing preferences that they share. This can be further illustrated by looking into how Chinese business groups are collectively involved in establishing the "business group version" of corporate governance forms. I illustrate this with the case of the China Group Companies Association (CGCA), one of the most influential associations of business groups in China. The CGCA proposed a pragmatic, sometimes conservative, perspective on important issues of governance structure reform (CGCA, 2004). This involves the CGCA and their members to be in conflict with other agents, such as the China Securities Regulatory Commission which preferred more radical changes around governance issues such as chairman duality (CGCA, 2004). Winning these battles has placed business groups at an advantage in competing for resources embedded in mature institutional structures (Guest and Sutherland, 2010; Yiu et al., 2005). Nevertheless, it does have the potential to exacerbate business groups' embeddedness in these old, less-market-oriented institutions (CGCA, 2010).

By contrast, it can be argued that institutional embeddedness renewal is more realistic. Embedding in the old institutions can be treated as a method of mobilizing institutional resources (Greenwood and Suddaby, 2006). To support their engagement in embracing new market-oriented institutions, business groups have to simultaneously remain embedded in prevailing institutions formalized in the past but

that are now less market-enhancing in nature. Therefore, IER hypothesis does not negate a persisting and supportive, although usually constrained, effect of the old dominant institutions to fuel embedding into new institutions. Prior studies of Chinese business groups, although seldom focusing on the mechanisms within the business group community, do generate insightful implications in respect of this institutional strategic issue. For example, White et al. (2008) delineates the historical context in which the Chinese business group was shaped as an effective system managing both business strategies (therefore shaped around the new institutions) and government relational ties (therefore shaped around the old institutions). Moreover, the gradual decline of the old traditional parent company governance forms as shown in Table 3.1 seems also to argue against a sudden disappearance of beneficial potentials of these institutions.

Therefore, although the IER hypothesis and the overembeddedness hypothesis differ in how the embeddedness in old institutions should be dealt with, both of them tend to imply a positive effect of the embeddedness of the business group community in old institutions—the penetration of the old governance structure forms (parent company in traditional enterprise forms in the context of this study)—in a subnational province context.

> ***Hypothesis 2*** For Chinese business groups, the penetration ratios of old governance structures within business groups in the province where they are located, are positively associated with performance.

### *3.3.3 The organizational-level process*

The extent to which a systematic embeddedness phenomenon dominates business groups during incremental MOITs can be further addressed by examining the

effecting mechanisms of organizational-level strategies to enhance market orientation of the adopted institutional forms. Specifically, I address Chinese business groups' organizational-level renewal of governance structures to a comprehensively new version (fully listed business group with low ownership concentration and high tradability of shares in its listed affiliates) which implies increased embeddedness in new institutional structures and decreased embeddedness in new institutional structures at the organizational level, by examining competing hypotheses.

Theoretically, the beneficial potential of the adopted governance structures is essentially conditioned on the collectively interactive institutional context—that is, whether the institutional content of these forms has been synchronized within the business group community as in the institutional environment. Establishing or dissolving the legitimacy of a governance structure is typically a friction-convergence process (Kim et al., 2010; Peng, 2003). The beneficial potential of the governance structure would be difficult to realize in friction periods characterized by the lack of an institutional foundation that legitimizes the governance structure, but would be more likely to become significant in convergence periods when the legitimacy of the relevant supportive institutions has been established to a certain extent.

The IER hypothesis emphasizes the persistence of the autonomy collectively shared within the entire population of business groups, which enables coevolution between business groups and the institutional environment in facilitating market-enhancing changes (White et al., 2008). Under such circumstances, the legitimatization of the governance structure while progressing to a new market-oriented version tends to converge quickly, lending substantial institutional support to the business group that attempts to sustain its competitive advantage in the increasingly competitive market. Naturally, some of the adopted governance

structures need to be coupled with the old dominant institutions to fuel re-embedding actions. However, in situations where the institutional embeddedness renewal mechanisms dominate, balancing such obsolete embeddedness will be strategically achievable and therefore will not reverse the beneficial potential of these adopted institutional forms even when their institutional contents are being refreshed.

In the context of China, institutional strategic actions which business groups have taken in the fields of recent enterprise reform and stock market liberalization—specifically, the incremental listing at the business group level and split-share structure renewal for their listed affiliates—have a consistent market-oriented focus. As previously argued, the beginning of convergences in the governance structure reform of Chinese listed companies had become identifiable in the mid-2000s (Jiang et al., 2008). These governance structure renewal actions have the potential to shift business groups from an old governance structure (partially listed business group with high ownership concentration and low tradability of shares in its listed affiliates). Therefore, the IER hypothesis will propose:

> ***Hypothesis 3a*** For Chinese business groups, the impact of upgrading governance structures to a new market-oriented version on performance is positive.

In contrast, the overembeddedness hypothesis tends to imply an overstretched convergence period for these old dominant governance structures due to the self-enhancing tendency of overembeddedness as argued earlier. During a typical overembeddedness process, the old version of the adopted governance structures might permanently rest on a convergence position; however, replacing these institutional forms with more-market-oriented versions will be accompanied by severe institutional frictions and organizational learning/adjusting costs. In the context of the

governance structure reform in China, several studies have argued that the mature governance structure forms might have too heavy historical baggage—specifically, collectively shared preferences on deriving institutional resource and tight control over listed affiliates (Hu et al., 2010; Lu and Yao, 2006)—to easily escape. If such an organizational-level cost of overembeddedness is significant, it would be too arbitrary to assert that the upgraded governance structure forms will be associated with positive performance effects. Instead, the dominant overembeddedness mechanisms will propose:

> ***Hypothesis 3b*** For Chinese business groups, the impact of upgrading governance structures to a new market-oriented version on performance is negative.

## 3.4 Methodologies

A holistic examination of the proposed within-community and local-level institutional strategic mechanisms requires measuring the overall performance of business groups, but this is a difficult task in the Chinese context (Lu and Yao, 2006; Ma et al., 2006). I accomplish this by considering the profitability of the listed affiliate of the business group as an efficient proxy for several reasons. First, this reconciliation reflects the distinctive relationship between Chinese business groups and their listed affiliates; that is, the listed affiliates are the core of business groups actively involved in the corporatization and market liberalization reform, as the comprehensive listing was legitimized as an ultimate goal of these (partially) listed business groups (Lu and Yao, 2006; State Council, 2006). Thereby, measuring performance at the listed affiliate level is a significant synchronized proxy of outcomes of embeddedness-renewing

strategies of business groups. Second, apart from some of the larger business groups, such as those labeled "national champions" (Guest and Sutherland, 2010), most Chinese business groups owned only a single listed subsidiary firm. For example, only two of the business groups included in this study had two listed affiliates. Estimating profitability by that of the listed affiliate is therefore empirically convincing. Third, it also helps to delineate the organizational-level IER process by including corporate governance strategies at the listed affiliate level because such information at the business group level is difficult to find.

### *3.4.1 Data and sample*

The data were collected from various sources. Provincial data on the distribution of distinct governance structure forms within business groups were derived from *Large Corporations of China* (NBSC, 2001b–2009b). Utilizing this source widely employed in previous studies (e.g., Guest and Sutherland, 2010; Ma et al., 2006), I also derived data on individual business groups (e.g., sales, assets, and industry). Data on the accounting information of group-affiliated listed companies is from the RESSET database and checked against alternative sources.

The sample consists of an unbalanced panel of 38 matching pairs of business groups and their listed affiliates from 2000 to 2008[17]. To be included in the sample, a listed company needed to satisfy five critical principles: (1) having aggregate sales of textile segments that accounted for most of its sales for at least one year, (2) having nonnegative equity values and sufficient accounting information, (3) being the largest listed affiliate of a business group that was not fully listed before the sample period,

[17] This study relies on *Large Corporations of China* (NBSC, 2001b–2009b) to characterize the within-community and local-level mechanisms of business groups. This yearbook ceased publication in 2010. The period 2000–2008 is the longest time span that we can achieve.

(4) being the largest listed affiliate of the same business group throughout the sample period, and (5) having the business group identified as engaged in textile manufacturing classified by the Chinese Standard Industry Codes (CSIC) as 17, 18, 19, and 28, or in textile wholesaling and retailing (CSIC 63 and 65) and simultaneously containing a significant component of textile manufacturing in its business (CEI, 2004; Colpan, 2008).

### *3.4.2 Performance measure*

Performance is measured as the return on sales at the affiliated firm level (*FMROS*), calculated as the ratio of operating income to sales. It provides an accounting-based measure of operating efficiency and profitability, and has been used in many previous studies of business groups and listed firms (e.g., Colpan, 2008; Li et al., 2009).

### *3.4.3 Within-community mechanisms*

The community-level institutional embeddedness was represented by penetration ratios of distinct parent company governance structure forms. The penetration ratios of modern enterprise forms is represented by two variables (*PRLLC* and *PRJSC*), and the penetration ratios of traditional enterprise forms is represented by the other two variables (*PRTNSOE* and *PRTSOE*)[18]. The four continuous variables (*PRLLC*, *PRJSC*, *PRTNSOE*, and *PRTSOE*) were calculated as the number of business groups whose parent company was in a relevant form (limited liability company, joint stock company, non-corporatized non-SOE company, and non-corporatized SOE, respectively) divided by the number of business groups in the province.[19]

[18] I did not employ "solely state-founded LLC" because it is a halfway form only applicable to large SOEs, lacking distinguishing characters to be addressed as modern or traditional (Huang, 2011).

[19] Tables A3.2–3.5 provide an overview on the distribution of these governance structure forms of Chinese business groups across subnational regions (provinces) in China.

### *3.4.4 The organizational-level process*

Three variables were introduced to characterize the organizational-level process of the governance structure renewal. The first variable is business group listing ratio (*BGLIST*), calculated by using the total assets of the business group to divide the assets of its listed affiliates. Furthermore, I introduced two variables at the affiliate level, namely, firm share tradable share ratio (*FMTS*), measured as the proportion of fully tradable shares in total share and firm ownership concentration (*FMOC*), measured as the proportion of shares owned by the top 1 shareholder.

### *3.4.5 Control variables*

To control for the effect of institutional strategies in the industrial field, I introduced intraindustry business group concentration (*BGIC*), calculated as the top-three sales concentration ratio of the CSIC2 industry to which the business group belongs, using information on all business groups included in the NBSC lists (NBSC, 2001b–2009b). To control for the impact of internal resource condition both at the business group and affiliate level, I included *BGGW* (the annual change in the business group's sales), *BGSZ* (the natural logarithm of business group assets in RMB), and affiliate-level *FMLEV* (the debt-to-asset ratio).

### *3.4.6 Regression model*

The regression model is specified as follows:

$$P_{it} = a_i + \lambda_t + \alpha_1 X_{it} + \alpha_2 Control_{it} + u_{it}, \quad (1)$$

where $i$ indicates the business groups ($i$ = 1,…,38), $t$ indicates time (2000–2008), $P_{it}$ is the profitability of the listed affiliate ($FMROS_{it}$), $X_{it}$ represents institutional embeddedness variables ($PRLLC_{it}$, $PRJSC_{it}$, $PRTNSOE_{it}$, $PRTSOE_{it}$, $BGLIST_{it}$, $FMTS_{it}$

and $FMOC_{it}$), $Control_{it}$ indicates the control variables ($BGIC_{it}$, $BGGW_{it}$, $BGSZ_{it}$, and $FMLEV_{it}$), and $u_{it}$ is the error term.

## 3.5 Empirical results

Table 3.2 reports the means, standard deviations, and correlation matrix for the sample. The regression results are presented in Table 3.3. Taking into consideration the relatively high correlations between several of the explanatory variables, these variables are first included separately in Models 1, 2, 3, and 4, followed by the full specification with all explanatory variables included (Model 5). The regression models are estimated using fixed-effects regression methods to control for unobserved heterogeneity in the sample. The choice of the fixed effects versus the random effects estimators is confirmed by the application of Hausman test as the assumption of random-effects models—the random effects and the regressors are not correlated—was violated ($p < 0.01$) (Hausman, 1978). Year dummies were included in all specifications to control for period effects.

The IER hypothesis and overembeddedness hypothesis predict distinct relationships between the collective-level institutional embeddedness and performance. The collective-level institutional embeddedness is represented by the penetration ratios of new governance structure forms (PRLLC, PRJSC) and of the old governance structure forms (PRTNSOE, PRTSOE). In respect of the within-community mechanisms around new governance structure forms, both the effect of PRLLC and the effect of PRJSC ($p < 0.01$) are positive (Models 1, 2, and 5). These results are consistent with the prediction of the IER hypothesis (Hypothesis 1a), and do not support the overembeddedness hypothesis (Hypothesis 1b) which proposes a negative effect of penetration ratios of new governance structure forms. Regarding

**Table 3.2** Descriptive statistics and Pearson correlations

| Variables | Description | Mean | SD | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. FMROS | Firm return on sales | 0.068 | 0.110 | 1 | | | | | | | | | | |
| 2. PRLLC | Penetration ratio of Limited liability company | 0.416 | 0.161 | 0.150 | 1 | | | | | | | | | |
| 3.PRJSC | Penetration ratio of Joint stock company | 0.148 | 0.062 | –0.014 | –0.101 | 1 | | | | | | | | |
| 4. PRTNSOE | Penetration ratio of Traditional non-SOE | 0.063 | 0.041 | 0.325 | 0.366 | –0.111 | 1 | | | | | | | |
| 5. PRTSOE | Penetration ratio of Traditional SOE | 0.086 | 0.100 | –0.057 | –0.611 | –0.150 | –0.176 | 1 | | | | | | |
| 6. BGLIST | Group listing ratio | 0.567 | 0.222 | –0.099 | –0.008 | 0.001 | –0.229 | –0.086 | 1 | | | | | |
| 7. FMTS | Firm tradable share ratio | 0.455 | 0.147 | –0.109 | 0.342 | –0.069 | –0.136 | –0.202 | –0.069 | 1 | | | | |
| 8. FMOC | Firm ownership concentration | 0.450 | 0.151 | 0.004 | –0.432 | –0.043 | –0.187 | 0.173 | 0.125 | –0.608 | 1 | | | |
| 9. BGIC | Intraindustry BG concentration | 0.299 | 0.095 | –0.169 | 0.116 | –0.002 | –0.121 | –0.089 | –0.026 | 0.222 | –0.154 | 1 | | |
| 10. BGGW | Group sales growth | 0.157 | 0.263 | 0.293 | 0.077 | –0.002 | 0.188 | –0.053 | –0.217 | –0.056 | –0.033 | 0.011 | 1 | |
| 11. BGSZ | Group size (natural logarithm of assets in RMB) | 21.987 | 0.789 | 0.165 | 0.241 | 0.035 | 0.031 | –0.130 | –0.285 | 0.226 | –0.031 | 0.025 | 0.232 | 1 |
| 12. FMLEV | Firm leverage | 0.393 | 0.147 | –0.242 | 0.198 | 0.086 | –0.140 | –0.117 | 0.263 | 0.214 | –0.079 | 0.031 | –0.025 | 0.315 |

**Note:** N=271.

**Table 3.3** Results of regression analyses

| | Dependent variable: Firm return on sales (FMROS) | | | | |
|---|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| Constant | –1.121** | –0.897* | –1.248** | –1.069** | –1.575*** |
| | (0.476) | (0.473) | (0.541) | (0.522) | (0.551) |
| *Collective-level effects* | | | | | |
| PRLLC | 0.076 | 0.095 | | | 0.187 |
| | (0.120) | (0.119) | | | (0.131) |
| PRJSC | 0.597*** | 0.572*** | | | 0.587*** |
| | (0.205) | (0.203) | | | (0.200) |
| PRTNSOE | | | 0.275 | 0.381 | 0.423 |
| | | | (0.317) | (0.319) | (0.335) |
| PRTSOE | | | 0.479*** | 0.436*** | 0.527*** |
| | | | (0.163) | (0.160) | (0.170) |
| *Organizational-level effects* | | | | | |
| BGLIST | 0.179*** | 0.153** | 0.146** | 0.122* | 0.152** |
| | (0.067) | (0.066) | (0.067) | (0.066) | (0.067) |
| FMTS | 0.024 | | 0.050 | | 0.136 |
| | (0.077) | | (0.078) | | (0.083) |
| FMOC | | 0.193* | | 0.205* | 0.259** |
| | | (0.102) | | (0.105) | (0.112) |
| *Control variables* | | | | | |
| BGIC | –0.418*** | –0.412*** | –0.371*** | –0.367*** | –0.382*** |
| | (0.088) | (0.088) | (0.089) | (0.088) | (0.086) |
| BGGW | 0.037 | 0.038* | 0.040* | 0.040* | 0.045** |
| | (0.023) | (0.023) | (0.023) | (0.023) | (0.022) |
| BGSZ | 0.051** | 0.038* | 0.061*** | 0.051** | 0.060** |
| | (0.021) | (0.021) | (0.023) | (0.023) | (0.024) |
| FMLEV | –0.260*** | –0.248*** | –0.300*** | –0.290*** | –0.285*** |
| | (0.069) | (0.068) | (0.070) | (0.070) | (0.068) |
| Observations | 271 | 271 | 271 | 271 | 271 |
| Hausman stat. | 42.16*** | 56.80*** | 35.27*** | 51.57*** | 504.88*** |
| R2 (within) | 0.308 | 0.318 | 0.308 | 0.319 | 0.354 |

**Notes:** Coefficients from fixed-effects regressions; year dummies included in all specifications; standard errors in parentheses: *$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

the old governance structure forms, the signs of the estimated coefficients for the old governance structure forms—specifically, PRTNSOE and PRTSOE ($p < 0.01$)—are all positive (Models 3, 4, and 5). Therefore we found supporting evidence for Hypothesis 2.

The organizational-level process associated with the systematic institutional embeddedness phenomenon is addressed by two competing extreme hypotheses (Hypothesis 3a and Hypothesis 3b) on the effects of upgrading the adopted governance structure forms to a comprehensive new version. The positive effect of BGLIST ($p < 0.1$) in all five models and FMTS in Models 1, 3, and 5 are consistent with Hypothesis 3a (the IER hypothesis) but not Hypothesis 3b (the overembeddedness hypothesis); the positive effect of FMOC ($p < 0.1$) in Models 2, 4, and 5 is inconsistent with Hypothesis 3a but consistent with Hypothesis 3b. These results therefore negate the exclusivity of either of these extreme institutional embeddedness hypotheses in explaining the organizational-level institutional embeddedness phenomena.

The estimated coefficients on the control variables lend additional implications to my analytical framework. The significantly negative effect of intraindustry business group concentration (BGIC) tends to support the efficiency structure view, as argued in Guillén (2002), that there was significant market competition between Chinese business groups during the market-oriented institutional transition. The effect of group sales growth (BGGW) is consistently positive, providing evidence that the organizational cost for balancing embeddedness in old social obligations during a successful embeddedness renewing process can be suppressed. The results for the remaining two control variables are also consistent with the conventional resource-based view that considers business groups as collections of resources.

This study focuses on systematic institutional embeddedness renewal movements within business groups. However, the distinct IER actions that a business group takes might to some extent vary, contingent on its initial embeddedness (Roth and Kostova, 2003). I therefore relaxed the constraints on sample selection by including seven business groups fully listed before the sample period to check the robustness of our results when considering differences in initial embeddedness conditions. I conducted the same regressions as in Table 3.3. The results for all hypotheses are qualitatively consistent with those reported in Table 3.3 (see Table A3.6 in Appendices).

## 3.6 Discussion and conclusions

In this chapter, I examined the effectiveness of institutional embeddedness renewal (IER) of business groups during the market-oriented institutional transition (MOIT). I applied the dual-process model proposed in Chapter 2 that describes systematic institutional embeddedness phenomena of business groups as a continuous process of increasing collective isomorphic pressure to establish the legitimacy of selected institutions within institutional fields, and simultaneous sequential learning/adjusting at the organizational level promoting the pervasiveness of relevant institutions. Correspondingly, the effect of IER is also dual level, consisting of collective-level effect and organizational-level effect. I further argued that the process of the IER can be captured by the embeddedness both in the new (more-market-oriented) institutional structures and in the old (less-market-oriented) institutional structures.

I proposed an analytical framework to evaluate the dual-level IER effects by examining the relationship between the institutional embeddedness (at both the collective level and the organizational level) and the performance of the business group. Specifically, the collective-level institutional embeddedness is captured by the

penetration ratios of new and old institutions in the business group community, and the organizational-level institutional embeddedness is captured by the adoption of the new and old institutions by the business group.

To demonstrate the proposed IER process mechanisms, I proposed a set of competing hypotheses, namely, the IER hypothesis and the overembeddedness hypothesis which predict different performance consequences. The proposed hypotheses are tested by examining the performance effects observed during governance structure renewal of Chinese business groups. I identified important governance structures formalized to build a modern business group governance system that involved Chinese business groups in the enterprise reform and stock market liberalization to develop measures of institutional embeddedness for econometric analysis. I selected the Chinese textile industry to evaluate econometrically the performance effects during these institutional strategic processes evident in the sample business groups in this particular industry in the 2000s.

The main findings from the econometric analysis as follows should be highlighted. The results regarding isomorphic mechanisms within the community of business groups are more consistent with the prediction of the IER hypothesis. Hypotheses 1a and 1b depict differences between the two competing institutional embeddedness phenomena. The results indicate that the penetration ratios of both limited liability company (PRLLC) and joint stock company (PRJSC) that characterize within-community pressure around the new institutions have yielded positive performance effect. To say the least, although such a positive effect is not statistically significant in the case of PRLLC, it does not lend support to the overembeddedness hypothesis that predicts a negative effect of penetration ratios of new institutions within the business group community. On the other hand, regarding the examination

on Hypothesis 2, there is a positive effect observed around the old institutions as represented by the penetration ratios of traditional non-SOE (PRTNSOE) and traditional SOE (PRTSOE). This should be interpreted as evidence that business groups still need to maintain embeddedness in old dominant institutional structures to derive resources to fuel their embedding into new institutional structures and competitiveness in market.

These results jointly provide collective-level evidence that business groups engaging in the MOIT as described in this study were experiencing an effective IER. Specifically, this process is more likely to be incremental. Under such circumstance, embeddedness in those institutions which are less market-oriented but still dominant (in the context of this study, such as the traditional SOE enterprise form) will remain important as demonstrated by the aforementioned results.

To a large extent, such an optimistic conclusion is reproduced in the examination regarding the organizational-level process (Hypotheses 3a and 3b). Two of the strategies promoting the market orientation of adopted governance structure forms—specifically, incremental listing (BGLIST) and increasing firm share tradability (FMTS)—produce positive effects (although only statistically significant in the case of BGLIST). In contrast, the effect of firm ownership concentration (FMOC) is significantly positive. This result coincides with findings of previous studies on Chinese business groups. Employing 628 listed firms affiliated with Chinese business groups in 2001, Lu and Yao (2006) also reported a significant positive effect of ownership concentration. High ownership concentration of the listed firm characterizes a deep embeddedness of the business group with which it is affiliated in old, dominant institutional structures. A positive effect of firm ownership concentration therefore provides organizational-level evidence on a relatively

persistent value of the embeddedness in old institutional structures for business groups.

Besides, several other explanatory variables (PRLLC, PRTNSOE, and FMTS) have not produced significant coefficients. Isolating IER effects in a real empirical setting as in China tends to be complicated by many contextual factors. In the previous section, we have discussed that the potential influence of the distinct periods (convergence period versus friction period) on the examination of the value of an institutional form adopted by business groups. This provides a partial explanation of the insignificance of these explanatory variables. For example, regarding the insignificant effect of share tradability (FMTS), the results of this study is consistent with previous studies on Chinese listed firms (e.g., Jiang et al., 2008). I agree with the interpretation by Jiang et al. (2008); that is, the institutional foundation of the new governance structure (high share tradability) was still weak as the split-share structure reform in China has not been launched until the mid-2000s.[20]

To conclude, we can say that from an IER process viewpoint, these research findings provide a positive answer to the research question, "*can business groups improve their performance by implementing institutional embeddedness renewal?*" (Chapter 1, p. 6). Business groups picked up in the analysis of this study were renewing their embeddedness effectively during the market-oriented institutional transition. The effect of the embeddedness in new institutional structures (measured by either the penetration ratios or by the adoption of the new institutions) is positive, while a concurrent positive effect observed around the old institutions implies the necessity of deliberately maintaining embeddedness in those old, dominant

[20] To account for such contextual complexity of MOIT, a possible solution is to include variables of MOIT characteristics to elaborate the contingency of the performance effects of IER strategies (the following Chapter 4 considers for this issue).

institutions. Such effecting mechanisms of IER are expected to dominate the business groups in China, given the reliability of the institutional and industry setting of this study in depicting the transition of the institutional framework of China, and the consistence of my empirical findings with previous studies using more large, multi-industry samples (e.g., Jiang et al., 2008; Lu and Yao, 2006).

# Chapter 4

# An Analysis of Failure of Politically Embedded Business Groups in China[21]

*This chapter examines failure likelihoods of business groups initiated with different political and market-oriented features and the institutional contingency of these effecting mechanisms during China's state-led market-oriented institutional transition, employing data for 48 textile business groups during the period 2000–2008.*

## 4.1 Introduction

Given the significance of business groups in emerging economies (Heugens and Zyglidopoulos, 2008), "the relationship between business groups and institutional environments is fundamentally interactive and mutually shaping" (Zhang, 2014, p. 148). For this reason, the role that business groups play—collectively, as "paragons" or "parasites"—in the institutional transition of emerging economies to market economies, has become highly topical in the literature on business groups (Carney, 2008; Carney et al., 2011; Heugens and Zyglidopoulos, 2008; Khanna and Yafeh, 2007). Nevertheless, in business group studies to date, this remains an issue that is

[21] Zhang, Qiang and Wang, Yan (2014), "Political embeddedness, market-oriented autonomy, and failure of business groups during China's state-led institutional transition", *International Journal of Economics and Business Research* (accepted paper).

widely referred to but seldom examined explicitly.

Any analysis of the role of business groups requires examination of the general trends and mechanisms of the interactions between business groups and the institutional environment. From an organizational ecology viewpoint (Rodrigues and Child, 2003; Volberda and Lewin, 2003), an intuitive and straight way to ascertain such a collective role of business groups in a given emerging economy is to consider the population dynamics of these business groups. If they collectively play a paragon role in market-oriented institutional transition (MOIT), then business groups with features that indicate active involvement in market-oriented institutional changes would prosper more than their counterparts without such salient features, and vice versa. Mainstream studies have shown great concern for identifying organizational features that are important for business groups in MOITs (e.g., Kim et al., 2004; White et al., 2008; Yiu et al., 2005). However, there remains an almost total lack of empirical investigation of the relevance of these features to the population dynamics of business groups during the MOIT.

This study aims to fill these gaps in the literature. Specifically, this study examines the likelihood of failure of business groups initiated with different political and market-oriented features, and further investigate institutional conditions that increase or reduce the risk of failure faced by these featured business groups, in the context of China. China is taken as a distinctive institutional setting for several reasons. The fundamental institutional changes sweeping many emerging economies are characterized by their particular emphasis on developing market-enhancing institutions, and simultaneously, dominance of the state in guiding these fundamental changes (Andersson and Poon, 2001; Carney, 2008). China is a model illustration of such state-led MOIT (Fan, 1994; Lau et al., 2000). The theoretical arguments and

empirical investigation in this study therefore have wide applicability. Furthermore, China is a large emerging economy in which the institutional differences across its subnational regions (typically, provinces) are significant and easy to identify (Li and Park, 2006; Shi et al., 2012). This is very helpful in the examination of the institutional contingencies of the effect of political and market-oriented features because the rules for interactions between business groups and institutional environments tend to differ across these regions (Lu and Ma, 2008).

Employing data from 48 business groups from the Chinese textile industry, this study examines two research questions concerning the fundamental organizational and institutional mechanisms related to organizational failure of business groups in China. First, is the general trend of the entire population of business groups moving towards greater market orientation? This can be answered by comparing the failure likelihoods of business groups with different political and market-oriented features. Second, how will the links between these organizational features and failure likelihoods vary between different institutional environments? To answer this question, this study focuses on the political and market-focused characteristics of Chinese subnational regions to capture institutional contingencies.

The remainder of the chapter is organized as follows. Section 4.2 reviews the literature and delineates the background to address the important organizational features and environmental characteristics of surviving business groups during government-guided institutional transitions. The following sections propose a set of hypotheses in the context of China and conduct econometric analysis using data from business groups in the Chinese textile industry. The chapter concludes with a discussion of the implications of the findings.

## 4.2 Theoretical underpinnings and background

Empirical research on the roles of business groups in the institutional transition of emerging economies remains inadequate (Khanna and Yafeh, 2007; Zhang, 2014). Nevertheless, in the business group literature there has been a persistent concern about organizational features considered important for their prosperity or failure. These include the capability to implement business strategies (Kim et al., 2004; Lu and Yao, 2006; Ramaswamy et al., 2011), connections with governments (Ma et al., 2006; Yiu et al., 2005), and political rank (Guest and Sutherland, 2010; Lu and Ma, 2008). Let us begin with a brief review of these important interactive organizational features to develop a holistic research framework for the survival consequences of business groups with such features in the context of state-led MOITs such as that in China.

### *4.2.1 Fundamental organizational features*

Yiu and her colleagues propose that business groups are essentially bundles of two types of sources: politically "endowed resources" from governments and "acquired/developed resources" that are the product of intentional, market-oriented actions of business groups (Yiu et al., 2005). From an institutional embeddedness perspective (Granovetter, 1995), Yiu et al. (2005) identify some fundamental organizational features that are important in the coevolution of business groups with state-led MOITs: political embeddedness (embeddedness in political institutional structures) and market-oriented autonomy, which typifies the organizational foundation of endogenously developed resources.

*Political embeddedness*. In the context of state-led capitalism, the government is "the most important character" with which the roles of business groups and other

incumbent organizations are interactively constructed (Carney, 2008, p. 604). Embeddedness in specific relationships and political structures in which the government possesses regulatory power brings values. Highly politically embedded business groups might be granted financial resources necessary for competition, identities to affect industrial policies, and opportunities to participate in state-led industrialization projects or act as tools to promote market-oriented changes in major institutional fields such as enterprise reform (Guest and Sutherland, 2010; Rodrigues and Child, 2003; Yiu et al., 2005). On the other hand, political embeddedness also incurs political costs and constraints that reduce motivation for market-oriented changes (Ma et al., 2006; White et al., 2008). In this respect, the effect of political embeddedness is highly contextual and best captured by both relational features such as state ownership ties (Lu and Yao, 2006; Ma et al., 2006) and structural characteristics such as political rank (Guest and Sutherland, 2010; Lu and Ma, 2008).

*Market-orientated autonomy*. A successful government-guided and incremental MOIT accompanies a persistent market liberalization pressure that facilitates changes in the mindset of key players (e.g., business groups and governments in this study) in conceiving market-oriented changes. In the context of Chinese business groups, it is argued that "once the business groups are formed, they have autonomy in pursuing different strategies to acquire resources and develop market capabilities in order to enhance their strategic competitiveness" (Yiu et al., 2005, p. 187). From an organizational learning perspective, such market-oriented autonomy is theoretically illustrative (Crossan et al., 1999). This is largely the product of business groups' continuous learning about historical market-oriented tendencies in institutional transitions. Emerging as agents to resolve "institutional voids" and reform tools for

the emerging economy (Ma et al., 2006; Yiu et al., 2005), business groups become aware of the damage caused by remaining with old institutions, which motivates them to engage further in market-oriented institutional changes. Such self-enhancing autonomy helps business groups to move into more market-oriented institutional structures that improve their competitive advantage (Zhang, 2014 [Chapter 3]), and helps them perhaps to obtain political trust, because market-focused, institutional entrepreneurial features are increasingly appreciated by governments seeking agents of economic reform (Sun et al., 2010; Wu and Chen, 2011).

### *4.2.2 Institutional contingencies in a subnational regional context*

An examination of the links between business groups' organizational failure and political embeddedness, and simultaneously, market-oriented autonomy, will be helpful for answering the first research question; that is, whether and to what extent the general trend within business groups is evolving towards a market focus. However, it is also obvious that the performance of business groups "may well be related to the particular institutional environment in which they evolve" (Guest and Sutherland, 2010, p. 619). Specifically, the prosperity of business groups is also influenced by the structural characteristics of the institutional environment along both political and economic dimensions (Lu and Ma, 2008; Peng, 2003). In this sense, analysis of failure of business groups must take into consideration interactive contexts not only at the organizational level but also from the institutional environment side as institutional contingencies. However, to date, these institutional environment complexities still have not attracted enough attention in the business group literature, with few exceptions (e.g., Lu and Ma, 2008; Zhang, 2014 [Chapter 3]). In line with these studies, this study focuses on two important structural properties of the institutional

environment in emerging economy, first, business-group-related regulations and second, development of market institutions.

*Business-group-supporting policies*. Business groups can acquire political resources from interaction with the government, which are fundamentally determined by the institutions (e.g., policies) governing these interactions. In the history of many emerging economies, the government has been involved deeply in the formalization of business groups (Carney, 2008). The government—for example, in the context of China—has implemented a wide range of policies that facilitate the engagement of business groups not only in national market-enhancing industrialization strategies but also in industrial fields where government protection is lowered (Meyer and Lu, 2005; Yiu et al., 2005).

*Marketization*. This is defined as "the degree of market-based mechanism development and other institutions in order to achieve more efficient market functioning" in emerging economies (Shi et al., 2012, p. 1225). Marketization not only indicates the level of development of market-supporting "institutional arrangements and governance systems" (Roth and Kostova, 2003, p. 315) but also determines market-oriented isomorphic pressure shared among national and local governments, business groups, and other major agents.

To describe these institutional environmental characteristics, this study specifically focuses on institutional differences at the subnational level, because a significant proportion of fundamental marketization dynamics—particularly in those emerging economies undergoing large-scale, complex institutional changes—is constituted within such a subnational regional context (Chan et al., 2010; Shi et al., 2012). This is particularly applicable to China's institutional transition in which business groups,

along with rival organizational forms and governments, interact to shape market-oriented institutional logics (Meyer and Lu, 2005).

### *4.2.3 Business groups in China*

The emergence of business groups in China is the product of both organizational entrepreneurial autonomy and government promotion (Keister, 1998; Ma and Lu, 2005). In the past decades, on average, Chinese business groups have successfully coevolved with the institutional transition in major institutional fields (e.g., enterprise reform) by being involved in the corporatization campaign to convert themselves into "modern enterprises" in the 1990s (Meyer and Lu, 2005) and recently in commitments to transform themselves into large group corporations in a modern sense (CGCA, 2010). On the other hand, Chinese business groups are also characterized by their significant political embeddedness. Business groups formalized in the early days of economic reform were, almost entirely, state owned or collectively owned by non-private entities (Ma and Lu, 2005). State-owned and collectively owned business groups still have a dominant presence within the entire population of business groups (Carney et al., 2009a). Besides, some studies emphasize the political rank by which business groups position themselves in the country's hierarchical regulatory framework (Guest and Sutherland, 2010; Lu and Ma, 2008; Sutherland, 2009). These structural arguments coincide with the official taxonomy by the NBSC that classifies business groups by the level of approval authorities, as national business groups (by the State Council), provincial business groups (by provincial governments), or sub-provincial business groups (by sub-provincial governments).

Empirically, as an important operationalization, this study focuses on incumbent business groups formalized in the early periods of China's reform (1980s and 1990s).

This study categorizes these business groups by their initial political interactive characteristics: by initial ownership into state-owned business groups (SOBGs) and collectively owned business groups (COBGs), and by political rank, into national and provincial business groups (NPBGs) and sub-provincial business groups (SPBGs). Among them, SOBGs and NPBGs are treated as highly politically embedded business groups. Regarding the political aspect of the categorization, highly politically embedded business groups (SOBGs, NPBGs) tend to have greater incentives to carry about political "institutional baggage" (Roth and Kostova, 2003). In contrast, COBGs or SPBGs have fewer incentives to maintain government interrelationships in the form of collective ownership or embeddedness in low-level political regulative structures, because the value of such political capital tends to be affected by the market liberalization process more significantly (Lu and Ma, 2008; Peng, 2003).

On the other hand, there is significant difference in the degree of market orientation between these cohorts. High, formal political embeddedness is considered to be an impeding factor that hinders incumbents in China's business groups and large enterprise sector from developing market-oriented capabilities and incentives (Ma et al., 2006; Zhang, 2004). Highly politically embedded business groups tend to have a low degree of market orientation. According to the NBSC (2009b), among 419 non-corporatized, less market-oriented business groups, 72.8% are found to be state owned; such a low degree of market orientation has also been found in national business groups with the highest political rank (Guest and Sutherland, 2010).

By this, the empirical investigation is operationalized as comparing survival consequences between business groups initiated with high political embeddedness and low market-oriented autonomy (SOBGs, NPBGs), and business groups with initial low political embeddedness and high market-oriented autonomy (COBGs, SPBGs).

## 4.3 Hypotheses

The first hypothesis presents a possible scenario regarding the difference in failure rates of highly politically embedded business groups (SOBGs, NPBGs) and lowly politically embedded ones (COBGs, SPBGs).

### *4.3.1 The general trend within business groups*

The success of China's institutional transition over the past few decades is mostly the result of the selection of an incremental approach (Fan, 1994), which emphasizes the initiative of business organizations and their full engagement in economic reform (Lau et al., 2000; Ma and Lu, 2005). Such a successfully conducted transition to a market economy implies an irrevocable spread of market-enhancing institutions and continuous reduction of direct government intervention (Peng, 2003; Peng et al., 2005). This causes more pressure on business groups embedded more strongly in old institutional structures (Zhang, 2014). In the context of this study, this means those with high political embeddedness (SOBGs, NPBGs).

A dominant marketization process also causes changes in the logic bases of the government in conceiving qualified "reform instruments". In recent decades, the Chinese government has undertaken different strategies to promote reforms in different sectors of business groups. Although the government continues to use large, government-connected business groups as instruments for national projects such as the "go abroad" strategy (Sutherland, 2009), the selection criteria have been increasingly market focused. The State-Owned Assets Supervision and Administration Commission (SASAC) undertook profit-emphasizing capital and budget management programs with large business groups (Naughton, 2006), and performance assessment systems were used to encourage national trial business groups to conduct

market-focused behaviors. These have resulted in increasing difficulty for highly politically embedded business groups in deriving resources from government relations.

It is true that highly politically embedded business groups might have cultivated autonomy to a certain degree as required by the government in implementing industrialization strategies. However, because of the relative overembeddedness in old, less-market-oriented institutions (CGCA, 2004), they will find that their capabilities developed in government-led industrialization fields might not produce sufficient competiveness in dramatically enlarging market spheres where new enterprise structures with less historical burdening (e.g., private company) are more legitimate.

The aforementioned arguments might suggest that as a general trend, Chinese business groups relying more on their political embeddedness would have less chance to prosper as paragons that "act in an entrepreneurial, market oriented manner" (White et al., 2008, p. 229).

> ***Hypothesis 1*** Highly politically embedded business groups have a higher likelihood of organizational failure than lowly politically embedded business groups.

### *4.3.2 Subnational contingencies*

This subsection focuses on institutional differences at the subnational regional level to address institutional contingent aspects of the interactive organizational mechanisms comprehensively. Correspondingly, this study proposes hypotheses on the relative failure likelihoods of highly politically embedded Chinese business groups in subnational regions characterized by different degrees of business-group-promoting policy implementation and marketization pressure.

*4.3.2.1 Business-group-supporting policies*

Business group studies are consistent in the understanding of the existence of political interactive contexts. It is widely acknowledged the coercive power of governments, and their inherent incentives to guide market-oriented institutional changes. In a successful government-guided, market-oriented institutional transition context, connection with the government, either through formal ties such as state ownership or by establishing informal ties via broker agents (Sun et al., 2010), is crucially important for domestic incumbents such as business groups.

Lu and Ma (2008) conduct an empirical study on the contingent value of business group affiliation in influencing the performance of international joint ventures (IJVs) of Chinese domestic companies. They focus on foreign direct investment (FDI) restriction policies as an important characteristic of the institutional environment at the provincial level and argue that in provinces where FDI is politically restricted, IJVs of group-affiliated companies perform better than their counterparts. From my point of view, similar to FDI regulation policies discussed in Lu and Ma (2008), business-group-supporting policies can be regarded as a politically interactive characteristic that defines the positions of business groups within industrial fields. In recent decades, the Chinese government has pursued a series of preferential policies for business groups, covering a wide spectrum of market-based activities such as financial activities and technology development (NBSC, 2009b). These crucial policies are continuously creating significant value for most business groups in China (Guest and Sutherland, 2010).

Because of the centralization characteristic and strong top-down mandates of China's political system (Caulfield, 2006; Qian et al., 1999), these policies are usually enacted by the national government and implemented by provincial and municipal

governments with few amendments. Therefore, variation in degrees of implementation of these preferential policies in the subnational regions (at the provincial level) can be used to illustrate the relatively consistent interactive political mechanisms. That is, if government support is crucial for the prosperity of highly politically embedded business groups, this effect will dominate in some distinct subnational regions:

> ***Hypothesis 2*** In regions where supportive policies have been implemented comprehensively, compared with lowly politically embedded business groups, highly politically embedded business groups are less likely to fail.

*4.3.2.2 Marketization*

Inspired by the prosperity of business groups in emerging Asian economies, Carney (2008) proposes a "state-led industrialization hypothesis", arguing that those business groups initiated with close relationships with the state can still prosper through their political embeddedness and "further strengthen and consolidate their position" during the market liberalization process (Carney, 2008, p. 601). The industrialization hypothesis is theoretically meaningful for interpreting the probable dominance of politically embedded business groups.

In the context of successful market-oriented, government-guided institutional transitions, the significance of the industrialization hypothesis relies on the extent to which the government prefers to use these business groups as instruments for market-enhancing reforms. Being such reform agents, business groups can formalize capabilities to compete in important industries selected by the government and probably can simultaneously develop market orientation to some extent as required by the government. Nevertheless, in such situations, market-oriented autonomy would

not take top priority. In the typical case of government-led institutional transition as described in the industrialization hypothesis, the progress of market liberalization is comprehensively managed. Competitive pressure from players outside industrialization fields will of course exist, however, at a modest degree that cannot provide highly politically embedded business groups with sufficient incentives to react to such market-focused pressure.

China is well known for its successful practice of incremental, endogenously driven development in recent decades (Lau et al., 2000). Under such circumstances, it is theoretically doubtful that when active involvement of central business organizations such as highly politically embedded business groups is lacking, an endogenous, nationwide marketization process can be gradually realized without significant involvement by exogenous forces. The interaction between highly politically embedded Chinese business groups and the government might reassemble the dual-track characteristics of China's economic reform (Fan, 1994), to be mutually enhancing towards a market focus.

If such dual-track mechanisms are significant enough and work well with politically-supporting mechanisms, there should be a negative association between the marketization degree of the institutional environment and failure rates of highly politically embedded business groups in the subnational context. For highly politically embedded business groups, the gradual reform provides not only government support but also the necessary institutional and macroeconomic foundations for adopting new market-oriented rules, norms and values that prevail in the economy. This makes them the dominant players in competitive environments such as the regions where marketization degree is high. In contrast, business groups with less political embeddedness in these regions will find that they are stuck in a disadvantageous

situation: to overcome resource constraints caused by a lack of government connection, they need to commit more to market-focused strategies with which they face significant institutional difficulties that their political interactive characteristics, however, cannot immediately resolve (Meyer and Lu, 2005).

> ***Hypothesis 3*** Compared with lowly politically embedded business groups, highly politically embedded business groups are less likely to fail in regions characterized by a high degree of marketization.

## 4.4 Methodologies

### *4.4.1 Research setting and sample issues*

#### *4.4.1.1 Industry setting*

Specifically, this study chooses the textile industry to examine the scenarios predicted by the proposed hypotheses. The textile industry is a major sector of China's "conventional industries", occupying a significant presence in the total industrial output (Brandt et al., 2008). This is a typical industrial sphere open to comprehensive global market competition (Yeung and Mok, 2004; Zhang, 2011 [Chapter 5]), in which abnormal government intervention tends to be suppressed (CEI, 2004). During the 2000s, the industry grew steadily while business groups kept relatively stable positions in the industry (Figure 2.5). These characteristics provide a well-balanced setting for addressing concurrent political and market-based interactive mechanisms.

#### *4.4.1.2 Sample and data*

Obtaining business-group-level information is always a challenging issue for studies on business groups in China. To overcome this difficulty, this study focuses on

business groups with affiliates listed on domestic stock exchanges. In China, listed companies need to disclose publicly a wide range of information as required by the regulator, while business groups have no such disclosure obligation. This study was able to derive detailed information on business groups' interactive features (ownership, political rank) from the public documents of their listed affiliates (e.g., annual reports, prospectuses, and announcements) and supplemented this with necessary information from electronic sources such as the RESSET database. More importantly, this operationalization provides an effective method of characterizing the organizational failure of Chinese business groups.

Other information regarding the organizational features of business groups (e.g., assets, location, and industry) was collected from various editions of the *Large Corporations of China* (NBSC, 2001b–2009b), which were also used to calculate subnational (provincial level) indexes of business-group-supporting policies. Data regarding provincial marketization are from the National Economic Research Institution (NERI).

The initial sample consisted of all business groups identified by the NBSC as engaged in textile manufacturing (CSIC 17, 18, 19, and 28) and those engaged in wholesaling and retailing (CSIC 63 and 65) of textiles and maintaining certain textile manufacturing businesses following selection criteria in previous studies (CEI, 2004; Colpan, 2008; Zhang, 2014 [Chapter 3]), during the period 2000–2008. These business groups were then screened according to two critical principles: (1) the business group had its core affiliate (the largest listed affiliate) listed on domestic stock exchanges before 2005,[22] and (2) the core affiliate was also a textile company

[22] Six business groups with their core affiliate listed after 2000 (specifically, during 2001–2004) were included. The necessary historical information for identifying their initial organizational status (in 2000) and failure status (losing control over the core affiliate or not)

(with its main business being textiles for at least one year). The final sample comprises 48 Chinese textile business groups (see Table A4.1).

### *4.4.2 Modeling organizational failure of business groups*

In this study, organizational failure of a business group is defined as a focal event in which the business group lost control over its largest listed affiliate (core affiliate). Regarding "losing control", this study adopts a property-rights-based approach. It means that the business group was no more the largest shareholder of the core affiliate (either directly or indirectly).[23] This assessment is reliable because such crucial changes are required to be disclosed publicly. This is also unambiguous, as most business groups in the sample owned only one listed affiliate during the sample period. Compared with alternative measures such as bankruptcy and firm exit (Fama and French, 2004; Garg and Delios, 2007), this measure coincides better with the research themes in the current study. First, it reflects fundamental political and institutional contexts in China. Incremental listing—listing their "core" affiliates then continuously injecting the remaining components into the core—is an essential part of the corporatization program of Chinese business groups (CGCA, 2004; Zhang, 2004). Losing control over the major affiliate implies an interrupted process of market-oriented evolution and even deprivation of business group identity. Second, it sufficiently captures the failure from a market-focused dimension of business failure as in Honjo (2000). In a study on Chinese business groups with listed affiliates in the 2000s (Zhang, 2014 [Chapter 3]), it is reported that in average these business groups have 56.7% of their assets allocated in their listed affiliates. Hence, losing such core

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during the sample period can be gathered from the prospectuses. Excluding these observations does not change the analytical results qualitatively as reported in Table 4.2.

[23] Table A4.2 and Figure A4.1 illustrate how such information can be gathered from listed affiliates (particularly, the core affiliate) of business groups and other public sources.

affiliates is business failure in nature. Besides, I examined the negative consequences of organizational failure events and found that losing the core is accompanied (or followed) by conventional market-based events, such as bankruptcy, which, however, only capture a small portion of failed cases in the sample.

To utilize the longitudinal event data for an event history analysis, the survival status is recorded by *business group failure*, which was coded zero (surviving) or one (failed). Business groups were assumed to be at risk of failure in each year during the sample period 2000–2008 (treated as right-censored) or from 2000 to its year of failure. Correspondingly, *business group duration* was calculated to measure the duration of survival (from 2000 to its year of failure or to 2008).

Following the related empirical literature (Garg and Delios, 2007; Lu and Ma, 2008), this study utilizes a Cox proportional hazard model to estimate the effects of the organizational and regional interactive features on business groups' failure likelihoods. The Cox proportional hazard model can be specified as:

$$h(t) = h_0(t)exp(X\beta), \quad (1)$$

where $h(t)$ is the rate at which business groups fail at time $t$ given that they have survived in $t$–1, $h_0(t)$ is the baseline hazard function, and $X\beta$ are the covariates and parameters to be estimated.

The Cox proportional hazard model has the advantage over parametric models (e.g., log-normal and Weibull) that the particular form of the baseline hazard function is left unspecified. This is particularly appropriate for the current study, in which the main interest is on estimating the effect of the interactive characteristics that determine business group failure but not on the specification of the baseline hazard function.[24]

[24] Theoretically, the analytical framework of this study also coincides with the proportional hazard assumption well. In essence, this study argues about the persistence of initial political

### *4.4.3 Explanatory variables*

#### *4.4.3.1 Organizational features*

Political embeddedness (simultaneously, market-oriented autonomy) is represented by a dummy variable, *high political embeddedness* (*HPE*). The variable is measured by two alternative indicators. First, *SOBG* takes a value of one when the business group was initially state owned or of zero when the business group was initially collectively owned. Second, *NPBG* is coded as one when the business group falls into the relevant categories (national business groups, provincial business groups) or as zero for sub-provincial business groups. In general, political embeddedness of business groups in the sample exhibits a significant continuity. The political rank, as one kind of political title, rarely changes once designated; regarding ownership status, since 2000 (the benchmark year for identifying initial status), only 13 groups (27.1%) have changed their ownership status (because of privatization).

#### *4.4.3.2 Regional characteristics*

*Supportive polices*. The NBSC annually reported provincial statistics on the implementation of the main business-group-supporting policies: (1) comprehensive investment autonomy, (2) overseas financing rights, (3) provision of security to foreign entities, (4) independent import and export rights, (5) consolidated tax payment, (6) rights to contract overseas projects, (7) rights to approve foreign business affairs, (8) rights to establish technology and R&D centers, and (9) rights to establish financial companies (NBSC, 2001b–2009b). For each province, the degree of policy implementation for each policy (the percentage of business groups that

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and autonomous interactive characteristics, which results into persistent (therefore, to some extent "proportional") distinctions in hazard ratios of business groups in the two different cohorts.

adopted this policy) is calculated. *Supportive polices* is simply the mean of these nine percentages, which measure the overall degree of supportive policy implementation in the province (see Table A4.3 for an illustration).

*Marketization*. Researchers have proposed several indexes of the development of institutional environments in subnational regions in China, focusing on elements such as privatization of SOEs, market liberalization and improvement of the legal system (Li and Park, 2006; Seo et al., 2010). A more holistic index was developed by the NERI, which reports annual scores reflecting the degree of relative marketization of each province using a multilevel and multicategory assessment system (Fan et al., 2011).[25] Therefore, following earlier studies (e.g., Shi et al., 2012), this study uses the provincial marketization index by the NERI to capture the overall improvement in building market-oriented institutions in Chinese provinces (see Table A4.4).

Additionally, the effect *of size*, calculated as the natural logarithm of the average of the business group's total assets from 2000 to 2004 (in RMB), was also controlled for. Size is widely accepted as a general proxy of resources accumulated in the organization (Yiu et al., 2005), and in politically interactive fields, as an important characteristic of business groups in interacting with the government and its agencies (Meyer and Lu, 2005).

[25] The provincial-level index of NERI is a score calculated as the sum of the weighted scores of 23 fundamental elements (e.g., reducing government intervention on enterprises, easing non-tax burden of enterprises, and reducing the size of government). These elements are classified into five categories: relationship between government and market, development of non-state-owned economic sectors, development of commodity markets, development of factor markets, and development of market intermediaries and legal-institutional environments. Some of these elements are further divided into several sub-elements.

## 4.5 Empirical results

### *4.5.1 The model*

Among 48 business groups in the sample, 11 (22.9%) were found to be failed business groups. The average duration of survival for business groups in the sample is 8.6 years (Figure 4.1).

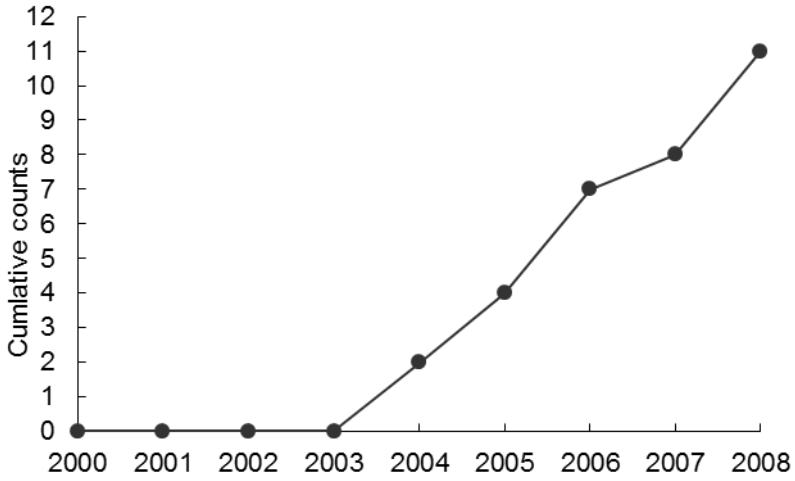


**Figure 4.1** Cumulative counts of organizational failures in the sample, 2000–2008

**Table 4.1** Descriptive statistics and Pearson correlations

| Variables | Mean | SD | 1. | 2. | 3. | 4. |
|---|---|---|---|---|---|---|
| 1. SOBG | 0.672 | 0.470 | 1 | | | |
| 2. NPBG | 0.341 | 0.474 | 0.503 | 1 | | |
| 3. Supportive policies | 53.651 | 5.571 | –0.112 | –0.357 | 1 | |
| 4. Marketization | 7.578 | 1.952 | –0.260 | –0.185 | –0.112 | 1 |
| 5. Size | 21.901 | 0.661 | –0.131 | 0.066 | 0.089 | 0.063 |

**Note:** N=411.

Table 4.1 presents the descriptive statistics and a correlation matrix of covariates used in this study. The regional characteristic variables (supportive policies and

marketization) were demeaned before interacting them with HPE. Table 4.2 displays the results of the regression analysis, in which HPE was represented by alternative measures (SOBG for Models 1 and 2, NPBG for Models 3 and 4). All models are statistically significant. Based on the global Schoenfeld test (Grambsch and Therneau, 1994), the assumption of proportional hazards holds for all four models.

### *4.5.2 Hypothesis 1*

Hypothesis 1 is supported. Regarding the relative dominance of political and market-focused interactive mechanisms in affecting the failure of business groups, Hypothesis 1 predicts a market-focused scenario in which highly politically embedded business groups have higher failure rates. The coefficients of HPE in all models are consistently positive and statistically significant. This implies that whatever measure of government ownership characteristic (SOBG) or political rank (NPBG) is used, the failure likelihoods of highly politically embedded business groups are higher than their counterparts. Meanwhile, the results regarding size might provide additional evidence: the positive coefficients of size (significant in Models 1 and 2) imply a high failure risk confronting large business groups.

### *4.5.3 Hypothesis 2*

Hypothesis 2 is supported. Hypothesis 2 argues for a consistently significant role of the political interactive characteristic of institutional environments in determining the failure of business groups. It is expect that in regions where supportive policies were implemented comprehensively, highly politically embedded business groups will confront less risk of failure. The interaction terms between HPE and supportive policies are found to be consistently negative in Models 2 and 4, and statistically significant in Model 2. These results lend support to Hypothesis 2.

**Table 4.2** Results of Cox regression analyses

| | HPE measured as SOBG | | HPE measured as NPBG | |
|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 |
| High political embeddedness (HPE) | 1.711 * | 4.999 *** | 1.237 ** | 2.224 ** |
| | (0.985) | (1.050) | (0.628) | (0.976) |
| High political embeddedness × | | –0.462 *** | | –0.174 |
| Supportive policies | | (0.132) | | (0.113) |
| High political embeddedness × | | –0.998 ** | | –0.757 ** |
| Marketization | | (0.490) | | (0.323) |
| Supportive policies | | 0.398 *** | | 0.134 |
| | | (0.106) | | (0.094) |
| Marketization | | 0.816 ** | | 0.386 * |
| | | (0.402) | | (0.221) |
| Size | 0.446 ** | 0.560 ** | 0.290 | 0.582 |
| | (0.219) | (0.249) | (0.242) | (0.360) |
| Wald Chi-square | 12.82 *** | 36.33 *** | 9.81 *** | 12.22 * |
| Log-likelihood | –38.90 | –37.09 | –39.00 | –37.25 |

**Notes:** *p < 0.1, ** p < 0.05, *** p < 0.01; numbers in parentheses are robust standard errors.

### *4.5.4 Hypothesis 3*

Hypothesis 3 is supported. The hypothesis focuses on the extent to which highly politically embedded business groups can utilize the support of political embeddedness to engage autonomously in the process of marketization. In Models 2 and 4, the coefficients on the interaction term between HPE and marketization are all significantly negative. These results indicate that relative to their counterparts, highly politically embedded business groups have lower failure likelihoods in regions characterized by a higher degree of marketization, as proposed by Hypothesis 3. Together with Hypothesis 2, these results jointly suggest that even business groups with high political embeddedness can also be an autonomous agent for marketization,

when provided necessary pressure from the institutional environment and the government.

## 4.6 Discussion and conclusions

This chapter introduced a new approach to addressing the role of business groups in market-oriented institutional transition, a key theme in the recent literature on business groups in emerging economies (Carney, 2008; Khanna and Yafeh, 2007) and of this dissertation. The approach is theoretically insightful and straightforward: the role that business groups collectively play in a given institutional environment may be captured by comparing failure likelihoods of business groups with distinct interactive features. Therefore, in contrast with Chapter 3 that focuses on performance effects associated with the process of IER, this chapter places more emphasis on organizational features enabling/hindering such process.

Specifically, this study studied the failure consequences of business groups initiated with different political and market-based interactive organizational endowments, and the institutional contingency of these interactive organizational mechanisms in the context of China. Drawing insights from previous studies, two fundamental organizational features that characterize the capabilities and tendencies of business groups to engage in MOIT, namely political embeddedness and market-oriented autonomy, were considered. This was then applied to the context of China, where business groups are classified into two broad categories: highly politically embedded business groups and lowly politically embedded business groups. Utilizing this taxonomy and the subnational regional institutional differences in China, and employing data from business groups in the Chinese textile industry, this study conducted an econometric analysis of differences in failure rates of these business

groups and the institutional contingencies of these survival mechanisms.

The empirical investigation began with an examination of the relative dominance of the fundamental organizational features in determining the failure rates of business groups in a successful government-guided institutional transition as in China. The possible survival scenario is predicted in Hypothesis 1. It is found that business groups with high political embeddedness (and simultaneously low market-oriented autonomy) confront higher failure risk. This finding is consistent with an optimistic assertion in the literature on Chinese business groups that during the institutional transition in China, the general trend in the evolution of the entire population of business groups is market oriented. For example, White et al. (2008) argue that in coping with the increasing pressure of marketization, Chinese business groups can cultivate their market orientation. Ma et al. (2006) find that business group affiliation positively moderates the negative relationship between state ownership and the performance of Chinese listed companies. They therefore argue that Chinese business groups seem to have cultivated their market-orientated incentives and capabilities to a certain degree by filling the so-called "state-ownership voids". Analysis in this study provides supportive evidence for ascertaining such a market-oriented tendency as a general commonality within Chinese business groups.

Hypothesis 2 argues for a relatively pronounced value of political interactive contexts in determining the failure of Chinese business groups. It is found that in the Chinese subnational regional context for the hypothesis that in provinces where business-group-supporting policies were implemented more comprehensively, business groups initiated with heavy political embeddedness would be less likely to fail. This finding coincides with the reality in China and arguments of previous studies. During China's incremental institutional transition, the government's persistent

enthusiasm for active involvement in—sometimes, direct control over—market liberalization processes remains obvious (Smyth, 2000). Such a historical context endowed some business groups with an initially dense political embeddedness that accounts for a significant portion of the legitimacy and capabilities that they possess. Several empirical studies argue about advantages enjoyed by these business groups. Lu and Ma (2008) argue that nation-level business groups under the administration of the State Council can derive political capital from their close relationship with the national government and can utilize this to fuel their affiliates. They find that international joint ventures (IJVs) under the umbrella of national business groups perform better than IJVs affiliated with independent companies. In a similar vein, Guest and Sutherland (2010) focus on 100 or so national trial business groups. They examined the performance effect of the overall prominent position of these "national champions" in the country's regulative framework (e.g., a variety of business-group-supporting policies) at the affiliated company level, and they find supportive empirical evidence. Analysis in this study extends the arguments of these studies, by revealing the existence of political interactive contexts and connecting this with the population dynamics of business groups.

Hypothesis 3 asks whether there are circumstances under which highly politically embedded business groups can coevolve with the marketization process. It is found that business groups with high levels of political embeddedness prosper in Chinese provinces characterized by a high degree of marketization. One interpretation is that these highly politically embedded business groups have formalized distinctive motivations and capabilities as a response to market-focused pressure from both the marketization and the government. This finding has important implications for the promotion of transformation among politically embedded business groups. In recent

decades, governments of major emerging economies have upgraded their industrialization strategies, from a simple import substitution strategy in early periods of reform (Carney, 2008) to facilitating overseas investments by domestic enterprises (Garg and Delios, 2007; Sutherland, 2009). In industrial sectors, enterprises with greater entrepreneurial, market-oriented autonomy are politically favored (Wu and Chen, 2011); business groups involved in the industrialization process are provided with motivation to commit more to develop technologically complex, market-focused capabilities. The accumulated knowledge and resources can, in turn, be used to expand their territory into more market-centered, less state-managed industrial spheres. Under this circumstance, the "friendly" interrelationship with the government can work well as the converter of political resources for such entrepreneurial trials.

From the perspective of lowly politically embedded business groups, the complexity of the organizational and institutional mechanisms that underpin the survival or failure of business groups during MOITs can be further demonstrated. Although the general trend within sample business groups is towards market orientation, specifically reflected in the relative advantage of lowly politically embedded business groups over their counterparts (Hypothesis 1), it is clear that this advantage is highly contextually constrained, and is available only in institutional environments with relatively low levels of marketization (Hypothesis 3). It is argued that with the process of MOIT, such institutional environments will naturally decline (Peng, 2003). Therefore, in the worst-case scenario, the general market-oriented trend within these business groups may be disrupted or reversed. This is a negative scenario that business group researchers and institutional scholars would not wish to see.

In conclusion, this study provides a promising contribution to our understanding of fundamental organizational and institutional mechanisms that shape the distinctive

roles, population dynamics, and failure of business groups during MOITs. The results of the Cox regression analyses show the complexity of the proposed organizational and institutional mechanisms. It is possible for market-oriented autonomy to dominate political embeddedness in determining the overall prosperity of business groups. However, the effect of organizational mechanisms is highly contingent on the specific institutional conditions that confront a business group.

# Chapter 5

# Diversification, Group affiliation, and Performance of Listed Firms in China[26]

*Employing data on listed firms in the Chinese textile industry during the period 2001–2005, this chapter analyzes the performance effects of diversification strategies and the impact of group affiliation on these effects. I clarify the empirical results by incorporating institutional embeddedness renewal (IER) considerations.*

## 5.1 Introduction

The impact of diversification strategy on firm performance has been a prominent theme in strategic management and other fields such as enterprise economics and corporate finance (Lang and Stulz, 1994; Palepu, 1985; Ramaswamy et al., 2011; Rumelt, 1974; Silverman, 1999). In recent years, there has been a fairly steady stream of research on diversification outcomes in emerging economy contexts, which take as promise that the value-creation potential of diversification is determined by characteristics of the institutional environment (Chakrabarti et al., 2007; Peng et al., 2005; Wan, 2005), and moderated by connections with central business organizations

[26] An earlier version of the chapter: Zhang, Qiang (2011), "Diversification and performance of group-affiliated firms during institutional transitions: the case of the Chinese textile industry", *American Journal of Economics and Business Administration*, Vol. 3 No. 2, pp. 234-246.

such as business group (Khanna and Rivkin, 2001; Lu and Yao, 2006; Ramaswamy et al., 2011; Sing et al., 2007).

This study offers complementary insights from a novel sample of listed firms drawn from the Chinese textile industry in the 2000s. The aim of this study is threefold. First, it investigates the extent to which firms can conduct diversification strategies successfully in such an institutional setting characterized by notable market-oriented changes. To a certain extent, the great majority of studies on diversification effects in emerging economies are from an institution-based view of business strategy (IBVBS), emphasizing the dominance of the institutional environment in determining the relative value of business strategies (Kedia et al., 2006; Lee et al., 2008; Peng et al., 2005; Wan, 2005). In emerging economies undergoing market-oriented institutional transition (MOIT), "intermediate institutions—such as financial and market intermediaries—are inefficient or absent" (Chakrabarti et al., 2007, p. 101); in other words, there tends to be institutional voids (Khanna and Palepu, 2000). The existence of institutional voids implies that in the context of emerging economy, diversified firms might perform better than specialized firms by internalizing such functions that substitute for the imperfect external product, capital and labor markets. Unfortunately, the empirical studies have yielded mixed results (Chakrabarti et al., 2007; Lin and Su, 2008; Singh et al., 2007). Such an inconsistency suggests that the relationship between diversification and firm performance may be also influenced by the way that the firm interconnects with the institutional environment, i.e., by affiliation to a business group (Ramaswamy et al., 2011; Zhang, 2014).

Second, I examine how group affiliation moderates the relationship between diversification and performance of these firms. Given the significance of business

groups in emerging economies, there has been an increasing concern about the relationship between group-affiliated firms' diversification strategies and their economic performance (e.g., Chakrabarti et al., 2007; Khanna and Palepu, 2000; Kim et al., 2004; Lins and Servaes, 2002; Singh et al., 2007). In many emerging economies, group affiliation has often been found to be profitable (Carney, 2008; Khanna and Yafeh, 2007). Group affiliation may benefit firms by providing access to resources pooled within the business group (Chang and Choi, 1988; Khanna and Palepu, 2000) and embedded in institutional environments (Granovetter, 1995). Therefore, if a group-affiliated firm can access the substantial group resources and use them to fuel its diversification strategy, a higher-performance effect of diversification should be possible. However, extant empirical research on firm diversification in emerging Asian economies has produced inconsistent results (Chakrabarti et al., 2007; Ramaswamy et al., 2011; Singh et al., 2007). Furthermore, although Chinese business groups have attracted increasing research attention in recent decades, researchers have just begun to study the diversification of firms affiliated with these business groups (Lu and Yao, 2006). My investigation will enrich our understanding of the diversification and business groups in the context of China.

Third, on the basis of the various arguments in previous institution-based studies of business groups and diversification, I add institutional embeddedness renewal (IER) to ascertain performance consequences of diversification by group-affiliated firms. From an institutional embeddedness perspective, there might be differences in the performance outcomes of diversification by the group-affiliated firms and by independent firms during the MOIT. Fundamentally, the value of diversification strategies is determined by the institutional environment (or dynamically, the MOIT) and how the firm is linked with this. Business groups are prominent players that have

to conduct IER to cope with market-oriented changes within institutional structures. Hence, as one part of the business group, group-affiliated firms might be granted both resource and cost associated with the IER. In this respect, the impact of group affiliation on the performance outcomes of diversification strategies by the firm during the MOIT will not be simply even, but inevitably contextualized.

Such institutionally contextualized tendency does raise specific requirements for more delicate analytical settings. This study accomplishes this by using 2001–2005 data on listed firms from the textile industry of China for the empirical analysis. The country environment and industry background offer a unique institutional setting to take into considerations possible influences of the IER of business groups (Zhang, 2014). Particularly, the unique relationship between Chinese business groups and their listed affiliates is thought to be suitable for delineating the complexity of diversification strategies of group-affiliated firms. One reason is that the listed affiliates are involved deeply in the process of incremental listing, which is known as an essential part of IER of Chinese business groups during the 2000s.[27]

In Section 5.2, I provide the theoretical foundations and institutional background for this study. Section 5.3 deals with the methodological issues. Section 5.4 presents the results of econometric analysis. Section 5.5 provides a brief concluding remark.

## 5.2 Literature review and background

### *5.2.1 Diversification strategy and economic benefits*

Diversification strategy is the entry of a firm into new lines of activity (Ramanujam and Varadarajan, 1989). In this sense, a diversified firm is defined as a firm that

[27] Needless to say, selecting listed firms as the sample for analysis is a common approach for empirical studies of business group effects (see Guest and Sutherland, 2010).

operates in different businesses (industries) simultaneously (Pitts and Hopkins, 1982). Sources of performance outcome of diversification strategy has attracted substantial interest during the past decades (e.g., Hill and Hoskisson, 1987; Lang and Stulz, 1994; Palepu, 1985; Rumelt, 1974; Silverman, 1999).

Hill and Hoskisson (1987), one early work in the line of these studies, propose two fundamental economic benefits that diversified firms can achieve through specific diversification strategy. *Synergistic economies*, often referred to as "economies of scope" (Rumelt, 1974), "can be realized by firms that have diversified into a related set of businesses" (Hill and Hoskisson, 1987, p. 332). *Financial economies* are "associated with firms that have diversified into unrelated areas" (Hill and Hoskisson, 1987, p. 332). By pursuing unrelated diversification, firms can "achieve a more nearly optimal capital allocation of resources, and 'police' the divisions more effectively than the external capital market could if each division were an independent enterprise" (Hill and Hoskisson, 1987, p. 333).

### *5.2.2 Entropy diversification measures*

To verify the economic benefits as proposed in Hill and Hoskisson (1987), we need specific diversification measures to conduct empirical examinations. Palepu (1985) surveyed diversification effect studies in the 1970s and 80s, argues that one reason these studies have not depicted significant diversification effect is that their measures could not identify the distinction between unrelated and related diversification. Responding to this, Palepu (1985) introduced the entropy diversification measures, which have become a standard method for diversification studies today (e.g., Fukui and Ushijima, 2007; Lee et al., 2008; Lu and Yao, 2006; Ramaswamy et al., 2011; Singh et al., 2007).

The entropy measure of diversification takes the general form:

$$DIV_{it} = \sum_{j=1}^{J_{it}} \left( \frac{s_{j,it}}{TS_{it}} \right) \ln \left( \frac{TS_{it}}{s_{j,it}} \right), \quad (1)$$

where $j$ indicates an industry in which the firm has business ($j = 1,...,J$), $s_j$ is the firm's sales in industry $j$ ($s_j > 0$), and $TS$ is the firm's total sales.

The entropy measure is attractive most because the total entropy $DIV_{it}$ can be divided into two separate components (unrelated diversification $UDIV_{it}$ and related diversification $RDIV_{it}$). Let us consider the case in which a firm has pursued diversification into $G$ industry groups. The sales in the industry group $g$ is then

$$S_{g,it} = \sum_{j=1}^{J_{g,it}} s_{j,it}, \quad (2)$$

where $j = 1,\ldots,J_g$ ($J_g$ is the number of industries in the industry group $g$), and $s_j$ is the firm's sales in industry $j$ ($s_j > 0$).

The degree of unrelated diversification of firm $i$ in period $t$, $UDIV_{it}$ is the entropy exist across these isolated industry groups, which can be calculated as:

$$UDIV_{it} = \sum_{g=1}^{G_{it}} \left( \frac{S_{g,it}}{TS_{it}} \right) \ln \left( \frac{TS_{it}}{S_{g,it}} \right), \quad (3)$$

where $g = 1,\ldots,G$ ($G$ is the number of industry groups in which the firm has business), $S_g$ indicates the firm's sales in the industry group $g$, $TS$ indicates the firm's total sales.

The degree of related diversification of firm $i$ in period $t$, $RDIV_{it}$, is computed by:

$$RDIV_{it} = \sum_{g=1}^{G_{it}} \left( \frac{S_{g,it}}{TS_{it}} \right) E_{g,it}, \quad (4)$$

where $E_{g,it} = \sum_{j=1}^{J_{g,it}} \left( \frac{s_{j,it}}{S_{g,it}} \right) \ln \left( \frac{S_{g,it}}{s_{j,it}} \right)$ is the entropy within industry group $g$, $j$ indicates an industry in the industry group $g$ ($j = 1,\ldots,J_g$), $s_j$ is the firm's sales in industry $j$ ($s_j > 0$).

### *5.2.3 Diversification effects in emerging economies and moderating roles of group affiliation*

#### *5.2.3.1 Diversification effects in emerging economies*

A dominant theoretic strand in the institution-based studies of diversification is that the benefits of diversification arise, at least partly, from the diversified firms' internal markets that are considered to be efficiently established while external market conditions are still imperfect and institutional foundations remain inadequate (see arguments in Khanna and Yafeh, 2007). In essence, as the extent of such internal market building are shaped by the fundamental changes of institutional environments (in other words, the institutional transition), the influence of the institutional environment will dominate across group affiliated firms and independent firms.

A successfully undergone MOIT tends to decrease the relative value of the internal markets of diversified firms (Peng et al., 2005). Building internal markets that are soundly efficient than the external markets is a difficult task in late stages of the MOIT (Kedia et al., 2006; Kim et al., 2004; Lee et al., 2008). Therefore, it would not strange that empirical studies on firm diversification effects in emerging economies have produced mixed results (e.g., Chakrabarti et al., 2007; Lin and Su, 2008; Singh et al., 2007). Employing a sample of 816 listed firms from 74 two-digit industries in China during the period 2000–2002, Lin and Su (2008) reported a significant positive effect of diversification on firm value (measured by Tobin's Q), and the result is robust to the use of alternative diversification measures such as the number of segments, Herfindahl index or dummy measures. They argue that the positive relationship between diversification and firm value implies that diversified firms may benefit relatively easily from their internal capital markets in China, "where it is

costly or impossible to raise external capital" (Lin and Su, 2008, p. 408). In contrast, Chakrabarti et al. (2007) studied 3117 firms in six East Asian economies during the period 1988–2003. They found positive impact of diversification on ROA only in the least developed environments–Indonesia. Moreover, Sing et al. (2007) studied 846 Indian firms during the post-reform era of India (1998–2000) and reported negative impacts of diversification on firm ROA and ROE.

Several empirical issues can be helpful to identify sources of such inconsistency. First, these studies actually employ only unrelated diversification measures; more insightful findings might be achieved if related diversification measures is included as argued in early diversification studies (e.g., Palepu, 1985). Second, the choice of suitable performance measure is critical if considering the long-term tendency of unrelated diversification in creating value.

*5.2.3.2 Moderating roles of group affiliation*

In the literature of business group study, there is an increasing concern about the relationship between diversification strategies and economic performance in emerging economies (e.g., Chakrabarti et al., 2007; Khanna and Palepu, 2000; Kim et al., 2004; Lins and Servaes, 2002; Singh et al., 2007).

However, it seems that these studies are continuing the tradition from mainstream studies on diversification effects in emerging economies. Placing focus on financial economies of diversification, they argue for the possibility that group affiliation can benefit firm's diversification. They argue that in emerging economies, group affiliation is found to be profitable under certain circumstance (Carney, 2008; Khanna and Yafeh, 2007); if so, it will be possible that group affiliation may benefit firms by providing access to substantial resources pooled in the business group and hidden in

the institutional environment.

Researchers have expected to see that if group-affiliated firms can access such group resources and use them to fuel its diversification strategy, a higher-performance effect of diversification compared with independent firms should be possible. Unfortunately, the empirical studies have yielded mixed results (e.g., Chakrabarti et al., 2007; Ramaswamy et al., 2011; Singh et al., 2007). Ramaswamy et al. (2011) studied 185 Indian listed firms, and found that group affiliation positively moderates the negative effect of diversification on firm ROA. Singh et al. (2007) reported same positive impact of group affiliation on firm ROA for Indian firms in the period 1998–2000. In contrast, although using ROA as performance measure, Chakrabarti et al. (2007) only found evidence supporting that group-affiliated firms perform diversification better in two of six East Asian economies, Singapore and Thailand.

*5.2.3.3 Taking into consideration the IER of business groups*

From our point of view, the inconsistency within previous studies on the role of group affiliation on diversification effect suggests that the relationship between a group-affiliated firm's diversification and performance may reproduce the complexity of business group–institutional environment interactions. Previous studies on diversification and business group have paid little attention to purposeful IER actions of business groups that is the focus of the dissertation. Given the prominence and (possible) active role of business groups in emerging economies, incorporating the IER process considerations can contribute to extending the theoretical foundations of research on diversification strategy in emerging economies.

The institutional embeddedness of business groups is the result of their intentional IER actions to manage their interconnections with the institutional environment

(specifically, institutional structures). Therefore, the extent to which business groups have effectively conducted the IER will has inevitable influences on the diversification strategies of the firms affiliated with them.

This can be viewed at both the collective level and the organizational level of the IER. First, at the collective level, the successfully renewed embeddedness of the business group community into dominant market-oriented institutional structures improves the collective position of business groups within the institutional environment. This will increase the aggregate level of resource within the business group that can be utilized to support the diversification of the affiliated firms.

On the other hand, the IER requests deliberately designed and conducted resource allocation and organizational adjustments at the organizational level, which will of course affect the diversification–performance link of affiliated firms if the affiliated firms are involved in this. Unrelated diversification and related diversification tend to be influenced through different mechanisms: for unrelated diversification, the resultant changes in the financial economies will be more meaningful; for related diversification, the influence of intra-business-group resource allocation and organizational adjustments may account for much because of its organizational dependence (Rawley, 2010).

Furthermore, business groups in different emerging economies tend to differ in the extent to which they have successfully conducted IER and the presence in the economy. Therefore, one should not simply expect that there are consistent diversification effects for firms (or group-affiliated firms) in different emerging economies. In this sense, it is not strange that the empirical studies on firm diversification effects in emerging economies have produced mixed evidence.

### *5.2.4 Research background*

#### *5.2.4.1 China's MOIT*

I turn to the Chinese context where systematic existence of IER within business groups has been widely observed (Zhang, 2014 [Chapter 3]). Specifically, this study employs data on domestic listed firms from China's textile industry for the period 2001–2005 to provide enriched insights for the study of diversification and business groups in emerging economies.

China offers a suitable country specificity to conduct a holistic study. China is known for its successful implementation of an incremental institutional transition during the last three decades. Such a gradual transition characteristic conforms to the common presumption underneath institution-based studies of diversification and business in emerging economies. They argue that as a general trend, the institutional transition in the emerging economy should be shifted in a market direction (Peng, 2003; Peng et al., 2005).

#### *5.2.4.2 The incremental listing of Chinese business groups*

After almost two decades of continuous institutional transformation since the end of the 1970s, China has established a preliminary market-oriented enterprise system that makes business organizations compete more on the basis of market mechanisms (Aivazian et al., 2005). During the 1990s, Chinese business groups have implemented successful governance structure renewal with major focus on converting themselves into group companies. When entering into the 2000s, the changes in institutional environments impose increasing pressure on Chinese business groups for more-market-oriented changes. Compared with the newly established independent firms and those former state-owned enterprises that may have undergone governance

structure renewal already, business groups have to make more effort to upgrade their governance structures at least to the average level of the industry. Such a disadvantageous condition is, as argued in Meyer and Lu (2005), partly because of the relatively large scale and complex organizational contexts of Chinese business groups as loose hierarchical systems embedded with individual affiliates that vary in institutional tendencies and resource endowments.

Incremental listing is a critical governance structure renewal strategy for Chinese business groups in the 2000s, to accelerate an evolution towards the ultimate aim—being "a general form of diversified corporation" (Chang, 2006, p. 414). As the "core" to implement this IER movement, the listed affiliates are more likely to benefit from the IER effects than the unlisted affiliates of business groups. The incremental listing is a gradual process that often begins with the listing of a core affiliate (usually one that has been corporatized fully, thereby being institutionally advanced), followed by a sequences of "transfer-and-integrate" procedures across the indefinite boundary between the listed and unlisted parts of the business group during a considerably long period (CGCA, 2004; Naughton, 2006). By transferring and integrating its "most evolved" institutional forms and "best" resources into listed affiliates, the business group may expect to create a virtuous cycle: successful implementation of the transfer-and-integrate procedure leads to both continuous spillover of advanced institutions from listed affiliates to others and an increase in the business group's resource stock, which in turn stimulate new rounds of transfer-and-integrate. However, such a series of complicated resource allocation and organizational adjustments causes costs.

Given the aforementioned characteristics of China and Chinese business groups, selecting listed firms (both group-affiliated and independent) as the sample for

analysis is suitable. Although employing listed firms for analysis is a common approach in the literature of diversification and business group study (Guest and Sutherland, 2010), our focus on the listed affiliates of Chinese business groups will produce plentiful interpretations for exploring the moderating effects of group affiliation on diversification outcomes.

## 5.3 Methodologies

### *5.3.1 Sample and data*

The sample initially includes 94 textile firms listed on either the Shanghai or Shenzhen Stock Exchange during the period 2001–2005. After eliminating firms that went public or were delisted during the period or have missing values, the final sample is a balanced panel dataset containing 62 firms and 310 firm-years. There are 46 group-affiliated firms (74%) in the sample; this percentage is comparable with previous studies of Chinese business groups; for example, Ma et al. (2006) reported a percentage of 67%.

Regarding the industry background, the Chinese textile industry became the largest textile industry in the world in 1994 and is considered a highly unregulated industry in the Chinese economy (CEI, 2004). This industry setting, especially the market competition in the industry, is meaningful as our primary interest is the impact of group affiliation on firms' business strategy outcomes during the MOIT.

Accounting and financial data of listed firms are collected from the China Financial and Economic Research (CCFR) database and the RESSET database. Segment data (business description, sales, cost, etc.) are compiled from financial statements directly; I use the two-digit Chinese Standard Industry Classification (CSIC) to code all segments, and I compute diversification variables with segment

sales data. I use the yearbooks published annually by the National Bureau of Statistics of China (NBSC), *Large Corporations of China* (NBSC, 2001b–2006b), to obtain information on business groups such as registration name, address, and turnover. Group affiliation is then identified by matching a listed firm's block shareholders with the business group by the name and other essential data that are reported in the CCFR database (and financial statements) and NBSC yearbooks.

### *5.3.2 Diversification measures*

This study employs the entropy index of diversification (Palepu, 1985). Data availability is a critical issue. A common approach in the diversification literature to capture the relatedness between segments (and industry groups) is to consider all three-digit or four-digit industries in one two-digit industry as an industry group (for example, industries CSIC 171, 172 and 173 belong to the industry group CSIC 17). In China, this is a tall order as there is not a refined database for segment information at three- or four-digit SIC level (like COMPUSTAT). To calculate diversification measures, researchers have to manually collect the segment data and match each segment with an industry classification code (e.g., Lin and Su, 2008; Ma et al., 2006). In many cases, the segment information disclosed by the listed firms is so coarse that researchers can only afford to assign business segments with two-digit CSIC codes (as in this study). This increases the difficulty in describing industry groups.[28]

The current study settles this issue by focusing on the broad scope of the textile industry. The textile industry is defined as an industry group consisting of six two-digit CSIC industries: Textiles (CSIC 17), Apparel, footwear and caps (CSIC 18),

[28] Using one-digit CSIC industries as the industry group and two-digit CSIC industries as the industries of the industry group is possible, but means little for studies in the field of strategic management.

Leather, fur, feather and related products (CSIC 19), Chemical fibers (CSIC 28), Wholesaling (CSIC 63) and Chemical material and product manufacturing (CSIC 26).[29] According to this definition, the textile industry is the only multi-industry industry group that we can identify.

The degree of unrelated diversification of firm *i* in period *t*, $UDIV_{it}$ is exactly as described in Equation (3):

$$UDIV_{it} = \sum_{g=1}^{G_{it}} \left( \frac{S_{g,it}}{TS_{it}} \right) \ln \left( \frac{TS_{it}}{S_{g,it}} \right), \tag{5}$$

As the entropy equals zero for any single-industry industry groups, Equation (4) indicated in Subsection 5.2.2 can be rewritten as follows:

$$RDIV_{it} = \left( \frac{S_{it}^{tex}}{TS_{it}} \right) \sum_{k=1}^{K_{it}} \left( \frac{s_{k,it}^{tex}}{S_{it}^{tex}} \right) \ln \left( \frac{S_{it}^{tex}}{s_{k,it}^{tex}} \right) = \sum_{k=1}^{K_{it}} \left( \frac{s_{k,it}^{tex}}{TS_{it}} \right) \ln \left( \frac{S_{it}^{tex}}{s_{k,it}^{tex}} \right), \tag{6}$$

where *k* represents two-digit CSIC industries in the textile industry group in which the firm does business ($k = 1,\ldots,K$), $S^{tex}$ is the firm's total sales in the textile industry group, and $s_k^{tex}$ is the firm's sales in industry *k*.

This assumes that in average, firms in the sample were more likely to pursue related diversification inside the textile. Given the general trend of the sample firms being relatively specialized in the textile industry (as shown in descriptive statistics on unrelated diversification in Table 5.1), such a simplification is reasonable.

### *5.3.3 Dependent and control variables*

I use Tobin's Q and ROA as dependent variables following previous studies (e.g., Fukui and Ushijima, 2007; Khanna and Palepu, 2000).

[29] This broad-spectrum definition reflects considerations of relatedness in the diversification of textile firms (Colpan, 2008) and the corporate coherence literature (Lien and Klein, 2009; Teece et al., 1994). I also applied a narrow-spectrum definition with focus on textile manufacturing (CSIC17, 18, 19, and 28) (CEI, 2004) and conducted a robustness examination (see Table A5.2 in Appendices).

Tobin's Q is a widely used measure of firm value in the finance discipline. As in previous studies of business groups (e.g., Khanna and Palepu, 2000), a simplified version of Q can be calculated as:

Tobin's Q = (Market value of equity + Book value of total debt) / Book value of total assets.

It is well known that in the Chinese stock market, a significant proportion of the shares were non-publicly tradable shares before 2007 when China completed the "share structure resolution reform" to allow nontradable shares to be publicly tradable (Peng et al., 2011). As it is difficult to estimate the prices of these non-publicly tradable shares, I use the price of publicly tradable shares (Huang and Song, 2006).

ROA is employed to measure the short-term profitability of the firm:

ROA = (Net Income + Interest × (1 – Tax rate)) / Total assets.

Following Khanna and Palepu (2000), I take into consideration the tax-shield effects of debt structure and interest paid. As argued in Huang and Song (2006), Chinese companies are subject to different income tax rates based on the district where they operate, the period when they were established, and the composition of ownership. Accordingly, I calculate an average tax rate for each firm.

Several widely employed control variables are included. First, the leverage ratio (*LEV*) is computed as debts divided by total assets, to assess the extent to which listed firms may rely less on their internal capital markets when access to external financial resources is possible (Lins and Servaes, 2002). Second, the nature logarithm of total sales in RMB (*SIZE*) is used to control for the size effect (Lee et al., 2008). Finally, the sales growth rate (*GROWTH*) is controlled for (Fukui and Ushijima, 2007).

### *5.3.4 Regression models*

Regression models are specified in a hierarchical way. At first, to examine the effect of diversification on firm performance, I introduce the following regression model:

$$P_{it} = a_i + \lambda_t + \alpha_1 UDIV_{it} + \alpha_2 RDIV_{it} + \alpha_3 Control_{it} + u_{it}, \quad (7)$$

where $i$ indicates the listed firms ($i$ = 1,…,62), $t$ indicates time (2001–2005), $P_{it}$ is firm performance (*Tobin's Q* and *ROA*), $UDIV_{it}$ and $RDIV_{it}$ indicates unrelated diversification and related diversification, $Control_{it}$ indicates the control variables, and $u_{it}$ is the error term.

Furthermore, to examine the differences in the diversification effects across group-affiliated firms and independent firms, I propose the second regression model:

$$P_{it} = a_i + \lambda_t + \alpha_1 UDIV_{it} + \alpha_2 RDIV_{it} + \alpha_3 UDIV_{it} \times GP_{it} + \alpha_4 RDIV_{it} \times GP_{it} + \alpha_5 Control_{it} + u_{it}, \quad (8)$$

where $UDIV_{it} \times GP_{it}$ is the interaction term between $UDIV_{it}$ and $GP_{it}$ , $RDIV_{it} \times GP_{it}$ is the interaction term between $RDIV_{it}$ and $GP_{it}$ ($GP_{it}$ is a dummy variable that takes the value 1 for group-affiliated firms and 0 for independent firms). I employ fixed effect models as the estimation method; the dummy variable *GP* is time invariant, the effect of *GP* will be fully absorbed by the firm-specific effects in the fixed-effects models and is therefore unidentifiable.

### *5.3.5 Estimation techniques*

Utilizing the panel data structure of the sample, I use standard panel regression techniques as the estimation method and include dummies for years to account in all the regressions for unobservable firm-specific and time-specific effects. To avoid the possible reverse causality between diversification and firm performance, I lag all

diversification variables one period.

**Table 5.1** Descriptive statistics

| | | Full sample (N=310) | | Group-affilated firms (N=230) | | Independent firms (N=80) | |
|---|---|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD | Mean | SD |
| Tobin's Q | (Market value of equity + total debt) / Total assets | 1.888 | 1.015 | 1.769 | 0.850 | 2.230 | 1.333 |
| ROA | Return on assets | 0.014 | 0.076 | 0.017 | 0.077 | 0.006 | 0.074 |
| UDIV | Unrelated diversification | 0.238 | 0.290 | 0.242 | 0.294 | 0.228 | 0.278 |
| RDIV | Related diversification | 0.327 | 0.327 | 0.356 | 0.343 | 0.243 | 0.259 |
| LEV | Debt to total assets | 0.517 | 0.190 | 0.512 | 0.196 | 0.532 | 0.169 |
| SIZE | Natural log of total sales (in RMB) | 20.523 | 0.973 | 20.722 | 0.882 | 19.951 | 1.000 |
| GROWTH | Growth rate in sales | 0.145 | 0.313 | 0.168 | 0.328 | 0.079 | 0.256 |

## 5.4 Empirical analysis

Table 5.1 presents the means and standard deviations of all continuous variables for both the full sample and for group-affiliated firms and independent firms separately. First, consider the statistics for the full sample. The mean of Tobin's Q is 1.888, which is higher than those reported in studies of listed firms in developed economies (e.g., Fukui and Ushijima, 2007) but acceptable when taking into consideration the characteristics of the Chinese stock market as a representative emerging market (Huang and Song, 2006). The average levels of unrelated and related diversification (entropy measures) are relatively low, 0.238 and 0.327 respectively; generally, the textile firms in the sample are still in the early stages of business expansion. I then compare the means between group-affiliated firms and independent firms to explore differences in firm performances and strategy patterns. Compared with independent firms, group-affiliated firms perform worse on the stock market (Tobin's Q), whereas

they achieve better profitability (ROA). Furthermore, they are more diversified (both UDIV and RDIV), with less debt in their capital structures (LEV), are larger in size (SIZE) and are growing faster (GROWTH).

**Table 5.2** Pearson correlations

| Variables | 1. | 2. | 3. | 4. | 5. | 6. |
|---|---|---|---|---|---|---|
| 1. Tobin's Q | 1 | | | | | |
| 2. ROA | –0.036 | 1 | | | | |
| 3. UDIV | –0.083 | –0.067 | 1 | | | |
| 4. RDIV | –0.117 | 0.063 | –0.086 | 1 | | |
| 5. LEV | –0.188 | –0.321 | 0.246 | 0.110 | 1 | |
| 6. SIZE | –0.497 | 0.222 | 0.012 | 0.387 | 0.005 | 1 |
| 7. GROWTH | –0.033 | 0.275 | –0.023 | 0.130 | 0.026 | 0.239 |

**Note:** Full sample (N=310).

Table 5.2 reports the correlation coefficients for the full sample. One interesting point is that the correlation is −0.036 between Tobin's Q and ROA. Such a negative correlation has also been reported in recent studies of Chinese listed firms (e.g., Yuan et al., 2008). This may imply the existence of an overall inconsistency between the long-period and short-period goals/strategies for the listed firms in the sample.

The regression results are presented in Table 5.3. Models 1 and 2 estimate the effects of unrelated and related diversification on firm value (Tobin's Q) and profitability (ROA). In models 3 and 4, the interaction terms between group affiliation dummy variable GP and the diversification variables are added to compare the diversification effects between group-affiliated firms and their independent counterparts.

**Table 5.3** Results of regression analyses using entropy diversification measures

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| | Tobin's Q | ROA | Tobin's Q | ROA |
| UDIV | 0.576 ** | –0.047 * | 0.156 | –0.038 |
| | (0.229) | (0.026) | (0.335) | (0.039) |
| RDIV | –0.023 | –0.010 | 1.153 ** | 0.097 * |
| | (0.226) | (0.026) | (0.472) | (0.055) |
| UDIV × GP | | | 0.741 * | –0.009 |
| | | | (0.405) | (0.047) |
| RDIV × GP | | | –1.505 *** | –0.135 ** |
| | | | (0.526) | (0.061) |
| LEV | –0.267 | –0.127 *** | –0.214 | –0.126 *** |
| | (0.339) | (0.039) | (0.331) | (0.039) |
| SIZE | –0.094 | 0.025 | –0.068 | 0.029 * |
| | (0.136) | (0.016) | (0.133) | (0.016) |
| GROWTH | 0.023 | 0.024 * | 0.021 | 0.023 * |
| | (0.109) | (0.012) | (0.106) | (0.012) |
| R2 (within) | 0.638 | 0.167 | 0.657 | 0.184 |

**Notes:** Coefficients from fixed-effects regressions; year dummies included in all specifications; standard errors in parentheses: *$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Results of control variables are comparable with previous studies of listed firms in developed economies and some studies on Chinese firms. In Models 2 and 4, the coefficient for the leverage ratio variable LEV is significantly negative and consistent with previous studies (e.g., Ma et al., 2006); in Models 1 and 3, although insignificant, the coefficient for LEV is still negative as reported in Fukui and Ushijima (2007). All these results imply that the high leverage ratio tends to constrain the overall outcome of the strategies that the firm can perform. The effect of sales growth (GROWTH) is positive but not significant in Models 1 and 3; the coefficients for the variable SIZE are insignificant except in Model 4.

### *5.4.1 Effects of diversification strategies*

#### *5.4.1.1 Unrelated diversification*

Previous studies propose that unrelated diversification will be related positively to firm performance in emerging economies. As shown in Model 1, the coefficient of unrelated diversification is positive and significant, suggesting that unrelated diversification has a positive effect on long-term firm performance (Tobin's Q). Meanwhile, the effect of unrelated diversification on profitability (ROA) is significantly negative (Model 2).

It might be noted that although we have expected a positive effect of unrelated diversification on firm performance, the assumed positive causal relationship may change to be insignificant or even negative when we use short-term performance measures (such as profitability) because of the long-period tendency of unrelated diversification in value creation (Kim et al., 2004). The result in Model 2 may reveal this tendency consistent with Lu and Yao (2006) who also found negative impact of unrelated diversification on ROA of Chinese listed firms.

Taking all these results together, in the sample period of the MOIT in China, the dominant characteristic of institutional environments is still the existence of institutional imperfection, which legitimates diversified firms' internal capital markets to facilitate their performance.

#### *5.4.1.2 Related diversification*

The coefficients of related diversification are negative and insignificant in Models 1 and 2. It is hard to interpret this result from the view of mainstream research. First, related diversification theory suggests that there should be a positive correlation between related diversification and firm performance if the synergistic economics are

realizable (Hill and Hoskisson, 1987). Furthermore, it is believable that firms can improve performance easier by related diversification than by unrelated diversification (Bettis, 1981; Palepu, 1985); however, firms in the sample have conducted unrelated diversification relatively successfully (as revealed by the positive effect of UDIV). From the viewpoint of empirical investigation, we should first look into whether this result is caused by differences between group-affiliated and independent firms.

### *5.4.2 Moderating impacts of group affiliation on diversification effect*

Models 3 and 4 present the results of regressions estimating the impacts of group affiliation on the relationship between diversification and performance. Institutional embeddedness renewal (IER) provides an insightful lens to interpret the empirical result as it reveal where the group resource arises from.

#### *5.4.2.1 Unrelated diversification*

The coefficient of the interaction term between unrelated diversification and group affiliation in Model 3 is positive but marginally significant at the 10% significance level, suggesting that group-affiliated firms in the sample still possess an advantage in pursuing unrelated diversification over their independent counterparts. This finding is particularly consistent with two recent empirical studies on firm diversification effects in India (Ramaswamy et al., 2011; Singh et al., 2007). Both of them find that group affiliation positively moderate the relationship between unrelated diversification and performance of firms in such a major emerging economy.

In emerging economies, the value of group affiliation is essentially conditioned on the extent to which business groups have effectively conducted the IER. Successful IER grants business groups a collective prominent position within the institutional

environment that ensures the resource can be utilized by their affiliated firms, i.e., to perform diversification strategies better than their counterparts (independent firms). The situation in China during the 2000s is like this. Our studies in previous chapters, together with recent arguments and empirical evidence (White et al., 2008; Yiu et al., 2005), indicate a successful systematic IER of Chinese business groups during the period. The higher performance of unrelated diversification by group-affiliated listed firms is explainable if we consider it as the implication of IER for listed affiliates of business groups. Therefore, an optimistic explanation may be that business groups in the period have successfully conducted IER, and the resultant effects make their listed affiliates' internal markets superior.

*5.4.2.2 Related diversification*

The coefficients of the interaction term between related diversification and group affiliation are all negative and significant in the two models (both Tobin's Q and ROA). Group affiliation affects the relationship between related diversification and firm performance significantly in such a way that the related diversification performance of group-affiliated firms worsens. Furthermore, these results show that the estimated effect of RDIV on performance (Tobin's Q and ROA) is 1.153 and 0.097 for independent firms (GP = 0), and –0.352 and –0.038 for group-affiliated firms (GP = 1). The positive effects of related diversification by independent firms coincide well with what the conventionally related diversification theory has predicted.

Recent development in related diversification theory argues that to realize such an efficiency-based value creation tendency, the firm needs to meet organizational requirements such as high coordination and interrelation to share resources and

transfer skills across divisions (Kim et al., 2004; Rawley, 2010). In other words, related diversification is a significantly organization-dependent issue. For Chinese group-affiliated listed firms in the 2000s, their related diversification tends to be interwoven deeply with resource allocation and organizational adjustments associated with the IER—in the context of incremental listing—the transfer-and-integrate procedures.

After moving their high-quality assets (or organizationally speaking, units) into listed affiliates, the business group is faced with the problem of integrating the transferred units with those that are already there. Impacts of such transfer–integrate procedures can be addressed technologically and organizationally. If we regard these transferred units as modular units with standard technological interfaces (e.g., input–output between vertical integrated units), such transfer–integrate procedures can be understood as cycles to rearrange those broken technology interlinks. Organizationally, such transfer–integrate procedures need to repair the disturbed organizational interrelations. Such technological interlinks and organizational interrelations are relevant to the sustainable advantages of business group and consist of the foundation of related diversification benefit exertion; however, these are difficult to recover in a short period.

Consequently, given the occupation of transferred units in the listed affiliates' related business scope,[30] there tends to be durable damage to the value-creation tendency of relatedness caused by the complexity of repairing these technological interlinks and organizational interrelations.[31] In contrast, on average, to independent

[30] This can be evidenced by an associated phenomenon, that is, the frequent and complicated related party transactions (RPTs) between the Chinese listed affiliate and their connected parties during the past decades (Fisman and Wang, 2010; Peng et al., 2011).

[31] Unrelated diversification would bear relatively little cost from such a transfer-and-integrate mechanism. Unrelated diversification involves more in intra-business-group allocation of

firms that pursue a related diversification strategy, the constraints from such a transfer–integrate mechanism will be weak (i.e., when connected with former state-owned enterprises) or even nonexistent (i.e., when established as independent firms). Drawing these arguments together, the performance effect that group-affiliated listed firms can achieve from related diversification is systematically inferior to what their independent counterparts can achieve as shown in Models 3 and 4.

### *5.4.3 Robustness examinations*

Finally, I conducted robustness checks, first, by employing different diversification measures. Studies on corporate diversification have also used Herfindahl-based diversification measures (e.g., Khanna and Palepu, 2000; Lang and Stulz, 1994). These measures are rooted in the Herfindahl index that has been commonly used by industrial organization economists to measure industry concentration. Following Lu and Beamish (2004), the Herfindahl-based measures of unrelated diversification is:

$$UDIV_{it} = 1 - \sum_{g=1}^{G_{it}} \left( \frac{S_{g,it}}{TS_{it}} \right)^2 , \qquad (9)$$

The Herfindahl-based measure of related diversification is computed as:

$$RDIV_{it} = 1 - \sum_{k=1}^{K_{it}} \left( \frac{s_{k,it}^{tex}}{S_{it}^{tex}} \right)^2 , \qquad (10)$$

For the sample in this study, the Herfindahl-based diversification measures are found to be highly correlated with the entropy diversification measures. I ran all regressions in Table 5.3 using Herfindahl-based measures and reported the results in Table A5.1 in Appendices. The results regarding all explanatory variables are highly consistent with those reported in Table 5.3.

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capital, equipment or other resources which is rarely technological connected and less interwoven with organizational interrelations.

I further checked the robustness of the findings by applying a narrow-spectrum definition of textile industry (as a manufacturing sector comprising of CSIC 17, 18, 19, and 28) and ran the regressions as in Table 5.3. To a large extent, the results regarding all explanatory variables are qualitatively consistent with those reported in Table 5.3 (see Table A5.2 in Appendices). Specifically, the coefficient of UDIV in Model 1 is significantly negative. In models 3 and 4, the signs of coefficients of UDIV × GP remain as those in Table 5.3 although statistically insignificant, which is consistent with the results reported in Table 5.3. RDIV × GP is consistently negative but the statistical significance weakened. The resource-based view of corporate diversification suggests that a central issue of defining related business portfolio (equally, industry group) is whether these business (industries) share certain resource or capabilities. The narrow-spectrum definition of textile industry excludes two two-digit CSIC industries—Wholesaling (CSIC 63) and Chemical material and product manufacturing (CSIC 26). In the real world of business, textile firms tend to entry into these industries to utilize their knowledge and capabilities about the whole value chain about the textile industry (CEI, 2004; Colpan, 2008). The narrow-spectrum definition might underestimate the extent to which the textile firm undertakes related diversification.[32]

## 5.5 Concluding remarks

In this chapter, I focus on diversification effects of firms and the moderating impacts of group affiliation on these effects in emerging economies. I set the institutional background to be the 2000s of China, and employed the 2001–2005 data on listed

[32] Table A5.3 reports the distribution of firm business segments across the six two-digit CSIC textile industries. During the sample period, 43.55% and 9.68% of the 62 firms had operated businesses in CSIC 63 and CSIC 26.

firms from the Chinese textile industry to conduct empirical analysis. The unique relationship between Chinese business groups and their listed affiliates and textile as a sound industry background are utilized to explore the dominant influence of institutional environments and the moderating role of business groups in determining the outcomes from their affiliated firms' diversification.

The empirical results suggest that in the context of the 2000s in China: (1) the institutional environments are still characterized by institutional voids which legitimize the relative value of diversified listed firms' internal capital markets (UDIV in Model 1); (2) it may still be possible for the affiliated listed firm to achieve performance advantages from unrelated diversification, therefore implying a potential contribution of IER of business groups to the comparative strength of business group affiliation (UDIV × GP in Model 3); (3) however, the simultaneous existence of poor outcomes from related diversification implies that the IER of business groups may lead to disruptions to the internal technological and organizational interrelations, which are known as the fundamental foundations for the realization of related diversification's value-creation tendency (RDIV × GP in Models 3 and 4).

To conclude, the main objectives of this study have been accomplished. That is, using data on listed firms from the textile industry in China, I ascertained the validity of the various arguments in diversification theories and previous studies of diversification (both of independent and of group-affiliated firms), and illustrated how the IER of business groups is meaningful for explaining the complex diversification–firm performance relationship in such a novel institutional setting, governance structure renewal of Chinese business groups (specifically, incremental listing) in the 2000s. My findings highlight the importance of integrating an IER view with mainstream strategy issues for the study of diversification and business groups.

# Chapter 6

# Conclusions

Business groups are central organizations in many emerging economies undergoing market-oriented institutional transitions (MOITs). In the literature of business group study, there has been increasing concern about the roles of business groups in MOITs, as "paragons or parasites" (Khanna and Yafeh, 2007, p. 331). The role of business groups in the MOIT is essentially shaped by the interplay between business groups and the institutional environment. To provide insightful answer to the question asked by Khanna and Yafeh (2007), a comprehensive study on the fundamental mechanisms underlining business groups' interactions with the institutional environment during the MOIT and the resultant performance implications is required.

It seems that the mainstream literature has still not prepared to respond to this request in an effective way. To a large extent, previous studies have only just begun to include business groups' interactions with the institutional environment in their explanations of distinct business group effects such as the impact of affiliation with a business group on firm performance (for a useful survey, see Carney et al., 2011). The dissertation has been designed to fill these gaps. The dissertation proposed a set of research questions that constitute the aforementioned research theme. In Chapter 2, I developed a conceptual framework of institutional embeddedness renewal that

theorizes business groups' interactions with the institutional environment and the resultant performance implications in the context of MOIT. In Chapters 3–5, China in the 2000s and the textile industry were utilized as the specific institutional and industry background to carry out a set of empirical analyses to answer the proposed research questions.

## 6.1 Implications for theory and practice

### *6.1.1 Implications for theory*

#### *6.1.1.1 The IER framework*

Drawing on insights from institutional strategy theory (Lawrence, 1999) and other disciplines such as institution-based view of business strategy (Peng, 2003), organizational learning (Crossan et al., 1999) and organizational ecology (Volberda and Lewin, 2003), this dissertation extends the conventional institutional embeddedness framework (Granovetter, 1995) into the case of business groups in complicated MOIT contexts.

I developed the conception of institutional embeddedness renewal to depict the strategic aspects of business groups' interactions with the institutional environment. On the basis of this, I introduced a dual process model by which to study the performance effects of IER at both the collective level and the organizational level, and the possibly cost associated with the IER process. These efforts provide necessary theoretical foundation for investigating the performance implications of implementing IER during the MOIT (as illustrated by the empirical analyses in Chapters 3 and 5). On the basis of this, focusing on the difference in the capabilities/tendencies to strategically manage their interplay with the institutional environment across business

groups, I identified two important organizational features (political embeddedness and market-oriented autonomy) to characterize this. I argued that business groups with different degree of these features will have different likelihoods of failure and such survival mechanisms tend to be institutionally contingent (as empirically demonstrated in Chapter 4).

The aforementioned theoretical development has important implications for research on business groups in emerging economies undergoing transition to a market economy. With its focus on the fundamental interaction between business groups and the institutional environment, the research framework proposed in this dissertation can be applied to other institutional settings where MOIT is occurring and plays a similar role. Because the development of institutions varies between these situations and the content differs, these studies can add further insights to the research on institutional embeddedness phenomena of business groups.

#### *6.1.1.2 Empirical work*

The empirical investigation in Chapters 3–5 further adds to these implications for research on business groups. Focusing on institutional transition in China, specifically, the enterprise reform and market liberalization during the 2000s and using the textile industry as the industry background, the explanatory power of the proposed research framework were verified by studying business groups in such a typical MOIT.

In Chapter 3, I applied the proposed dual process model to analyze the impact of IER on the performance of business groups. I further introduced an analytical framework in which the process of IER is captured by the embeddedness of the business group community and the business group in both new (more-market-oriented) and old (less-market-oriented) institutional structures; the collective-level institutional

embeddedness is measured by the penetration ratios of new/old institutions within the community and the organizational-level institutional embeddedness is measured by business group's adoption of new/old institutions. I focused on the governance structure renewal of Chinese business groups during the 2000s and utilized governance structures as the institutions to create institutional embeddedness measures. I proposed a set of hypotheses that predict possible relationships between the institutional embeddedness and performance of business groups. Employing data on 38 business groups with listed affiliates from the Chinese textile industry during the period 2000–2008, I econometrically tested the proposed hypotheses. I found that, at both the collective level and the organizational level, the embeddedness in new institutional structures brings positive effects. The result suggests that business groups can enhance their performance by moving into new institutional structures. Besides, the embeddedness in old institutional structures also bring positive effects. This result implies that during the MOIT, the interconnections with those old, but still dominant institutions (such as traditional SOE governance structures in the context of this study) are still necessary for supporting the IER and competition of business groups. These findings enrich our understanding on strategic issues concerning how business groups manage their interactions with the institutional environment towards a market focus.

Chapter 4 examined failure likelihoods of Chinese textile business groups during the 2000s and institutional contingency of the survival mechanisms. In contrast with the analysis on IER process in Chapter 3, chapter 4 places more focus on organizational features that characterize business groups' capabilities/tendencies to interact with the institutional environment during the MOIT. On the basis of a review of the development of Chinese business groups in the past decades, I provided a working taxonomy to categorize them by initial ownership as state-owned business

groups and collectively-owned business groups, and by political rank as national and provincial business groups and sub-provincial business groups. Among them, state-owned business groups and national and provincial business groups are treated as highly politically embedded business groups. To capture the impacts of the institutional environment, I utilized the subnational (provincial) characteristics of China' MOIT, specifically, business-group-supportive policies and marketization of Chinese provinces. I defined organizational failure as the event in which the business group lost its control over its largest listed affiliate. Using data on 48 business groups with listed affiliates during 2000–2008, I conducted Cox regression analyses. It is found that highly politically embedded business groups have higher failure likelihoods than their counterparts; such a disadvantage, however, become weakened in regions where supportive policies are implemented comprehensively and in regions characterized by high degree of marketization. This chapter provides a useful approach to investigating the population dynamics within business groups during the MOIT by focusing on important organizational features of business groups and characteristics of the institutional environment.

In Chapter 5, I examined the effects of diversification on the performance of firms (both group affiliated firms and independent firms) and the impacts of group affiliation on the diversification effects using data on 62 listed firms in the Chinese textile industry during the period 2001–2005. One purpose of the chapter was to verify the findings of previous studies on diversification and business groups in emerging economies. Furthermore, it is known that Chinese business groups in the period were experiencing renewal of their governance structures, such as the incremental listing that involved their listed affiliates deeply. Correspondingly, by using this novel empirical setting, the other purpose of this chapter was to enhancing

the interpretation of the empirical findings by incorporating IER considerations. Employing two measures of firm performance (Tobin's q and ROA) and entropy measures of diversification (both unrelated diversification and related diversification), I conducted econometric analyses. The results provide supportive evidence on a positive effect of unrelated diversification, which is consistent with mainstream studies on firm diversification in emerging economies. Regarding the impact of group affiliation, it is found that group affiliated firms perform unrelated diversification better and perform related diversification worse compared with independent firms. The positive impact of group affiliation on unrelated diversification effect is consistent with the findings of previous studies. But for the negative impact of group affiliation on related diversification effect, previous studies have not provided sufficient insights. I suggest that from the IER perspective, a possible explanation is that Chinese business groups' incremental listing arouses cost that undermines the effect of related diversification of their listed affiliates. This chapter therefore provides further insights on performance implications of IER for business groups during the MOIT.

Conclusively, these empirical analyses further highlighted the contribution of the dissertation by demonstrating fundamental mechanisms underlining business groups' interactions with the institutional environment during the MOIT, which are critical to address distinct roles of business groups in given institutional settings. On the other hand, these empirical analyses also extend the work of studies on Chinese business groups that admit the possibility that Chinese business groups coevolve with the MOIT (e.g., White et al., 2008; Yiu et al., 2005), but devote relatively little efforts to empirically examining the rationales of their arguments. Besides, the studies on business groups, corporate governance and listed firms in China, are relatively

plentiful and still growing. This did help us to contrast our findings with previous studies using similar definition of variables (i.e., regarding the tradable share ratio of listed firms, Jiang et al., 2008; regarding ownership concentration, Lu and Yao, 2006), examining similar mechanisms (i.e., regarding performance of high-political-rank business groups, Guest and Sutherland, 2010), or providing historical overviews (i.e., for incremental listing in China, Naughton, 2006). These efforts assure the generality of our findings as the sample used was from a single-industry setting.

### *6.1.2 Implications for practice*

Apart from the implications for academic research, this dissertation has clear business and policy implications. In the context of MOIT, business groups have to strategically renew their embeddedness in the institutional environment as the institutional environment keeps evolving towards a market focus. Managers in business groups[33] can utilize the insights generated from this dissertation to facilitate their decision-making on institutional-embeddedness-renewing strategies. Empirical findings in Chapter 3 support an optimistic view that business groups can renew their institutional embeddedness during the MOIT. However, it does not mean that IER effects can be achieved automatically. Managers should give full consideration to strategic complexities of IER as revealed in this dissertation. For example, as illustrated by the analysis in Chapter 3, the embeddedness in old dominant institutional structures might need to be maintained for a certain long period. Managers need to identify those dominant institutions on which their business group relies. The process of IER is associated with cost caused by organizational

[33] The implementation of IER will involve managers at all levels in the business group. However, it is true that the decision of IER is mostly the responsibility of top managers (in the context of this study, top managers in the parent company and the listed affiliated firms).

adjustment/resource allocation, which might undermines outcomes of business group's business strategies as revealed in Chapter 5. This is another issue that mangers need to consider when deciding the particular IER strategies.

Particularly, the findings of Chapter 4 have important public policy implications. For policy makers in China and many other emerging economies, a challenging issue is how to utilize business groups as active agents to promote market-oriented institutional changes. It is true that during early periods of the institutional transition, the governments have tended to utilize those highly politically embedded business groups that have formed a close relationship with the state and deep embeddedness in the political regulatory framework as tools for state-led industrialization strategies (Carney, 2008). In the context of China, in the early time of the institutional transition, almost all business groups are either state owned or collectively owned (White et al., 2008). A long-term goal of the Chinese government during the past decades is to reduce its direct control and intervention over business groups (i.e., by reducing the state ownership), and increase the market-oriented capabilities/tendencies of business groups. Ecologically speaking, the government expects that business groups with less government connections would have higher survival likelihoods. The result of the analyses in Chapter 4 (business groups with more government connections confront higher failure risk) might implies the accomplishment of the ultimate goal of Chinese government. This is a good illustration of guiding the development of business groups to coevolve with the MOIT for policy makers from emerging economies.

Besides, the results of analyses in Chapter 4 also show that although the general trend within the sample business groups is that lowly politically embedded business groups prosper better, such an advantage is weakened when the marketization degree of the institutional environment becomes higher. One possible reason is because lowly

politically embedded business groups have less embeddedness in the old dominant institutional structures (i.e., fewer connections with the government). This disadvantageous situation might hinder the further institutional embeddedness renewal and the competitiveness of these business groups. To increase the resource that lowly politically embedded business groups can derive from the dominant institutional structures, one efficient method that policy makers can consider is to use the policy lever. Policy makers can adjust the direction of resource flow in extant supportive policies, or, introduce new policies designed to benefit lowly politically embedded business groups more explicitly.[34]

## 6.2 Limitations and future research

In Chapter 3, we have been reminded of the importance of a sophisticated analytical design in carving out the IER of business groups from the complex background of institutional transition in emerging economies. In the context of MOIT, the IER performance of business groups tends to be conditioned on a variety of contextual issues such as institutional forms, characteristics of the institutional transition, and the industry background. Naturally, the derivation of our empirical results from the empirical setting of this thesis gives rise to concerns about the generalizability of my findings to business groups from other empirical settings.

*Institutional forms*. My analyses have focused on governance structure of Chinese business groups. The selection of corporate governance institutions as the particular institutional forms is suitable for the theme of this research. However, further research

[34] In Chapter 4, it is found that business-group-supportive policies bring more advantage for highly politically embedded business groups than for lowly politically embedded business groups.

can examine the generalizability of my findings by focusing on different institutional forms, such as laws and regulations. To verify the effect from the diffusion or the adoption of these institutions, business group researchers might need to focus on different institutional fields. For the study of Chinese business groups, one possible candidate is the Five-Year Economic Plans in China that can be either at the national level or be industry specific (National Development and Reform Commission [NDRC], 2006). Given the market-oriented consistency between institutional fields during the MOIT, we optimistically believe that institutional embeddedness renewal mechanisms as revealed in this dissertation will also dominate business groups involved in other major fields such as "Five-Year Economic Plans".

*Characteristics of the institutional transition*. China has been regarded as a model of successful institutional transition driven by domestic agents. Given the incremental nature of the MOIT in China, it is understandable that my empirical results suggest a typically gradual IER approach for business groups. I believe that the general market-oriented trend within business groups will be robust to specific characteristics of the MOIT. However, it is worthwhile for future studies to investigate whether the strategic pattern of IER will differ when given a different MOIT setting. Particularly, I suggest that this should include situations where business groups' institutional embeddedness renewal actions are significantly affected by exogenous, punctuated environmental shocks, such as Korea in the 1990s.[35]

[35] Kim et al. (2010) delineate the process by which Korean business groups (chaebol) rebuilt their reform-promoting identity after the 1997 Asian financial crisis. Kim and his colleagues argue that the market-oriented isomorphic pressure within the population of Korean business groups tends to be disturbed by the institutional frictions caused by the financial crisis.

*Industry background*. For broad institution-based studies of business groups, a challenging, perhaps critical, issue is how to represent institutional mechanisms and simultaneously address the industrial context properly. In this dissertation, I have limited the examination of IER effects to a single-industry setting, the textile industry, known as a major conventional and competitive industry in China. The main theme of this dissertation is about fundamental institutional strategic mechanisms; institutional topics highlighted in this dissertation (governance structures, enterprise reform, business-group-supportive policies, etc) are rarely industry-specific. Therefore, I believe that my findings will not be sensitive to industry specifications. However, it is also worthwhile if future research can consider other industries such as new emerging high-technology industries (e.g., E-commerce, Biology, and Eco-industry) and protected industries (e.g., Telecommunications and Petroleum), or use large multi-industry samples.

Another limitation of my empirical analyses is the measures of business group performance. Profitability of the core listed affiliate (Chapter 3) and losing control over the core listed affiliate (Chapter 4) have been used as proxies for business group performance (economic performance and organizational failure, respectively). It is worthwhile to use more direct, business-group-level measures (e.g., profitability and market exit of business groups) in future research although it will go back to the issue of data availability ultimately. Finally, this dissertation has majorly utilized subnational contexts in large emerging economies (subnational region as specific institutional field for business groups and other agents), to depict the collective-level IER process (Chapter 3) and institutional dependence of fundamental organizational features of business groups (Chapter 4). Other typical interactive contexts (e.g.,

professional organizations of business groups) could be utilized in future studies to enrich our understanding of the interaction between business groups and the institutional environment in emerging economies.

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# Appendices

## Appendix to Chapter 1

### Debate on the temporal decrease of business group advantages

This is a phenomenon that has been reported in many emerging economies undergoing market-oriented institutional transition(e.g., Carney et al., 2009b; Kedia et al., 2006; Kim et al., 2004; Koo and Maeng, 2005; Lee et al., 2008; Zattoni et al., 2009).

The reasoning of IBVBS takes an environmentally-deterministic position. First, business groups inherently lack institutional entrepreneurship. This is mainly because they are embedded in the old, less-market-enhancing institutions, and the resources derived from institutional relations are vitally important in emerging economies where the external resource market is underdeveloped. Therefore, it is difficult for business groups to become motivated and enabled to escape from the cage of "stuck to the old institutions." However, if they do not escape, the resources derived from institutional embeddedness will decrease temporally (Kedia et al., 2006), but the accompanied costs exposed by these obsolete institutions (White et al., 2008; Yiu et al., 2005) and organizational inertia caused by lack of institutional entrepreneurship (Kim et al., 2004) will persist. As a result, after a certain length of time, business groups, which are conservative organizations, will lose their legitimacy and advantages in the institutional structure and market.

This is, however, theoretically debatable. From an institutional strategy perspective (Lawrence, 1999), the "temporal decrease" of business group advantages may tell a very different story: in an institutionally contextualized environment of the emerging economy, what the institutional embeddedness brings to the organization can either be

impeding or supporting as the embeddedness in these formal and informal relations is strategically adjustable (Meyer and Lu, 2005; Roth and Kostova, 2003). Under such circumstances, the distinctive institutional strategies that business groups take will underpin the organizational foundation of both the value-creation potential of market-centered strategies and the long-run prospering of business groups (Carney, 2008; Carney and Gedajlovic, 2002; Kim et al., 2010), but, are almost inevitably accompanied by organizational costs that exert a negative influence on their performance in markets (Meyer and Lu, 2005). If this negative influence is more likely to aggravate in some periods of the institutional transition, a "temporal decreasing" trend may also be possible, but it does not necessarily point to the ineffectiveness or failure of market-oriented institutional strategies of business groups.

## Appendices to Chapter 3

**Table A3.1** The distribution of business groups across Chinese provinces, 2000–2008

| Province | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Beijing | 136 | 207 | 202 | 246 | 274 | 280 | 257 | 260 | 254 |
| Tianjin | 173 | 172 | 174 | 176 | 175 | 162 | 123 | 109 | 117 |
| Hebei | 59 | 62 | 66 | 61 | 75 | 69 | 61 | 53 | 49 |
| Shanxi (Jin) | 40 | 44 | 39 | 45 | 46 | 52 | 53 | 59 | 58 |
| Inner Mongolia | 30 | 28 | 24 | 23 | 24 | 22 | 39 | 40 | 37 |
| Liaoning | 67 | 68 | 70 | 66 | 65 | 73 | 87 | 94 | 96 |
| Jilin | 42 | 47 | 49 | 41 | 39 | 36 | 33 | 33 | 33 |
| Heilongjiang | 105 | 88 | 79 | 79 | 72 | 41 | 47 | 49 | 48 |
| Shanghai | 106 | 132 | 138 | 165 | 158 | 153 | 160 | 177 | 183 |
| Jiangsu | 148 | 179 | 181 | 178 | 182 | 202 | 213 | 225 | 228 |
| Zhejiang | 281 | 269 | 262 | 276 | 287 | 329 | 385 | 419 | 436 |
| Anhui | 69 | 70 | 70 | 64 | 76 | 75 | 88 | 77 | 83 |
| Fujian | 257 | 245 | 228 | 239 | 249 | 240 | 235 | 261 | 252 |
| Jiangxi | 50 | 37 | 48 | 48 | 48 | 48 | 41 | 41 | 42 |
| Shandong | 345 | 339 | 299 | 292 | 283 | 330 | 305 | 306 | 288 |
| Henan | 171 | 118 | 112 | 108 | 115 | 116 | 109 | 110 | 102 |
| Hubei | 44 | 45 | 44 | 41 | 43 | 57 | 59 | 60 | 66 |
| Hunan | 31 | 40 | 38 | 39 | 38 | 38 | 41 | 38 | 41 |
| Guangdong | 138 | 154 | 144 | 143 | 135 | 159 | 154 | 150 | 156 |
| Guangxi | 25 | 20 | 25 | 25 | 27 | 29 | 33 | 34 | 52 |
| Hainan | 12 | 9 | 10 | 10 | 10 | 8 | 9 | 9 | 7 |
| Chongqing | 44 | 49 | 48 | 50 | 48 | 46 | 45 | 41 | 40 |
| Sichuan | 88 | 83 | 75 | 67 | 80 | 78 | 74 | 85 | 90 |
| Guizhou | 12 | 13 | 14 | 12 | 13 | 15 | 15 | 15 | 13 |
| Yunan | 30 | 35 | 34 | 34 | 40 | 36 | 41 | 40 | 48 |
| Xizang | 5 | 4 | 5 | 6 | 6 | 6 | 6 | 6 | 5 |
| Shanxi (Qin) | 60 | 64 | 57 | 58 | 54 | 51 | 44 | 44 | 45 |
| Gansu | 21 | 23 | 27 | 31 | 32 | 29 | 28 | 29 | 26 |
| Qinghai | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 21 | 20 |
| Ningxia | 22 | 21 | 18 | 19 | 19 | 16 | 19 | 16 | 20 |
| Xinjiang | 20 | 21 | 23 | 26 | 27 | 25 | 28 | 25 | 36 |
| Total number | 2655 | 2710 | 2627 | 2692 | 2764 | 2845 | 2856 | 2926 | 2971 |

**Note:** Data derived from NBSC (2009b, pp. 131–132).

**Table A3.2** The percentage of business groups adopting limited liability company parent company enterprise form in Chinese provinces, 2000–2008 (%)

| Province | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Beijing | 4.4 | 3.9 | 3.5 | 11.8 | 16.1 | 21.4 | 18.3 | 19.2 | 18.5 |
| Tianjin | 54.3 | 51.2 | 56.9 | 56.3 | 56.0 | 56.8 | 43.1 | 37.6 | 41.9 |
| Hebei | 15.3 | 19.4 | 19.7 | 19.7 | 30.7 | 27.5 | 29.5 | 30.2 | 28.6 |
| Shanxi (Jin) | 27.5 | 38.6 | 38.5 | 44.4 | 45.7 | 48.1 | 50.9 | 42.4 | 44.8 |
| Inner Mongolia | 16.7 | 21.4 | 20.8 | 21.7 | 37.5 | 36.4 | 56.4 | 57.5 | 59.5 |
| Liaoning | 19.4 | 17.6 | 18.6 | 27.3 | 30.8 | 38.4 | 46.0 | 48.9 | 51.0 |
| Jilin | 11.9 | 17.0 | 26.5 | 22.0 | 25.6 | 33.3 | 30.3 | 30.3 | 30.3 |
| Heilongjiang | 25.7 | 30.7 | 29.1 | 31.6 | 33.3 | 29.3 | 34.0 | 34.7 | 35.4 |
| Shanghai | 33.0 | 24.2 | 33.3 | 36.4 | 40.5 | 43.8 | 44.4 | 46.3 | 47.5 |
| Jiangsu | 22.3 | 29.6 | 30.9 | 40.4 | 44.0 | 50.5 | 58.2 | 59.1 | 61.0 |
| Zhejiang | 45.2 | 50.6 | 52.7 | 58.7 | 57.8 | 60.2 | 63.4 | 65.4 | 65.8 |
| Anhui | 15.9 | 15.7 | 21.4 | 35.9 | 40.8 | 36.0 | 46.6 | 45.5 | 45.8 |
| Fujian | 39.7 | 35.5 | 39.9 | 44.8 | 49.0 | 51.7 | 49.4 | 52.5 | 54.4 |
| Jiangxi | 16.0 | 13.5 | 18.8 | 27.1 | 41.7 | 43.8 | 31.7 | 34.1 | 35.7 |
| Shandong | 29.3 | 28.9 | 30.4 | 38.7 | 40.6 | 47.3 | 52.1 | 53.6 | 53.5 |
| Henan | 21.6 | 25.4 | 34.8 | 43.5 | 40.9 | 42.2 | 50.5 | 51.8 | 48.0 |
| Hubei | 6.8 | 11.1 | 9.1 | 14.6 | 23.3 | 28.1 | 28.8 | 28.3 | 33.3 |
| Hunan | 9.7 | 17.5 | 15.8 | 15.4 | 15.8 | 21.1 | 14.6 | 18.4 | 19.5 |
| Guangdong | 10.9 | 11.7 | 11.1 | 14.0 | 17.8 | 22.6 | 24.0 | 22.7 | 24.4 |
| Guangxi | 20.0 | 15.0 | 28.0 | 28.0 | 25.9 | 34.5 | 30.3 | 32.4 | 30.8 |
| Hainan | 58.3 | 66.7 | 70.0 | 60.0 | 50.0 | 37.5 | 22.2 | 22.2 | 28.6 |
| Chongqing | 50.0 | 44.9 | 45.8 | 42.0 | 41.7 | 37.0 | 35.6 | 34.1 | 35.0 |
| Sichuan | 23.9 | 34.9 | 42.7 | 38.8 | 38.8 | 42.3 | 52.7 | 45.9 | 53.3 |
| Guizhou | 25.0 | 30.8 | 35.7 | 41.7 | 46.2 | 46.7 | 46.7 | 53.3 | 53.8 |
| Yunan | 10.0 | 17.1 | 29.4 | 29.4 | 30.0 | 30.6 | 31.7 | 32.5 | 43.8 |
| Xizang | 60.0 | 50.0 | 40.0 | 33.3 | 0.0 | 33.3 | 33.3 | 33.3 | 20.0 |
| Shanxi (Qin) | 30.0 | 23.4 | 24.6 | 29.3 | 33.3 | 35.3 | 31.8 | 29.5 | 28.9 |
| Gansu | 0.0 | 8.7 | 29.6 | 25.8 | 28.1 | 44.8 | 50.0 | 51.7 | 53.8 |
| Qinghai | 33.3 | 58.3 | 50.0 | 54.2 | 45.8 | 50.0 | 50.0 | 47.6 | 45.0 |
| Ningxia | 22.7 | 14.3 | 11.1 | 0.0 | 21.1 | 31.3 | 42.1 | 50.0 | 60.0 |
| Xinjiang | 25.0 | 38.1 | 30.4 | 34.6 | 33.3 | 40.0 | 50.0 | 56.0 | 58.3 |

**Note:** Data derived from NBSC (2001b–2009b).

**Table A3.3** The percentage of business groups adopting joint stock company parent company enterprise form in Chinese provinces, 2000–2008 (%)

| Province | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Beijing | 3.7 | 1.9 | 1.5 | 2.0 | 1.8 | 2.5 | 2.7 | 3.5 | 4.3 |
| Tianjin | 5.2 | 6.4 | 6.3 | 7.4 | 7.4 | 6.8 | 7.3 | 7.3 | 6.8 |
| Hebei | 5.1 | 3.2 | 4.5 | 6.6 | 9.3 | 11.6 | 11.5 | 13.2 | 16.3 |
| Shanxi (Jin) | 25.0 | 18.2 | 17.9 | 15.6 | 15.2 | 15.4 | 13.2 | 15.3 | 15.5 |
| Inner Mongolia | 20.0 | 25.0 | 12.5 | 13.0 | 16.7 | 22.7 | 17.9 | 17.5 | 16.2 |
| Liaoning | 7.5 | 7.4 | 8.6 | 12.1 | 12.3 | 12.3 | 6.9 | 6.4 | 6.3 |
| Jilin | 23.8 | 25.5 | 22.4 | 24.4 | 23.1 | 22.2 | 24.2 | 27.3 | 27.3 |
| Heilongjiang | 28.6 | 23.9 | 29.1 | 25.3 | 26.4 | 19.5 | 14.9 | 18.4 | 14.6 |
| Shanghai | 6.6 | 12.9 | 14.5 | 13.9 | 12.0 | 13.1 | 12.5 | 11.9 | 9.8 |
| Jiangsu | 21.6 | 17.3 | 16.0 | 13.5 | 12.1 | 10.9 | 8.5 | 9.8 | 12.7 |
| Zhejiang | 17.4 | 17.5 | 18.7 | 19.2 | 19.5 | 18.8 | 19.0 | 18.4 | 17.9 |
| Anhui | 20.3 | 15.7 | 11.4 | 9.4 | 11.8 | 14.7 | 11.4 | 10.4 | 13.3 |
| Fujian | 7.4 | 7.3 | 7.5 | 7.1 | 7.6 | 6.7 | 6.8 | 6.1 | 6.3 |
| Jiangxi | 10.0 | 8.1 | 12.5 | 18.8 | 10.4 | 12.5 | 14.6 | 7.3 | 4.8 |
| Shandong | 20.6 | 17.4 | 19.1 | 20.5 | 20.8 | 14.5 | 13.1 | 12.7 | 14.6 |
| Henan | 23.4 | 13.6 | 14.3 | 18.5 | 18.3 | 18.1 | 16.5 | 16.4 | 17.6 |
| Hubei | 29.5 | 24.4 | 20.5 | 22.0 | 30.2 | 28.1 | 28.8 | 30.0 | 27.3 |
| Hunan | 29.0 | 27.5 | 26.3 | 33.3 | 31.6 | 31.6 | 24.4 | 23.7 | 22.0 |
| Guangdong | 18.8 | 14.9 | 18.8 | 18.9 | 19.3 | 22.6 | 22.1 | 25.3 | 26.9 |
| Guangxi | 20.0 | 15.0 | 16.0 | 8.0 | 7.4 | 13.8 | 18.2 | 23.5 | 26.9 |
| Hainan | 16.7 | 0.0 | 0.0 | 20.0 | 20.0 | 12.5 | 44.4 | 44.4 | 57.1 |
| Chongqing | 11.4 | 12.2 | 12.5 | 10.0 | 8.3 | 10.9 | 11.1 | 7.3 | 10.0 |
| Sichuan | 28.4 | 19.3 | 18.7 | 17.9 | 18.8 | 17.9 | 14.9 | 15.3 | 10.0 |
| Guizhou | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 13.3 | 13.3 | 7.7 |
| Yunan | 20.0 | 20.0 | 17.6 | 20.6 | 22.5 | 22.2 | 24.4 | 25.0 | 22.9 |
| Xizang | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Shanxi (Qin) | 23.3 | 21.9 | 24.6 | 22.4 | 22.2 | 17.6 | 20.5 | 22.7 | 22.2 |
| Gansu | 23.8 | 21.7 | 18.5 | 16.1 | 15.6 | 10.3 | 14.3 | 13.8 | 15.4 |
| Qinghai | 16.7 | 0.0 | 8.3 | 16.7 | 12.5 | 25.0 | 25.0 | 28.6 | 20.0 |
| Ningxia | 31.8 | 23.8 | 22.2 | 26.3 | 21.1 | 18.8 | 5.3 | 6.3 | 5.0 |
| Xinjiang | 15.0 | 14.3 | 17.4 | 15.4 | 14.8 | 16.0 | 14.3 | 12.0 | 13.9 |

**Note:** Data derived from NBSC (2001b–2009b).

**Table A3.4** The percentage of business groups adopting traditional non-SOE parent company enterprise form in Chinese provinces, 2000–2008 (%)

| Province | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Beijing | 2.2 | 1.9 | 2.0 | 2.4 | 4.7 | 2.5 | 1.6 | 2.3 | 3.5 |
| Tianjin | 10.4 | 8.1 | 2.9 | 1.1 | 1.1 | 1.2 | 0.8 | 5.5 | 2.6 |
| Hebei | 5.1 | 4.8 | 4.5 | 6.6 | 5.3 | 4.3 | 3.3 | 3.8 | 2.0 |
| Shanxi (Jin) | 2.5 | 0.0 | 0.0 | 0.0 | 2.2 | 3.8 | 3.8 | 8.5 | 8.6 |
| Inner Mongolia | 0.0 | 3.6 | 4.2 | 4.3 | 4.2 | 0.0 | 2.6 | 2.5 | 2.7 |
| Liaoning | 4.5 | 2.9 | 1.4 | 0.0 | 0.0 | 1.4 | 1.1 | 1.1 | 1.0 |
| Jilin | 2.4 | 4.3 | 4.1 | 4.9 | 5.1 | 2.8 | 3.0 | 3.0 | 3.0 |
| Heilongjiang | 7.6 | 4.5 | 3.8 | 2.5 | 4.2 | 2.4 | 4.3 | 4.1 | 4.2 |
| Shanghai | 2.8 | 3.0 | 2.2 | 2.4 | 4.4 | 3.3 | 2.5 | 1.1 | 2.7 |
| Jiangsu | 15.5 | 10.6 | 10.5 | 9.0 | 9.3 | 9.4 | 9.4 | 8.9 | 5.7 |
| Zhejiang | 16.4 | 13.0 | 13.0 | 9.1 | 8.7 | 8.8 | 6.0 | 5.3 | 5.5 |
| Anhui | 2.9 | 2.9 | 2.9 | 3.1 | 6.6 | 4.0 | 1.1 | 1.3 | 2.4 |
| Fujian | 23.3 | 22.4 | 18.4 | 16.7 | 14.1 | 12.5 | 10.6 | 8.8 | 7.9 |
| Jiangxi | 2.0 | 8.1 | 4.2 | 4.2 | 6.3 | 8.3 | 2.4 | 2.4 | 2.4 |
| Shandong | 16.2 | 14.5 | 14.4 | 10.3 | 8.5 | 10.3 | 5.9 | 6.2 | 5.2 |
| Henan | 5.3 | 5.1 | 3.6 | 1.9 | 3.5 | 6.0 | 3.7 | 6.4 | 7.8 |
| Hubei | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hunan | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 |
| Guangdong | 5.8 | 3.2 | 2.8 | 3.5 | 2.2 | 3.8 | 2.6 | 2.7 | 3.2 |
| Guangxi | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hainan | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.5 | 22.2 | 11.1 | 14.3 |
| Chongqing | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sichuan | 1.1 | 1.2 | 0.0 | 0.0 | 6.3 | 7.7 | 0.0 | 1.2 | 1.1 |
| Guizhou | 8.3 | 15.4 | 14.3 | 8.3 | 7.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Yunan | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 |
| Xizang | 0.0 | 25.0 | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Shanxi (Qin) | 3.3 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gansu | 9.5 | 8.7 | 3.7 | 3.2 | 9.4 | 3.4 | 3.6 | 3.4 | 3.8 |
| Qinghai | 4.2 | 0.0 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 0.0 | 0.0 |
| Ningxia | 0.0 | 0.0 | 5.6 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Xinjiang | 10.0 | 0.0 | 8.7 | 3.8 | 11.1 | 4.0 | 3.6 | 4.0 | 2.8 |

**Note:** Data derived from NBSC (2001b–2009b).

**Table A3.5** The percentage of business groups adopting traditional SOE parent company enterprise form in Chinese provinces, 2000–2008 (%)

| Province | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Beijing | 36.0 | 67.6 | 67.3 | 59.8 | 55.1 | 48.9 | 50.6 | 47.7 | 47.6 |
| Tianjin | 4.6 | 4.7 | 3.4 | 4.0 | 3.4 | 2.5 | 4.9 | 13.8 | 15.4 |
| Hebei | 5.1 | 6.5 | 9.1 | 9.8 | 5.3 | 5.8 | 4.9 | 3.8 | 4.1 |
| Shanxi (Jin) | 12.5 | 11.4 | 10.3 | 4.4 | 4.3 | 5.8 | 3.8 | 3.4 | 5.2 |
| Inner Mongolia | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 2.6 | 2.5 | 2.7 |
| Liaoning | 16.4 | 8.8 | 10.0 | 12.1 | 9.2 | 5.5 | 6.9 | 6.4 | 6.3 |
| Jilin | 16.7 | 14.9 | 16.3 | 14.6 | 7.7 | 5.6 | 6.1 | 6.1 | 6.1 |
| Heilongjiang | 23.8 | 22.7 | 19.0 | 16.5 | 12.5 | 19.5 | 14.9 | 14.3 | 12.5 |
| Shanghai | 18.9 | 27.3 | 14.5 | 12.1 | 12.0 | 11.1 | 14.4 | 10.7 | 11.5 |
| Jiangsu | 15.5 | 14.5 | 14.4 | 9.0 | 7.1 | 5.9 | 1.4 | 2.7 | 1.3 |
| Zhejiang | 10.3 | 5.9 | 5.3 | 2.9 | 2.8 | 2.1 | 2.3 | 1.7 | 1.8 |
| Anhui | 8.7 | 4.3 | 7.1 | 6.3 | 0.0 | 2.7 | 3.4 | 0.0 | 0.0 |
| Fujian | 13.6 | 13.5 | 11.8 | 7.9 | 7.6 | 6.7 | 5.5 | 5.4 | 4.4 |
| Jiangxi | 56.0 | 54.1 | 45.8 | 29.2 | 29.2 | 20.8 | 24.4 | 31.7 | 33.3 |
| Shandong | 19.1 | 16.5 | 14.4 | 11.6 | 11.0 | 7.3 | 7.2 | 6.5 | 5.6 |
| Henan | 18.1 | 16.1 | 9.8 | 9.3 | 11.3 | 9.5 | 2.8 | 1.8 | 2.0 |
| Hubei | 9.1 | 11.1 | 9.1 | 17.1 | 16.3 | 15.8 | 15.3 | 15.0 | 16.7 |
| Hunan | 16.1 | 15.0 | 21.1 | 12.8 | 10.5 | 10.5 | 24.4 | 21.1 | 19.5 |
| Guangdong | 32.6 | 28.6 | 23.6 | 23.1 | 23.0 | 17.6 | 14.9 | 14.0 | 12.8 |
| Guangxi | 24.0 | 25.0 | 16.0 | 12.0 | 14.8 | 6.9 | 6.1 | 2.9 | 1.9 |
| Hainan | 16.7 | 22.2 | 20.0 | 20.0 | 20.0 | 25.0 | 11.1 | 11.1 | 0.0 |
| Chongqing | 9.1 | 6.1 | 6.3 | 6.0 | 8.3 | 4.3 | 2.2 | 2.4 | 5.0 |
| Sichuan | 10.2 | 10.8 | 4.0 | 4.5 | 6.3 | 7.7 | 9.5 | 10.6 | 10.0 |
| Guizhou | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 6.7 | 6.7 | 7.7 |
| Yunan | 23.3 | 22.9 | 11.8 | 17.6 | 15.0 | 11.1 | 4.9 | 2.5 | 2.1 |
| Xizang | 20.0 | 0.0 | 40.0 | 0.0 | 50.0 | 50.0 | 33.3 | 16.7 | 40.0 |
| Shanxi (Qin) | 20.0 | 14.1 | 15.8 | 17.2 | 18.5 | 15.7 | 13.6 | 11.4 | 13.3 |
| Gansu | 33.3 | 26.1 | 14.8 | 16.1 | 6.3 | 3.4 | 0.0 | 0.0 | 0.0 |
| Qinghai | 12.5 | 8.3 | 8.3 | 8.3 | 20.8 | 8.3 | 8.3 | 9.5 | 15.0 |
| Ningxia | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Xinjiang | 0.0 | 9.5 | 0.0 | 7.7 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 |

**Note:** Data derived from NBSC (2001b–2009b).

**Table A3.6** Results of robustness examinations with enlarged sample

| | Dependent variable: Firm return on sales (FMROS) | | | | |
|---|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| Constant | –0.691 | –0.603 | –0.496 | –0.590 | –0.793 |
| | (0.424) | (0.420) | (0.481) | (0.470) | (0.496) |
| *Collective-level effects* | | | | | |
| PRLLC | 0.060 | 0.076 | | | 0.204 |
| | (0.116) | (0.115) | | | (0.126) |
| PRJSC | 0.484** | 0.461** | | | 0.503*** |
| | (0.189) | (0.187) | | | (0.186) |
| PRTNSOE | | | –0.111 | 0.101 | 0.008 |
| | | | (0.291) | (0.298) | (0.307) |
| PRTSOE | | | 0.358** | 0.357** | 0.438*** |
| | | | (0.151) | (0.148) | (0.158) |
| *Organizational-level effects* | | | | | |
| BGLIST | 0.105* | 0.104* | 0.069 | 0.072 | 0.076 |
| | (0.062) | (0.061) | (0.062) | (0.061) | (0.062) |
| FMTS | –0.092 | | –0.068 | | 0.002 |
| | (0.070) | | (0.071) | | (0.077) |
| FMOC | | 0.245*** | | 0.241** | 0.229** |
| | | (0.091) | | (0.094) | (0.103) |
| *Control variables* | | | | | |
| BGIC | –0.365*** | –0.366*** | –0.342*** | –0.345*** | –0.343*** |
| | (0.080) | (0.079) | (0.081) | (0.080) | (0.079) |
| BGGW | 0.022 | 0.026 | 0.024 | 0.027 | 0.028 |
| | (0.021) | (0.021) | (0.021) | (0.021) | (0.021) |
| BGSZ | 0.039** | 0.028 | 0.033 | 0.030 | 0.033 |
| | (0.019) | (0.019) | (0.021) | (0.021) | (0.022) |
| FMLEV | –0.211*** | –0.199*** | –0.233*** | –0.226*** | –0.221*** |
| | (0.064) | (0.064) | (0.065) | (0.065) | (0.064) |
| Observations | 321 | 321 | 321 | 321 | 321 |
| R2 (within) | 0.267 | 0.283 | 0.266 | 0.282 | 0.304 |

**Notes:** Using enlarged sample (including seven business groups fully listed before the sample period); coefficients from fixed-effects regressions; year dummies included in all specifications; standard errors in parentheses: *$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

## Appendices to Chapter 4

**Table A4.1** List of textile business groups in the sample

| | Business group | Status | | Business group | Status |
|---|---|---|---|---|---|
| 1. | Anhui Huamao Group | | 25. | Jiangsu Sanfangxiang Group | |
| 2. | Anhui Wanwei Group | | 26. | Jiangsu Sunshine Group | |
| 3. | Baoding Swan Chemical Fiber Group | | 27. | Jiangsu Wujiang Silk Group | |
| 4. | Black Peony Group | | 28. | Jiangsu Wuzhong Group | |
| 5. | China Shenma Group | | 29. | Jiangxi Textile Group | F |
| 6. | China Textile Resources Corporation | | 30. | Jilin Chemical Fiber Group | |
| 7. | China Worldbest Group | F | 31. | Luthai Group | |
| 8. | Dandong Chemical Fiber Group | | 32. | Nanshan Group | |
| 9. | Dayang Group | | 33. | Ningxia St. Edenweiss International Enterprises Group | F |
| 10. | Fujian Tiancheng Group | | 34. | Shanghai Chemical Fiber Group | F |
| 11. | Furun Holding Group | | 35. | Shanghai Dragon Group | |
| 12. | Guangdong Kaiping Polyester Enterprise Group | F | 36. | Shanghai Haixin Group | |
| 13. | Guangdong Meiya Group | F | 37. | Shanghai Sanmao Enterprise Group | |
| 14. | Guangdong Xinhui Meida Nylon | | 38. | Shanghai Shenda Group | |
| 15. | Hangmin Group | | 39. | Shanshan Group | |
| 16. | Hailan Group Corporation | | 40. | Shijiazhuang Changshan Textile Group | |
| 17. | Heilongjiang Longdi Group | F | 41. | Union Developing Group of China | |
| 18. | Hongdou Group | | 42. | Veken Holding Group | |
| 19. | Huacheng Group | F | 43. | Wanjie Group | F |
| 20. | Huafang Group of China | | 44. | Weifang Julong Chemical Fiber Group | F |
| 21. | Hubei Chemical Fiber Group | F | 45. | Xinxiang Bailu Chemical Fiber Group | |
| 22. | Hubei Maiyard Group | | 46. | Youngor Group | |
| 23. | Hunan Huasheng Industrial & Trading IMP. & EXP. Group | | 47. | Zhejiang China Light & Textile Industrial City Group | |
| 24. | Inner Mongolia Erdos Group | | 48. | Zhejiang Golden Eagle Group | |

**Note:** F=Failed business group.

**Table A4.2** Top ten shareholders of the core affiliate of a sample business group

| | Share-holder Type | Number of shares | Share-Holding Ratio (%) | Share type | Non-tradable shares | Pledged /frozen Shares |
|---|---|---|---|---|---|---|
| Veken Holding Group | State-owned | 87,169,200 | 29.70 | Non-tradable | 87,169,200 | 0 |
| Ningbo industry investment Co., Ltd. | State-owned | 51,350,000 | 17.50 | Non-tradable | 51,350,000 | 0 |
| Ningbo Textile Holding Co., Ltd. | State-owned | 18,000,000 | 6.13 | Non-tradable | 18,000,000 | 0 |
| ITOCHU Corporation | | 7,800,000 | 2.66 | Non-tradable | 7,800,000 | 0 |
| Shanghai Nanfang Real Estate Co., Ltd. | | 4,280,000 | 1.46 | Non-tradable | 4,280,000 | 0 |
| Hangzhou Isheng Trade Co., Ltd. | | 2,720,000 | 0.93 | Non-tradable | 2,720,000 | 0 |
| Hangzhou Tianmushan Pharmaceutical Co., Ltd. | | 2,600,000 | 0.89 | Non-tradable | 2,600,000 | 0 |
| Ningbo Yinsheng Investment Co., Ltd. | | 2,550,000 | 0.87 | Non-tradable | 2,550,000 | 0 |
| Hainan Pulin Investment Management Co., Ltd. | | 2,000,000 | 0.68 | Non-tradable | 2,000,000 | 2,000,000 |
| Shanghai Jiashida Trade Co., Ltd. | | 1,080,000 | 0.37 | Non-tradable | 1,080,000 | 0 |

The second-largest shareholder (Ningbo industry investment Co., Ltd.) and the third-largest shareholder (Ningbo Textile Holding Co., Ltd.) are wholly-owned subsidiaries of Ningbo Industry and Trade Asset Management Co., Ltd., and are therefore wholly state-owned companies.

The listed company is unaware if there are any associations among the top 10 shareholders or they are of the parties acting in concert.

**Source:** Annual report 2005 of Ningbo Veken Elite Group Co., Ltd. (Ningbo Veken Elite Group Co., Ltd. [Ningbo Veken Elite], 2006, pp. 4–5).

**Notes:** Ningbo Veken Elite is listed on Shanghai stock exchange (Company code: 600152); it is the core affiliate of Veken Holding Group, a sample business group included in this study.

**Table A4.3** Statistics on business-group-supporting policies: an illustration

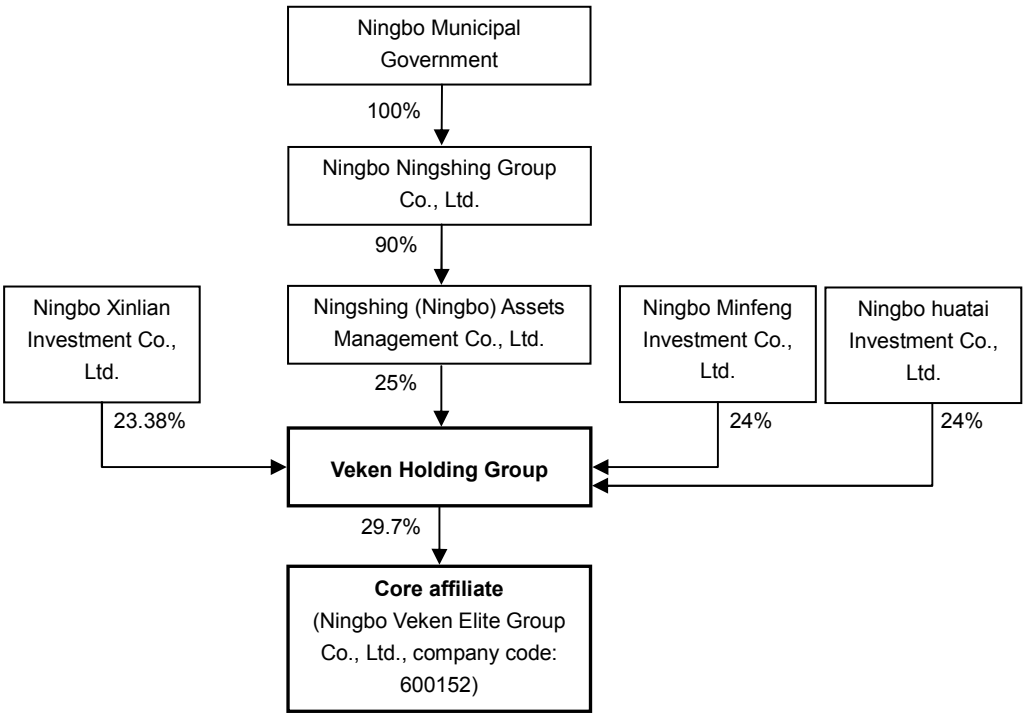
| Business-group-supportive policies | Proportion of business groups provided the policy in the province, 2005 (%) | |
|---|---|---|
| | Beijing | Shanghai |
| Comprehensive investment autonomy | 90.00 | 89.54 |
| Overseas financing rights | 31.79 | 22.22 |
| Provision of security to foreign entities | 77.86 | 78.43 |
| Independent import and export rights | 67.14 | 65.36 |
| Consolidated tax payment | 30.00 | 30.07 |
| Rights to contract overseas projects | 56.07 | 50.98 |
| Rights to approve foreign business affairs | 47.86 | 16.99 |
| Rights to establish technology/R&D centers | 47.86 | 44.44 |
| Rights to establish financial companies | 9.64 | 3.92 |
| ***Supportive policies*** | **50.91** | **44.66** |

**Notes:** Data source is NBSC (2001b–2009b); figures of Beijing and Shanghai provided for illustration.

**Table A4.4** Marketization degree of Chinese provinces during 2000–2008 (NERI Index)

| Province | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|---|
| Beijing* | 4.64 | 6.17 | 6.92 | 7.50 | 8.19 | 8.20 | 8.54 | 9.02 | 9.58 |
| Tianjin | 5.36 | 6.59 | 6.73 | 7.03 | 7.86 | 7.65 | 8.28 | 8.59 | 9.19 |
| Hebei* | 4.81 | 4.93 | 5.29 | 5.59 | 6.05 | 6.51 | 6.84 | 6.94 | 7.16 |
| Shanxi (Jin) | 3.39 | 3.40 | 3.93 | 4.63 | 5.13 | 5.06 | 5.56 | 5.91 | 6.18 |
| Inner Mongolia* | 3.59 | 3.53 | 4.00 | 4.39 | 5.12 | 5.26 | 5.89 | 5.91 | 6.15 |
| Liaoning* | 4.76 | 5.47 | 6.06 | 6.61 | 7.36 | 6.97 | 7.56 | 7.97 | 8.31 |
| Jilin* | 3.96 | 4.00 | 4.58 | 4.69 | 5.49 | 5.76 | 6.20 | 6.55 | 6.99 |
| Heilongjiang* | 3.70 | 3.73 | 4.09 | 4.45 | 5.05 | 5.33 | 5.61 | 5.76 | 6.07 |
| Shanghai* | 5.75 | 7.62 | 8.34 | 9.35 | 9.81 | 8.97 | 9.63 | 10.27 | 10.42 |
| Jiangsu* | 6.08 | 6.83 | 7.40 | 7.97 | 8.63 | 8.60 | 9.39 | 10.14 | 10.58 |
| Zhejiang* | 6.57 | 7.64 | 8.37 | 9.10 | 9.77 | 9.57 | 10.37 | 10.92 | 11.16 |
| Anhui* | 4.70 | 4.75 | 4.95 | 5.37 | 5.99 | 6.56 | 7.15 | 7.48 | 7.64 |
| Fujian* | 6.53 | 7.39 | 7.63 | 7.97 | 8.33 | 7.94 | 8.42 | 8.59 | 8.78 |
| Jiangxi* | 4.04 | 4.00 | 4.63 | 5.06 | 5.76 | 6.26 | 6.64 | 7.10 | 7.48 |
| Shandong* | 5.30 | 5.66 | 6.23 | 6.81 | 7.52 | 7.87 | 8.24 | 8.47 | 8.77 |
| Henan* | 4.24 | 4.14 | 4.30 | 4.89 | 5.64 | 6.58 | 7.11 | 7.38 | 7.78 |
| Hubei* | 3.99 | 4.25 | 4.65 | 5.47 | 6.11 | 6.42 | 6.85 | 7.05 | 7.33 |
| Hunan* | 3.86 | 3.94 | 4.41 | 5.03 | 6.11 | 6.25 | 6.74 | 6.86 | 7.18 |
| Guangdong* | 7.23 | 8.18 | 8.63 | 8.99 | 9.36 | 9.04 | 9.72 | 10.10 | 10.25 |
| Guangxi | 4.29 | 3.93 | 4.75 | 5.00 | 5.42 | 5.40 | 5.71 | 5.90 | 6.20 |
| Hainan | 4.75 | 5.66 | 5.09 | 5.03 | 5.41 | 5.36 | 5.66 | 6.36 | 6.44 |
| Chongqing | 4.59 | 5.20 | 5.71 | 6.47 | 7.20 | 6.64 | 7.26 | 7.40 | 7.87 |
| Sichuan | 4.41 | 5.00 | 5.35 | 5.85 | 6.38 | 6.63 | 6.95 | 7.30 | 7.23 |
| Guizhou | 3.31 | 2.95 | 3.04 | 3.67 | 4.17 | 4.61 | 4.94 | 5.40 | 5.56 |
| Yunan | 4.08 | 3.82 | 3.80 | 4.23 | 4.81 | 4.88 | 5.57 | 5.82 | 6.04 |
| Xizang | 0.00 | 0.33 | 0.63 | 0.79 | 1.55 | 0.30 | 0.29 | 1.63 | 1.36 |
| Shanxi (Qin) | 3.41 | 3.37 | 3.90 | 4.11 | 4.46 | 4.37 | 4.71 | 4.82 | 5.66 |
| Gansu | 3.31 | 3.04 | 3.05 | 3.32 | 3.95 | 4.32 | 4.58 | 4.82 | 4.88 |
| Qinghai | 2.49 | 2.37 | 2.45 | 2.60 | 3.10 | 3.09 | 3.29 | 3.54 | 3.45 |
| Ningxia* | 2.82 | 2.70 | 3.24 | 4.24 | 4.56 | 4.47 | 5.10 | 5.44 | 5.78 |
| Xinjiang | 2.67 | 3.18 | 3.41 | 4.26 | 4.76 | 4.86 | 4.87 | 5.04 | 5.23 |

**Notes:** Data derived from Fan et al. (2011); * indicates that provinces in which sample business groups were located.




**Source:** Annual report 2005 of Ningbo Veken Elite Group Co., Ltd. (Ningbo Veken Elite, 2006, p. 6).
**Notes:** Ningbo Veken Elite is listed on Shanghai stock exchange (Company code: 600152). This listed company is the core affiliate of Veken Holding Group, a business group included in the sample of this study; the annual report also disclosed important information such as legal representatives, registered capital, and founding date of the business group.

**Figure A4.1** Property relations of the core affiliate of a sample business group

## Appendices to Chapter 5

**Table A5.1** Results of robustness examinations using Herfindahl diversification measures

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| | Tobin's Q | ROA | Tobin's Q | ROA |
| UDIV | 0.792 ** | –0.082 ** | –0.306 | –0.103 * |
| | (0.359) | (0.041) | (0.501) | (0.059) |
| RDIV | 0.260 | –0.017 | 2.286 *** | 0.167 ** |
| | (0.308) | (0.035) | (0.636) | (0.074) |
| UDIV × GP | | | 1.874 *** | 0.033 |
| | | | (0.634) | (0.074) |
| UDIV × GP | | | –2.580 *** | –0.231 *** |
| | | | (0.705) | (0.082) |
| LEV | –0.224 | –0.128 *** | –0.058 | –0.117 *** |
| | (0.343) | (0.039) | (0.332) | (0.039) |
| SIZE | –0.106 | 0.025 | –0.084 | 0.028 * |
| | (0.135) | (0.016) | (0.131) | (0.015) |
| GROWTH | 0.026 | 0.024 * | 0.019 | 0.023 * |
| | (0.108) | (0.012) | (0.105) | (0.012) |
| R2 (within) | 0.636 | 0.171 | 0.665 | 0.197 |

**Notes:** Coefficients from fixed-effects regressions; year dummies included in all specifications; standard errors in parentheses: *$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

**Table A5.2** Results of robustness examinations using narrow-spectrum definition of the textile industry

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| | Tobin's Q | ROA | Tobin's Q | ROA |
| UDIV | 0.700 *** | –0.043 * | 0.479 | –0.006 |
| | (0.187) | (0.022) | (0.299) | (0.036) |
| RDIV | –1.109 *** | 0.018 | 0.093 | 0.060 |
| | (0.304) | (0.036) | (0.715) | (0.086) |
| UDIV × GP | | | 0.320 | –0.054 |
| | | | (0.344) | (0.042) |
| RDIV × GP | | | –1.499 * | –0.049 |
| | | | (0.795) | (0.096) |
| LEV | –0.095 | –0.134 *** | –0.084 | –0.137 *** |
| | (0.323) | (0.039) | (0.321) | (0.039) |
| SIZE | –0.072 | 0.025 | –0.054 | 0.027 * |
| | (0.129) | (0.015) | (0.129) | (0.016) |
| GROWTH | 0.012 | 0.024 * | –0.005 | 0.024 * |
| | (0.104) | (0.012) | (0.103) | (0.012) |
| R2 (within) | 0.672 | 0.171 | 0.679 | 0.177 |

**Notes:** Coefficients from fixed-effects regressions; year dummies included in all specifications; standard errors in parentheses: *$p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; diversification variables are entropy measures.

**Table A5.3** Distribution of business segments of sample firms in the textile industry

| | CSIC 17 | CSIC 18 | CSIC 19 | CSIC 28 | CSIC 26 | CSIC 63 |
|---|---|---|---|---|---|---|
| Broad/narrow spectrum | B/N | B/N | B/N | B/N | B | B |
| Number of firms | 44 | 28 | 2 | 19 | 6 | 27 |
| Proportion (%) | 70.97 | 45.16 | 3.23 | 30.65 | 9.68 | 43.55 |

**Notes:** B=broad-spectrum textile industry; B/N indicates that the two-digit CSIC industry falls into the scope of both the broad-spectrum and the narrow-spectrum textile industry; Proportion=100×Number of firms/Total number of firms in the sample.

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