國立政治大學企業管理學系

博士論文

指導教授：于卓民 博士

克服組織認同衝突—

網絡策略、組織認同與合作間關係之研究

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誌 謝

畢業了，心中充滿著感動與感激。回首過去，指導我的師長、呵護我與支持我的家人與男友，還有那許許多多不厭其煩接受訪談與填問卷的公司主管們，他們所給予我的感動以及點滴在心頭的感激，並不是三言兩語即可道盡。

首先，我要謝謝我的指導教授 于卓民老師。從碩士到博士，每當我需要幫忙時，他總是伸出援手，我受過他的恩惠實在太多，在我心中他始終是個盡心盡力愛護學生的師長。從初入博士班閱讀理論發展之經典文獻，到給我資料讓我得以在國際會議上初試啼聲，再到解答我在研究上所碰到的各種疑難雜症以及用心修改我所寫的文章使其能更臻完美。這一路上，于老師不但帶領我一窺學術殿堂之奧妙，更是個扮演好「傳道、授業、解惑」的良師典範。如果我能夠為社會貢獻一點知識或是盡一己棉薄之力，老師的教導功不可沒。

再來，我要感謝在美國賓州州立大學任教的 蔡文彬老師。在他所開授的社會網絡課程中，我不但對社會網絡理論以及相關的統計分析方法與軟體更加熟悉，更學到了老師認真教學的敬業態度以及追求創新的思考方式。在與他共同合作的過程中，我真的學到非常多，從該如找到有趣的研究議題，到具有創意的思考，再到指正我所犯的錯誤，每回跟老師討論，都有種入寶山滿載而歸之感。他幫助我跳脫制式的框架，從不同的面向去看事情，嘗試想到不一樣且具有創意的答案，這樣的思維訓練讓我一輩子受用。

接續，我要感謝我的口試委員們。謝謝 吳齊殷老師，在過去兩年修習老師所開的社會網絡課程中，他幫助我從完全不了解社會網絡，到了解甚至喜歡上網絡理論，謝謝老師點燃我對於社會網絡研究的濃厚興趣，也謝謝老師在博士論文的口試中總是幫我想如何讓這份研究更有理論與實務貢獻。謝謝 王思峰老師，仔細閱讀我的論文且毫無保留的分享他的想法，還教導我如何從不一樣的角度去重新檢視我的個案資料。謝謝 莊璦嘉老師，在我的新構念發展不出量表之際，給了我許多參考文章與可著手的方向，更在我茫然無助時，告訴我可以用甚麼統

計方法與軟體完成這份研究，她總能在適當的時候像盞明燈指引一條出路。謝謝蔡維奇老師，給予我紮實的研究方法課程訓練，甚至不管我在國內還是在國外，如有問題寫信給老師，老師總能給我即時的回覆與解決方法，在口試中更樂於分享他的研究經驗並告訴我該怎麼做。謝謝 吳秉恩老師，像個慈父永遠笑臉迎人，在口試緊張的過程中給我安定的力量，更在論文的撰寫上教導我該如何補強。謝謝 陳厚銘老師，從理論到方法再到衡量，都給予我許多寶貴且值得進一步思考的建議。謝謝 巫立宇老師，在我需要幫忙且時間急迫下，幫了我一個大忙。

此外，我要感謝政大企管所內許多的師長，在我就讀碩士與博士時期給予指導。謝謝 司徒達賢老師，訓練我在理論與實務上的反覆思考能力，並且適時的給予我完整的理論架構讓我的研究得以順利進行。謝謝博士期間教導我的許士軍老師、吳思華老師、邱志聖老師、林淑姬老師等，以及碩士期間教導我的林月雲老師、樓永堅老師、賴士葆老師、黃秉德老師、楊子江老師、陳隆麒老師等，他們無私的指導讓我對於企業管理的各個面向都有更深入的了解。

還有，我要感謝接受訪談與幫忙填寫問卷的主管們。由於不能公佈實際公司名稱且必須採取匿名之因，我無法在此一一將他們列舉出來，但是真的很感謝他們在公務繁忙之際，仍願意撥空接受我的訪談，甚至不厭其煩的幫助我與找相關人員填寫問卷。他們的協助讓我順利完成論文資料的蒐集，也對實際的企業運作有更深刻的體會。他們所給予我的感動與感恩，是很難用一句"謝謝你"所能表達，但願在我的努力下，能夠有一些對實務有所貢獻的發現，好好報答這些長官們對我的關愛與協助。

最後，我要謝謝我的家人，為了此博士論文的資料蒐集，幾乎是動員了全家，真的很謝謝伯父與爸爸，不畏艱難也要力挺到底的幫我完成資料的蒐集，謝謝媽媽陪我東奔西跑還有悉心的照顧我，謝謝弟弟、伯伯、叔叔、舅舅與阿姨等的關心，還要謝謝男友，花了好幾年的時間等我畢業，且在這等待的期間中總是給予我支持下去的力量與溫暖。家人與男友無私的付出，真的讓我很感動與常懷

感恩之心。

　　飲水思源，如果沒有上述這麼多人的幫忙，我想我是很難順利取得博士學位。我想對我的恩師、幫助我的許多長官們以及口試委員，還有我所愛的家人與男友說：「謝謝你們!!真的很謝謝你們在我最需要幫忙的時候伸出援手，在我挫折與難過時陪伴左右，我會將這份感動與感恩珍藏心中，但願有一天也能夠有所回饋!!」

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吳紹慈 謹識於高雄

2010 年 6 月 14 日

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OVERCOMING ORGANIZATIONAL IDENTITY CONFLICTS – THE RELATIONSHIP AMONG NETWORK STRATEGY, ORGANIZATIONAL IDENTITY, AND COOPERATION

ABSTRACT

Identity conflicts can seriously endanger an organization's survival. Extant studies emphasize the consequences of identity conflicts but not how conflicting parties extricate themselves from this trap. I investigate how an acquired firm uses network strategies to develop more integrating values and distinctive values, resolve identity conflicts, and successfully integrate into the group. To echo these qualitative findings, in my empirical study in the setting of a business group, I found that firms with high identity integration and high identity differentiation have more chances to cooperate with other group members. In addition, peripheral brokers are more likely to achieve high identity integration and high identity differentiation, and further have more cooperation. Implications and future research directions are also provided.

Keywords: Network Strategy, Organizational Identity, Cooperation, Business Groups

克服組織認同衝突─網絡策略、組織認同與合作間關係之研究

摘要

組織認同衝突嚴重影響著組織的生存。可惜的是，過去研究多著重於探討組織認同衝突所帶來的影響與嚴重性，但卻較少提及衝突雙方該如何解決此問題。在本論文中，我觀察一個被購併進集團的公司，如何運用網絡策略去培養更多與集團內其他成員相容的價值，同時保存與發展了獨特的價值，進而幫助個案公司跳脫認同衝突的困境並成功整合進集團。為了呼應個案研究之發現，我以一個集團企業做為研究情境，搜集資料並進行實證研究，我發現當一家公司同時具備高整合與高差異化的組織認同時，可得到較多與集團內其他成員合作的機會。此外，在集團網絡中佔據邊陲掮客網絡位置的成員，較有可能培養出高整合與高差異化之組織認同，進而得到較多的合作。本論文亦於結尾提供研究意涵與未來研究方向。

關鍵字: 網絡策略, 組織認同, 合作, 集團企業

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CHAPTER 1. INTRODUCTION

SECTION 1.1. RESEARCH GAP AND RESEARCH QUESTION

Organizational identity theory is a cornerstone of management literature. Organizational identity represents a shared understanding of the central, distinctive, and enduring characteristics of the organization among its members (Albert & Whetten, 1985; Dutton & Dukerich, 1991). When organizations face identity threats which basically question insiders' self-perceptions, the feelings of hostility are inclined to escalate (e.g., Northrup, 1989). Moreover, it is not easy for conflicting parties extricate themselves from this conflict trap which endangers organizations' survival (Fiol, Pratt, & O'Connor, 2009). However, how do firms resolve identity conflicts? Although there is considerable consensus on the importance of resolving identity conflict, I still do not comprehend what pushes people to rethink the nature of their identities and further modify their identities to terminate identity conflicts.

In the past decades, many studies empirically test the relationship between explanatory variables and acquisition performance. In spite of this, researchers still encourage future research to pay more attention on the integration process and clarify casual ambiguity between integration decisions and outcomes (Datta & Grant, 1990; Hitt, Harrison, Ireland, & Best, 1998; Hoskisson, Hitt, Johnson, & Moesel, 1993). As a result, I attempt to understand the strategy of a newly merged firm which faced serious identity conflicts in the post-acquisition period and had better be spun-off, but it, surprisingly, resolved identity conflicts and successfully integrated into the group.

Moreover, this merged firm was a peripheral actor when it joined the business group. After several years, it moved to a relatively central position. How did it achieve this goal and gain more cooperation with other group members? What kind of network position can help it to use an innovative strategy to gain more chances of

cooperation?

I add theoretical values in four ways.   First, I explicate the long-term process leading a new group member to transform its identities, to terminate other members' hostility towards it, and finally to become a role model.   Second, while traditional organizational identity literature emphasizes that increasing similarities and decreasing dissimilarities can reduce hostility among conflicting parties, I propose that increasing similarities and decreasing dissimilarities is not the only way out. Third, while traditional social network literature focused on the behavior of central actors, I try to examine the strategy of peripheral actors.   I find that peripheral actors can improve their positions by changing their combination of identities; this is a way which never came into my mind and seldom be mentioned by previous studies. Fourth, while existing literature argues that central actors are more likely to gain more cooperation, I, counter-intuitively, find that peripheral brokers can obtain more cooperation

Moreover, I add methodological values in two ways.   First, while previous studies cannot collect invisible and longitudinal network data in the business group due to the difficulty of data access, I successfully complete this task.   Second, I combine deductive and inductive approaches to find multiple dimensions of two important constructs in the management field, integration and differentiation.

SECTION 1.2. RESEARCH PROCESS

This study includes three stages. In the initial stage, I went through organizational identity and social network literature, looking for possible and valuable research issues. Meanwhile, I chose a business group which is among the world's Top 20 largest firms in mental industry as my research setting and spent five months to interview top managers and visited many group affiliates. I finally discovered an interesting case and some potential research questions.

In the second stage, I collected interview and various kinds of self-report data and secondary data to complete case study which interprets an integration process of a newly merged firm. Then, I not only developed theoretical hypotheses but also combined deductive and inductive ways to generate items for two new constructs, identity integration and identity differentiation. Regarding other variables, I picked out measures which were reliable and validated in previous studies.

In the third stage, I collected data from multiple sources to test my hypotheses. The insights from case study were verified by the empirical findings. Theoretical and practical implications and directions of future research are offered.

SECTION 1.3. BRIEF OUTLINE OF THE THESIS

This thesis is structured as follows:

CHAPTER 1. INTRODUCTION: Research gap, research question, research process, and brief outline of the thesis are illustrated in this chapter.

CHAPTER 2. LITERATURE REVIEW: In the beginning, the definition of organizational identity is provided and the importance of resolving identity conflict is stressed. If conflicting parties would like to extricate themselves from conflict trap, they might need to modify or change their identities. In order to know identity changes, I trace the history of organizational identity literature, which offers the reason why organizational identity changes can occur. More recently, scholars have moved on to the question of how organizational identity changes can occur. Although the serious consequences of identity conflicts are commonly mentioned, existing studies seldom provide some evidence and illustrate what kind of network strategy can guide network actors to change their identities and get out of the identity conflict trap. In the end of this chapter, I briefly explain why I choose an acquired firm as research target and conduct case study to know the change process.

CHAPTER 3. CASE STUDY: I discuss data sources and data collection methods first. Then, I report longitudinal research on the process leading a merged firm to reach identity integration and identity differentiation, to successfully integrate into a business group, and to further become a role model in the third chapter.

CHAPTER 4. HYPOTHESES: To verify the findings in the case study, I also conduct an empirical study. When I develop hypotheses, I not only deductively develop some theoretical arguments but also propose some new ideas.

CHAPTER 5. RESEARCH METHODOLOGY: I discuss data sources, data collection methods, measures, and related information (such as validity, reliability,

and data aggregation) in the fifth chapter.

CHAPTER 6. EMPIRICAL RESULTS: I start with descriptive statistics and correlations for all measured variables. Then, I present detailed information about the results of empirical testing.

CHAPTER 7. DISCUSSION AND CONCLUSION: I summarize major findings to echo our research question and research purposes, discuss the implications, and provide directions of future research in the seventh chapter.

CHAPTER 2. LITERATURE REVIEW

Organizational identity represents the members' collective beliefs about what is the central, distinctive, and enduring essence of the organization (Albert & Whetten, 1985; Dutton & Dukerich, 1991).   Every organization needs the identity to differentiate it from others and to help insiders to answer the question about who they are as an organization (Albert & Whetten, 1985; Ashforth & Mael, 1996).   However, an organization does not automatically announce its identity.   Rather, internal stakeholders' perception, attention, and interpretation come together to define "what does this organization stand for?" and distinguish themselves from others.   There is recognition that organizational identity reflects not only how people categorize themselves (Ashforth & Mael, 1989; Rao, Davis, & Ward, 2000) but also how people perceive the world.   Unfortunately, people tend to pick out those bits of information that make they feel good because those pieces of information confirm their beliefs (Northrup, 1989).   This signifies that an organization will suffer through members' refusal to accept entity change, even though it is a beneficial change, because members prefer to believe that their belief is the best for the organization (Reger, Gustafson, DeMarie, & Mullane, 1994) and avoid the perceived world is disrupted. Scholars have noted that the identity change process may last for a long period of time (eg., Albert & Whetten, 1985).   Fully understanding the difficulty of identity change, it is not hard to comprehend that, when organizations face threats to their identities, conflicts go worse, because those threats fundamentally challenge insiders' self-definitions and question their own beliefs (e.g., Northrup, 1989).   This cognitive dissonance could cause one side or other to escalate the conflict.   To the best of my knowledge, however, the literature provides little evidence to explicate successful changes of organizational identity.   Numerous researchers have placed primary

emphasis on the antecedents of or the outcomes of organizational identity, with little emphasis on organizational identity itself and investigating how an organization find ways to change its identity and get out of an identity conflict trap (e.g., Corley & Gioia, 2004; Fiol, Pratt, & O'Connor, 2009; Ravasi & Schultz, 2006).

According to social identity theory, actors incline to classify themselves and others into different categories (Tajfel & Turner, 1985).   The suitable and keenly anticipated behavior gives meaning to the category (Rao, Davis, & Ward, 2000) and draws a boundary between "us" and "them".   To avoid the boundary being blurred and muddled, people tend to highlight the similarities within groups and dissimilarities between groups (Rao, Davis, & Ward, 2000).   Sometimes members build their self-definitions on defining who they are not (disidentification) (Dukerich, Kramer, & Parks, 1998; Elsbach, 1999; Pratt, 2000) or looking down on others (Rao, Davis, & Ward, 2000) to accentuate the group to which they belong is better than other groups.   The negation of others makes it difficult for people to stop viewing others as the enemy, because the feelings of hostility toward one another come from denying a central or large element of other group's identity (Ashmore, Jussim, Wilder, & Heppen, 2001; Northrup, 1989).   As for the focal group, an agreement with other group's identity is directly or indirectly against their own identity which is established on negatively stereotyping others.   When identity is involved in a conflict, such long-lasting conflict traps the organization in a spiral trend of disharmony and endangers the organization's survival (Fiol, Pratt, & O'Connor, 2009).   There is considerable consensus on the importance of resolving identity conflict.   While researchers propose what is needed is a change of identity to extricate conflicting parties from the conflict trap (Kelman, 2006; Northrup, 1989), I am still left in the dark about what pushes people to rethink the nature of their identities as well as making further changes and how to terminate the identity conflict.

Dutton and Dukerich(1991), studying how the Port Authority of New York/New Jersey adapted to environmental shift, offered an early description of the effect of organizational identity on members' perception as well as organizational action. Their findings showed that organizational identities and insiders' awareness of what outsiders think about the organization jointly determined members' interpretations of an issue and organizational changes.   When insiders were aware that there is a gap between their own perceptions and outsiders' perceptions of the organization, they will re-examine both their understanding of "what does this organization mean?" and their membership of this organization.   Reger et al.(1994) further proposed a dynamic framework in which leaders' reframing abilities can guide the evolution of organizational identity by constructing an ideal identity.   The perceived gap between current ("who we are") and ideal identity ("who we want to be") pushes members to have a mind to transform organizational identities.   To provide empirical evidence of the relationship between identity gap and identity change, Gioia and Thomas(1996) looked into how top management teams in a large public research university unfroze existing identities to reach possible selves.   Their findings that desired future image acted as the trigger for organizational identity transformation.   Similarly, the discrepancies between insiders' self-definitions (the identity) and outsiders' feedback set off organizational identity shifts (Elsbach & Kramer, 1996; Foreman & Whetten, 2002; Gioia, Schultz, & Corley, 2000).   Tracing the history of organizational identity literature, I can gradually realize the reason why organizational identity changes can occur.

More recently, identity researchers have moved on to the question of how organizational identity changes can occur.   Fiol(2002) argued that rhetorical techniques are important tools for executives to loosen members' ties with old identities and tighten members' ties with new core values, for the sake of relieving the

pressure of resistance during times of identity changes.   Similar to rhetorical techniques, identity ambiguity (members have no clear sense of "who they are") opens the space for reframing perceptions of identity (Corley & Gioia, 2004).   To interpret how a group can change its identity and further extricate itself from an identity conflict trap, Fiol, Pratt, & O'Connor (2009) presented an intractable identity conflict model that the validation of subgroups' identities provides a secure place for subgroup members and creates subgroup members' willingness to adopt a dual identity which contributes to intergroup harmony.   However, organizations are unable to create a self-sufficient world for themselves or isolate themselves from all society.   Rather, organizations have to trade with each other and interact with other entities (e.g., Freeman, 1984; Granovetter, 1985; Uzzi, 1997; Rao, Davis, & Ward, 2000).   While existing studies focus on one party's identity which is contingent on the focal party's perception ("who do I think I stand for?") and the other party's feedback ("who do they think I stand for?"), they neglect that, through social interaction, the other party's perception may also be influenced by the focal party and such perception shift determines how they make sense of the focal party.

Conventional wisdom suggests that social interaction shapes actors' identities (e.g., Cooley, 1902; Goffman, 1959; Ibarra, Kilduff, & Tsai, 2005; Mead, 1934; White, 1992).   To illustrate, Becker and Carper (1956) observed that, through social interaction, graduate students in physiology gradually shifted their attitudes to "who they are" from "who they want to gain admissions from medical schools and regard the physiology department as a stopgap" to physiologists.   Frequent interaction with peers molded students' values, norms, and self-definitions.   Using a network of partners, people distribute messages "who they are" or "who they want to be seen" to others (Ibarra, 1999).   By observing partners' response to their messages, people keep or modify their identities (Swann, 1987).   As a result, identities have been

viewed as outcomes of negotiation between different parties in social networks (e.g., Cooley, 1902; Mead, 1934; Goffman, 1959).   Nevertheless, the effect of one party's reactions on the other party's identities is not one way only.   Both sides influence each other reciprocally and simultaneously.   While the focal actor modifies its self-conceptions due to the awareness of the discrepancies between its perceptions and others' feedback, meanwhile, other actors, influenced by the focal one, also modify their perceptions toward the focal actor or even redefine their self-conceptions. It is thus evident that networks pour dynamic elements into the identity transformation process (Ibarra, Kilduff, & Tsai, 2005).   Actors prefer to build connections with people who can help find possible selves but simultaneously abandon connections with people who can limit the improvement of identities (Ibarra, Kilduff, & Tsai, 2005).   Although the association between social interaction and identity is well documented, I have limited empirical evidence about how one's relations with others serve as the fountainhead of organizational identity shifts (Brickson, 2005). Moreover, while existing works try to provide a satisfactory explanation for why and how a focal actor can extricate itself from identity conflict trap, I try to provide more empirical support (which is limited in the identity conflict literature) to explicate why and how a newcomer can use networking strategy to change its identities, to further shift others' perceptions towards it and themselves, and to reach harmony.

Because the identity literature seldom examines how social interaction facilitates a firm's abilities to trigger identity changes and to free conflicting parties from identity conflict trap, I undertook the investigation inductively, adopting an interpretive approach.   Interpretive approach can help me build theoretical arguments by inferring from what people (who were there during times of identity conflict and experiencing the transition) said and what archival data showed.   Unfortunately, it is difficult to observe the evolution of organizational identity or prompt insiders to share

experiences, because insiders incline to keep silence to maintain the stability of their identities (Whetten & Godfrey, 1998). For this reason, I chose a research context in which the issue of identity conflict (which was reported in the newspapers) was obvious to make insiders feel more comfortable to talk about this transition. A successful integration case was chosen by me for this case study. Compared to other members, the newcomer I studied initially had widely different identities which made it had better be spun off; however, it has successfully integrated into the group. This case study reports longitudinal research on the process leading this newcomer to transform its identities, to terminate other members' hostility towards it, and finally to become a role model. The case study is followed by an empirical study. I collected long-term data from multiple sources to echo findings in the case study.
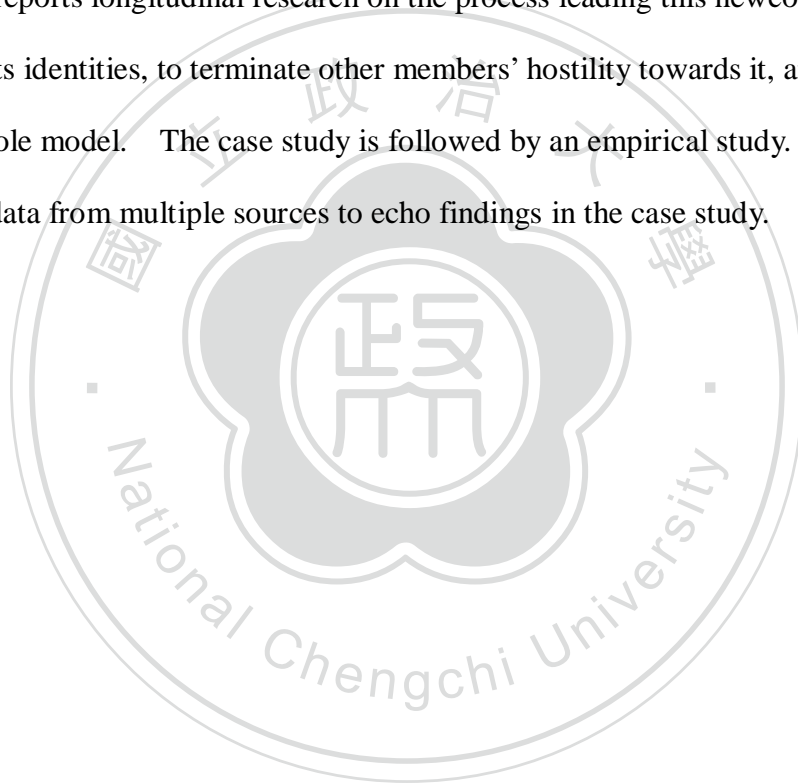
CHAPTER 3. CASE STUDY

SECTION 3.1. DATA COLLECTION

The organization I studied was acquired by a large and multinational business group (fictitious name: BETA Group) in 2000. At the time of acquisition, BETA Co. (the group headquarters) obtained the ownership of the acquired organization (which was given a fictitious name "Ba Co.") in terms of equity holdings and had the power to determine board positions. Unfortunately, other group members refused to accept Ba Co. as one of them, even though it had the membership of BETA Group in accordance with legal requirements or group boundaries defined by numerous scholars (e.g., Granovetter, 1995; Khanna & Rivkin, 2001). On the other hand, people in Ba Co. felt frustrated and confused due to this gap and the hostility towards them. In the initial stage, Ba Co. was considered an unwelcome isolator within the group. Going through a tough time, Ba Co. was gradually accepted by other members and eventually became a role model.

Data Collection

To avoid any problems owing to retrospective data (e.g., post-event rationalizations), I corroborate informants' accounts by different informants' statements or alternative sources. As a result, I collected not only interview data but also self-report data and archival data. All data collection was longitudinal. The interview data combined historical data and current data collected during the research period. The self-report data covers the period 2001-2007. The archival data spans 9 years, from the announcement of acquisition to the end of this research project (2000-2008). Table 3.1 lists all kinds of data, time period, and data sources.

Table 3.1

Data Collection for Case Study

Data	Time Period	Data Sources
Interview Data	Historical and current data	1. Formal interview: 26 semi-structured interviews. 220 pages of written transcriptions.
		2. Informal interview
Self-report Data		
1. Transaction Network	2001-2007	All group members: 2003-2007. Ba. Co.: 2001-2007.
2. Personnel Transfer Network	2001-2007	All group members: 2003-2007. Ba. Co.: 2001-2007.
3. Friendship Network	2001 and 2007	Three presidents
Archival Data	2000-2008	1. Internal documents (i.e., meeting memos, statistics)
		2. Excellent Business Database System (EBDS)
		3. *Business Groups in Taiwan* compiled by CCIS
		4. *Tsai Hsun* (*Wealth Magazine*) Database
		5. Biographies, corporate annual reports, and books.

Interview data.

Researchers have indicated that top management team plays a crucial role in perceiving some transformations in an organization (e.g., Isabella, 1990).   Their active participation in organizational changes gets top managers to be viewed as important interviewees (Kumar, Stern, & Anderson, 1993).   As a result, I began this research project by choosing top managers as key informants who can tell me the process of this transition.   Then, I requested these top managers to recommend additional informants at different hierarchical levels or different functional areas.   I conducted 26 semi-structured interviews; all were tape-recorded and transcribed, yielding close to 220 pages of written transcriptions.   To clarify differences and discrepancies, I had multiple interviews with some participants, so twenty key

executives were interviewed. Mangers from different backgrounds, different levels, different functions, and different group affiliates who participated in or influenced by the decision of networking strategies and organizational identity changes were formally interviewed. These interviews offered more detailed information about how network strategies, identity conflicts, and identity changes were perceived and experienced by individuals. Throughout the research period, informal discussion with different employees was used to confirm the data I obtained from formal interviews. For example, if A told me something about the routine of alpha department, I would ask B to describe the routine of alpha department to verify A's words. The list of managers who were formally interviewed, their positions and the number of times they were interviewed is shown in Table 3.2.

All interviews lasted approximately three hours. I began the initial interview with a vague research question: How did the Ba Co. successfully integrate into the group while conflicts between it and other group-affiliated firms were apparent at the beginning? The initial interview laid the foundations for subsequent interviews and expanded the range of subsequent data collection. The follow-up interviews were semi-structured, for comprehending how people did and experienced this historical transition, rather than how people thought about it. Following guidelines for qualitative studies, I conducted the initial and follow-up interviews as descriptive as possible until the main motif, social interaction ("building connections and maintaining good relationships with sister firms" mentioned by key informants), came up (e.g., Miles & Huberman, 1994). Subsequent interviews became more structured and emphasized on main themes like networking strategy and the relationship between social interaction and organizational identity changes which I would like to explore in detail.

TABLE 3.2

Summary of Participants Interviewed

Interviewees	Number of interviews
1.President, Ba Co.	4
2.President, Bb Co.	2
3.President, Bc Co.	2
4.President, Bd Co.	1
5.President, Be Co.	1
6.Vice President, Production Division, Ba Co.	1
7.Vice President, Administration Division, Ba Co.	1
8.Vice President, Business Division 1, Bf Co. in 2007	1
9. Assistant Vice President, BETA Co.	1
10.Deputy General Manager, Information & System Department, Ba Co.	1
11.Deputy General Manager, Commercial Administration Department, Ba Co.	1
12. General Superintendent, Mill A, Ba Co.	1
13. General Superintendent, Mill B, Ba Co.	1
14. Assistant General Superintendent, Mill B, BETA Co.	1
15. Consultant, Ba Co. in 2003-2007	1
16.Senior Manager, Production Division, BETA Co	2
17.Senior Manager, Business Division 1, Bf Co.	1
18.Senior Manager, Business Division 2, Bf Co.	1
19.Senior Manager, Commercial Division, Bg Co.	1
20.Senior Manager, Administration Division, Bg Co.	1

Self-report data.

To confirm informants' accounts and examine inter-firm linkages within the

group, I gathered longitudinal network data through surveys.

Transaction network and personnel transfer network

To outline the evolution of network, I used sociometric techniques to collect

long-term information about transaction network and personnel transfer network.

The data of both networks were historical, covering the period 2003-2007.   I

distributed these network surveys to all companies in the BETA Group.   To verify

the responses, I also asked opposite questions. For transaction network, I asked the focal firm to indicate sister affiliates which sell products or services to it. For personnel transfer network, I requested the focal firm to identify sister affiliates which transfer talents to it to act as managers. To validate the data, I also asked opposite questions, "which group members buy products or services from you" and "which group members transfer managers from your firm". I offered a list of all group members in the questionnaire so that respondents can easily choose their answers from the list. In addition, I double-checked all answers; for example, when firm i pointed out firm j as a product or service provider and firm j pointed out firm i as a product or service buyer, an transaction relationship was recognized. I did follow-up interviews (i.e., interviewing managers in firm i and firm j) to clarify some discrepancies. I further asked the Ba Co. to offer information about transaction and personnel transfer network during the period 2001-2002; these documents enabled me to grasp its ego network evolution.

Executives' friendship network

Because executives' friends affect executives' cognitions which shape firms' strategic responses (McDonald & Westphal, 2003), I also use a questionnaire to sketch the outline of 2001(the next year after the acquisition) and 2007(the time I collected friendship data) top executives' (the boss and the president of each group-affiliated firms) friendships within the group. I listed the names of all chairmans and presidents in the group and initially asked the president of the Ba Co. (who was assigned to be an executive in the Ba Co. in the initial stage of post-acquisition and experienced throughout the transformation period) to indicate whom was who's friend in 2001 and in 2007. The BETA Group had 29 group members in 2001 and 35 group members in 2007. As a result, based on the

president's answers, I was able to create a 29×29 top managers' friendship matrix for 2001 and a 35×35 matrix for 2007.   These friendship matrices are cognitive maps which represent an individual's perceptions of who links to whom in a particular social system (Kilduff & Tsai, 2003).   However, there is a gap between how people perceive this network and the actual pattern of connections existing in this network. In another word, people have biases in social perceptions (Kilduff & Krackhardt, 1994; Kumbasar, Romney, & Batchelder, 1994).   For the sake of reducing biases, I chose another two presidents (one from a central firm and the other from a peripheral firm) to fill out this questionnaire.

Archival data.

To investigate the process of resolving identity conflict and understand the thought behind it, I collected a wide scope of information.   First, the main source was different kinds of documents (i.e., meeting memos, statistics) collected from all functional areas within the Ba Co.   These archival data helped me to illustrate the evolution of organizational identities and understand the response from outsiders, including the headquarters of BETA Group, other group-affiliated firms, and external stakeholders such as customers.   The second source was the Excellent Business Database System (EBDS), an electronic database, providing full-text of more than 200 periodicals and newspapers published in Taiwan.   The third one was the directory of *Business Groups in Taiwan* which is compiled by the China Credit Information Service (CCIS), an affiliate of Standard & Poor of the United States and the most prestigious credit checking agency in Taiwan.   Since 1972, the China Credit Information Service (CCIS) has compiled more than 6,000 individual companies from nearly 300 groups for *Business Groups in Taiwan*.   This directory has become the most complete source for business groups in Taiwan and has been widely used in

previous literatures (e.g., Luo & Chung, 2005; Khanna & Rivkin, 2001). For each

group, this directory contains not only the history of groups' growth but also various

financial analyses of group-affiliated firms. Fourth, I referred to *Tsai Hsun* (*Wealth*

Magazine) database which has periodical articles about large business groups in

Taiwan. Fifth, I surveyed biographies, corporate annual reports, and books that were

related to this topic.

SECTION 3.2. FINDINGS

The initial stage of post-acquisition: Identity conflicts and the paucity of contacts

Originally, Ba Co. was a member of Alpha Group.   Until 2000, Ba Co. did not increase the volume of production and its liabilities went up to $5 billion (U.S. dollars) (Hsu, 2000).   The leader of Alpha Group could not stand its continued losses, so he decided to sell it to the BETA Group.   When the boss of BETA Group announced the acquisition of Ba Co., he faced a wave of opposition which mainly came from BETA Co.'s labor union (Liu, 2002; Wong, 2002).   The blast showed the depth of worry among group members over negative effects of this acquisition, including not merely a financial burden on them but also a wide gap between the buyer and the target.   For example, Ba Co. had a bad reputation in the market because it was used to breach a contract to maximize its profits.   One executive noted:

When the market price went up, our boss [at that time] would request customers to raise the price.   If they (customers) insisted on buying our products with the same price noted on the contract, he would refuse to sell goods.   As for him (the boss of Ba Co.), our company did not violate the [transaction] contract because he did inform customers to raise the price before he refused to sell goods.

Conversely, BETA Group stood as a model group of trustworthy (Wu, 1997).   A vice president of one group-affiliated firm stated:

The year 2000 was a period of economic recession.   I [remembered that I] signed a contract to buy some raw materials from a supplier in Russia.   After a week, the exchange rate changed; the change went beyond my imagination.   Although I knew the deal would lead to a huge amount of losses, I still executed the contract.   At that time, I was in China.   I roamed around China for several months and did not have the courage to go home because I felt very sorry for my fellows.

The significant differences between the attitudes toward trustworthy of both sides just revealed the tip of the iceberg.   Table 3.3 summarized varied dimensions of identity and examples to show how Ba Co.'s actions were far away from or even contradicted BETA Group's actions.   Reminiscing about his reaction to the news of acquisition,

one senior manager of BETA Co. noted:

[For instance,] We could borrow funds from banks with extremely low interest rates.   Sometimes bankers actively [knocked our doors and] asked us whether we could borrow some money from them. They (those bankers) were not fools; they were willing to do so because of the name of our company. The name embroidered on here (our uniforms) and printed on [our] business cards represented trustworthiness.   They (the bankers) never have a doubt about whether our company would [follow the contract to] give the money back.   Me either.   [On the contrary,] Ba Co. was a firm to which bankers refused to lend the money.   I didn't understand why our boss would like to acquire such a company.

The example is illustrative of a serious problem that group members were confused and refused to accept a newcomer when they were aware that the newcomer did not conform to or contradict the salient part of their identities.   Those conflicting beliefs or actions gradually and imperceptibly drew a clear line between "us" and "them".

In the primary stage of post-acquisition, Ba Co. had few links with members of BETA Group.   One executive recalled: "We had no connections with group members. I knew our boss and the leader of the group were good friends.   Except friendships between them, we had very few, nearly no, links with the group headquarters or other members [in BETA Group]."   The paucity of contacts resulted in Ba Co. being viewed as anything but not a member of "us", because lack of a contact resulted in lack of a feeling of membership.   Besides, group members made sense of "what does Ba Co. stand for" by observing the portfolio of its partners.   One president of a group-affiliated firm told us:

Its boss (the boss of Ba Co.) came from Alpha Group.   Although the group headquarters (BETA Co.) assigned the boss and had a stake in it (Ba Co.), ownership could not represent membership; they (Ba Co.) still belonged to Alpha Group. … because it was still difficult for us to obtain some orders from Ba Co.   They (Ba Co.) still traded with those people (original suppliers) and they did not back me up as a family.

TABLE 3.3

Identity Conflicts between BETA Group and Ba Co.

Organizational Identity	Examples	
	BETA Group	Ba Co.
Trustworthy	Interview: "The year 2000 was a period of economic recession. I [remembered that I] signed a contract to buy some raw materials from a supplier in Russia. After a week, the exchange rate changed; the change went beyond my imagination. Although I knew the deal would lead to a huge amount of losses, I still executed the contract. At that time, I was in China. I roamed around China for several months and did not have the courage to go home because I felt very sorry for my fellows."	Interview: "When the market price went up, our boss [at that time] would request customers to raise the price. If they (customers) insisted on buying our products with the same price noted on the contract, he would refuse to sell goods. As for him (the boss of Ba Co.), our company did not violate the [transaction] contract because he did inform customers to raise the price before he refused to sell goods."
Aggressiveness	Interview: "[Previously,] I just did what the boss [of Alpha Group] asked us to do. He is always right. [Therefore,] technicians in Ba Co. were used to obey their superiors' commands. …[However, in BETA Co.,] managers were used to let subordinates make detailed plans. …[Thus,] when they came to Ba Co. and acted as top managers, there was a gap between us. They expected us to work out some plans, [but] I expected them to give some commands. So everything was pending."	
Institutionalization	Interview: "[Previously,] I (Ba Co.) did not have any rules such as SOP. Mill A had a SOP because of ISSO. Other departments such as our department (information and system department) did not have any documents or regulations for us to follow. …In BETA Co., each person was expected to obey different kind of rules." Interview: "In the past, I (Ba Co.) did not have the habit of doing paperwork. When I would like to buy something, …If I was in a bad mood, I just wrote the item on the paper and delivered it to purchasing department. If I was in a good mood, I would give a brief description."	
Respect for people	Interview: "In Alpha Group, our salary was just close to or below the line (the regulations). [Moreover,] woman's salary was less than man's salary about twenty to thirty percent. …As everyone knows, BETA Co. pays well (more than the request of labor law). Even though they (employees of BETA Co.) are on holiday, the company (BETA Co.) still pays."	
Flexibility	Interview: "According to the law, a person ascends a height more than 2 meters and there is no balustrade to protect him; he should wear a safety belt to prevent him from falling off. In Ba Co., everyone just obeyed the law. … BETA Co. is far away from what is normal. If you want to enter the mill, even though you just look around and walk on the ground, you should wear a safety belt, a safety helmet, and goggles. Everyone in the mill looks like a soldier of field forces. Too rigid!" Interview: "After our (Ba Co.) customers placed their orders on our products, they could receive our goods in four days. ...BETA Co.'s customers had to place their orders a month in advance."	

Moreover, infrequent interaction further confirmed those perceived identity conflicts in group members' minds and triggered real hostility between them and the newcomer. A vice president of Ba Co. in 2001 noted:

In 2001, we once asked Bf Co. (a group-affiliated firm) to buy some raw materials for us.   After that incident, the relationship [between our company and group affiliates] became more tense and hostile. … Bf Co. helped us to buy some raw materials.   These materials were already arrived, but we decided not to execute this contract because we did not want to pay the money.   The president of Bf Co. came to our company and intended to have a chat with our president.   Our president refused to meet him.   He (the president of Bf Co.) waited outside until our president asked me to treat him to lunch.   Then, he (the president of Bf Co.) told me that he hired some security guards to guard those raw materials at the main entrance for the sake of preventing people from taking those away.

On the other side, according to one manager, people in Ba Co. felt lost and lonely because they did not know who they are: "We were merged into the [BETA] group. … [However,] when we read the newspaper, we were informed [that] they did not welcome us.   We should be one of them but we felt lonely.   Some people among us preferred to believe [that] we were still a member of Alpha Group."   The awareness of enmity from the other side prompted people in Ba Co. to maintain original working styles, to interact with partners who they were used to get along with, and to be hostile to anyone from BETA Group.   As one executive mentioned:" I once tried to recommend Bd Co. (a group-affiliated firm) as our supplier who [took the responsibility to] maintain our production machines.   [Then,] I faced opposition [coming from] all directions. … When their (Bd Co.) employees made some mistakes, some of us would put "disqualify" tag on them."

My interview data clearly indicate conflicts between two parties' identities. Those perceived identity conflicts deteriorate into real hostility between conflicting parties when one party found the other party's actions did not conform to or even violated a main and long-lasting part of their identity, and when one party did not have the opportunity to or refused to interact with the other party to understand the

thought behind negative stereotypes and negative attitudes towards them.

Interaction 1: Using friendships to bridge conflicting parties

Although there was an atmosphere of great hostility and tension in the BETA Group, a desire of change gradually arose.   This transition originated in Ba Co.'s production division.   The vice president of production division, who was dispatched by BETA Co. in the early stage of acquisition, intended to break the deadlock and build friendships between his subordinates in Ba Co. and his friends who were the department heads in the group headquarters.   A general superintendent in Ba Co. recalled:

In the beginning, he (the vice president, production division) accompanied me (the general superintendent, C. department) to visit the assistant general superintendent [C. department] and some managers in BETA Co.   He (the vice president) helped us to know each other.   They (the assistant general superintendent and managers in BETA Co.) promised that they would give us technical support when we sought advice on technical operations. … [Afterwards,] we once received a number of complaints from customers about poor product quality, because we did not know how to smooth the oil on our products.   I called him (the assistant general superintendent) and asked for his help.   [Then,] he sent an expert to tell us the crux of the problem.

However, until 2003, such technical exchange happened on occasion, not an enduring relationship.   In addition, the boundary of interaction between two firms was limited in production division.

In 2003, the vice president was promoted to president and initiated a period of transition.   As figure 3.1 displayed, this promotion led to a dramatic improvement in Ba Co.'s status in top managers' friendship network.   Apparently, Ba Co. moved from the periphery to the center.   Although Ba Co. still performed the role of an isolator in formal contacts such as transaction relationships, it did reach an enviable position in informal top executives' contacts.   Figure 3.1 validated the president's argument: "I have some good friends (who are top management of group-affiliated

firms) in the group.   I used these links to get them (people in the BETA Group) [to be]

willing to have informal interaction with my fellows (employees of Ba Co.), such as

providing some information about how to operate machines well."   The fact that,

while there was hostility between two parties, the president began to exploit

friendship to bridge them.   He tried to get his friends (top executives in BETA Group)

on his side and create their willingness to give Ba Co. some support or interact with

people in Ba Co.   Furthermore, building on friendships between top management, he

attempted to build friendships between employees of both sides.   As one executive

put it: " Mr. Peng came to our mill and taught us how to modify the shape of sheet

mental.   Although he was a technician in BETA Co., we still learned a lot from

him. …He was sent by his superior (who was an old friend of the president of Ba Co.)

in the beginning.   We became brothers now."

On the other side, the president added incentives for people in Ba Co. to interact

with people in BETA Group.   As explained above, Ba Co. was encumbered by low

output.   Conversely, BETA Co. (the group headquarters) was recognized as a center

of excellence in scaling up production; its volume of production has exceeded

designed capacity by 40%.   Obviously, BETA Co. was able to provide a satisfactory

solution to this problem.   Therefore, the president invited 3 technicians and 1

low-level manager in the group headquarters to Ba Co., acting as consultants, and let

them get along with technicians all day long.   As time went on they were more and

more familiar with each other.   One consultant in 2003 told us:

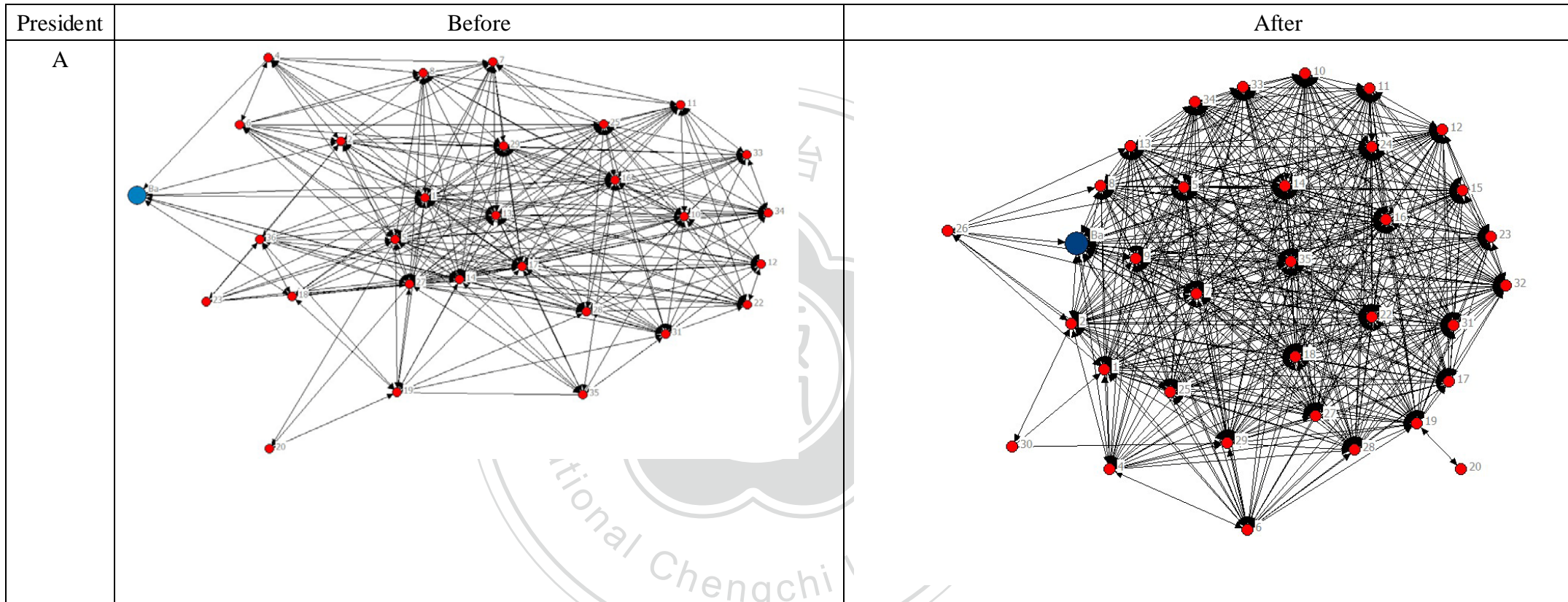| President	Before	After
A		

FIGURE 3.1: Top Managers' Friendship Network (to be continued)
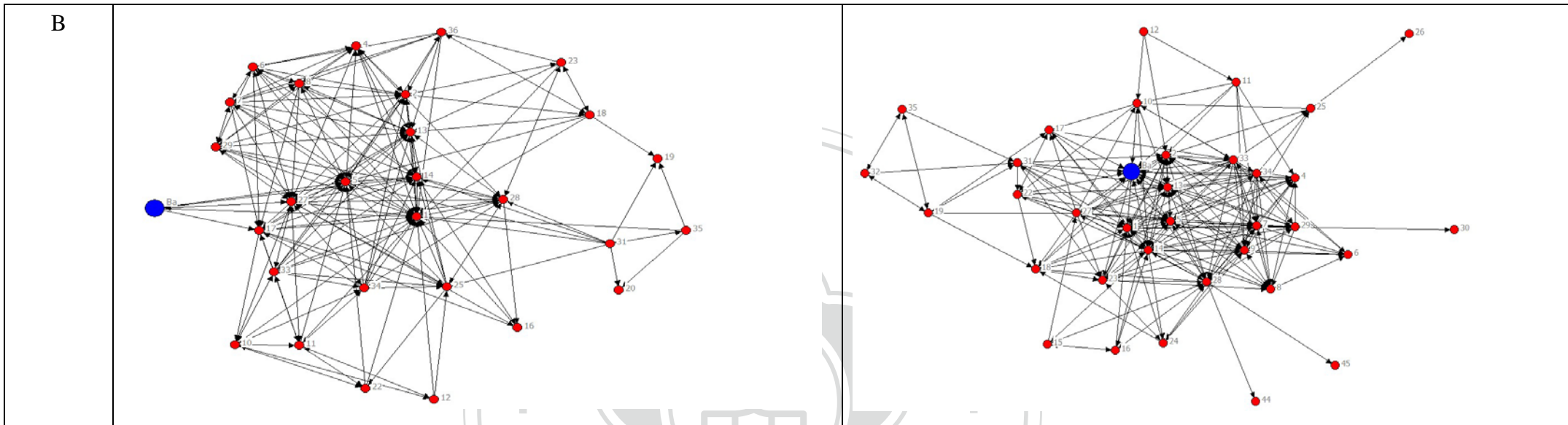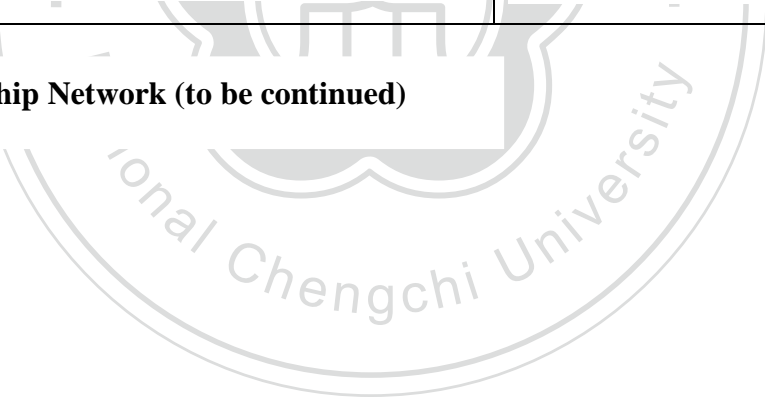
B

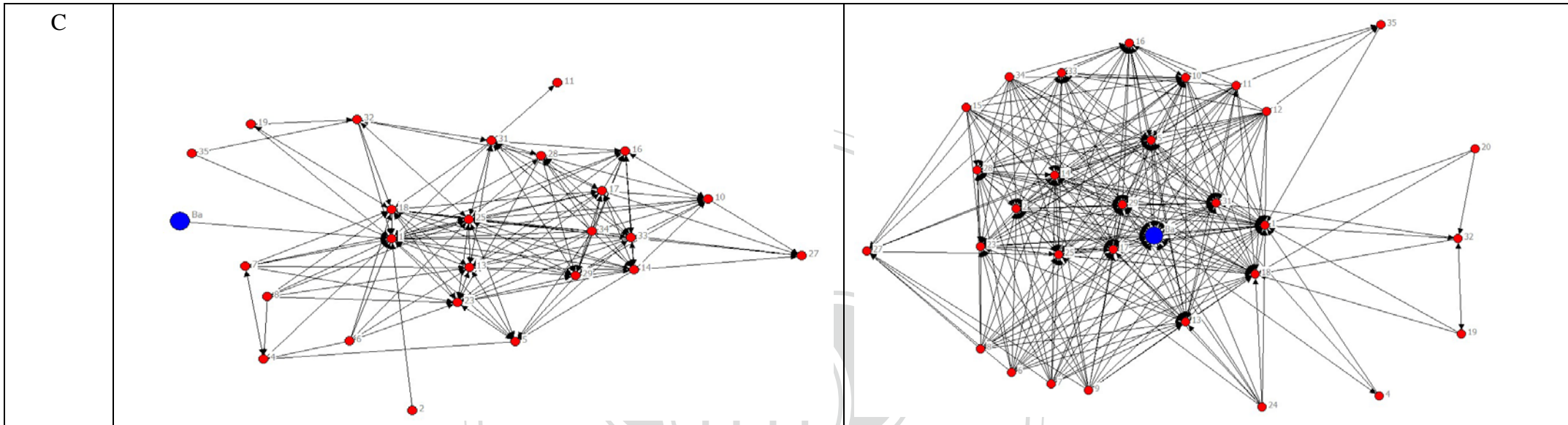**FIGURE 3.1: Top Managers' Friendship Network (to be continued)**

C

FIGURE 3.1: Top Managers' Friendship Network

In the early days, people from BETA Co. [,who came to Ba Co.,] were high up in the management hierarchy.   No one discussed technique with employees who were at the bottom of the hierarchy.   We were the first batch of technicians. … [In the beginning,] we were viewed as intimates of the king [, because we were invited by the president]. …[Later,] there was a typhoon [which] devastated the mill; a nearby river flooded it.   Machines were submerged by flood water.   We never knew our mill was so fragile; the roof of the factory was lifted up by the typhoon.   In that day, we didn't go home and didn't eat dinner.   We stayed with them (employees of Ba Co.) to make urgent repairs all night….We took the lead to tighten canvases in order to block the wind….After the typhoon, we wrote many ideas to rebuild the mill.   For instance, we made a firm typhoon-proof door [which is] more solid than [that of] BETA Co….[Afterwards,] they (employees of Ba Co.) gradually regarded us as brothers in adversity.

Additionally, these consultants progressively put BETA Group's mind into practice. One deputy general manager stated:

Before they (four consultants) joined us, we just sat there and watched the change at top management level.   We never deeply realized that one day we had to work with someone from BETA Co. and we would change daily routines…[For example,] operation rate is an indicator to show whether machines malfunction.   The denominator is the hours [that] machines should be in operation.   The numerator is the hours [that] represent line stop.   In the past, we just calculated it (operation rate), but we did not track down a cause of malfunctions. …They (consultants) paid much attention on it. … In the daily meeting, this issue (line stop) was discussed in more detail.   We had to learn to list possible solutions and continually checked it.

In the next year, Ba Co. successfully broke through in the fight against production bottleneck.   The designed capacity is 2.4 million tons.   Ba Co. enhanced the volume of production from 1.98 million tons in 2000 (the time of acquisition) to 2.53 million tons in 2004.   Moreover, the volume of production has rocketed continually.   One employee said:" I never dreamed that we would be able to go beyond the designed capacity."

Thus, in an era in which two parties refused to interact with each other because the negation of the salient part of the opposite side's identity classified them into different groups, the president of Ba Co. tried to find ways to bridge them.   On the one hand, he used his connections to create group members' willingness to interact with people in Ba Co.   On the other hand, he began with the part, which was the

group headquarters' specialty but Ba Co. could not overcome, to create his subordinates' willingness to interact with group members.   Building on informal links, technicians and managers in Ba Co. progressively learned some working practices or basic concepts from people who came from the group headquarters.

Identity 2: A shift in perceptions and usual practices

As for members of Ba Co., thanks to the guidance provided by individuals from the group headquarters, they were able to progressively overcome all the obstacles in the area of production, which had been placed in their path.   As the production efficiency was beginning to improve and they were more acquainted with individuals from the other side, technicians and managers in Ba Co. gradually relaxed their hostile attitudes to BETA Group and were willing to adopt relatively open minds to some practices and ideas which their friends, who belonged to the BETA Group, poured into their knowledge pool.   As one executive noted,

In the past, we did not need to record the current status of our machines and a history of maintenance. The experience of machine maintenance was stored in maintenance workers' minds. … [Afterwards,] they (technicians from BETA Co.) implanted a sense of EAM (a machine management system developed by BETA Co.) in our minds.   We [learnt how to] code each machine separately and keep track of it.

Furthermore, as a vice president stated," via internal rotation and an exchange of visits, such production-related practices, [which the group headquarters instilled into the central mill of Ba Co.], were diffused and adopted by other mills."   This shows that social interaction served as a catalyst for change.   People in Ba Co. gradually accepted professional knowledge transferred from the group headquarters, adjusted their daily production-related routines, and redefined their own attitudes to the group.

As for members of BETA Co., after interacting with the opposite side, they dispelled prejudice against Ba Co. because Ba Co.'s steady improvement in

production performance and its shift in working styles gradually changed their minds and diminished negative stereotypes.   As one supervisor noted:

The production in my mill is large in scale.   We use seconds to calculate the volume of production. In BETA Co., it only took 120 seconds to produce a product. …[In 2000,] we need more than 200 seconds to produce a product.   After four consultants came [to our company], production rate [in my mill] was 160 seconds. …[Subsequently,] we ever invited the heads of BETA Co.'s labor union to visit our mill.   They really appreciated our improvements.

Through social interaction, although conflicting parties did not change a large part of their identities or completely extricate themselves from an identity conflict trap yet, they did attempt to view one another as anything but the enemy.   On one side, Ba Co. attempted to appreciate the opposite party's merits and imitate the other side's good practices, especially in production area.   The opposite side, the group headquarters, attempted to appreciate the transition in Ba Co., even though it did not extend to the whole company.

Interaction 2: Cutting off links with Alpha Group and expanding the boundary of connections within BETA Group

As suggested above, social interactions motivated members in Ba Co. to review usual practices whether they were outmoded or improper and to rethink what they believe defined the organization.   The movement towards a new definition of who they are initiated a set of events that changed this picture dramatically.   First, Ba Co. adjusted a portfolio of its partners.   Ba Co. cut off links with Alpha Group to signify that it decided to abandon its outdated thoughts, practices, and images.   At the same time, it built links with members in BETA Group who could help it explore possible self.   This partner selection decision represents a significant departure from previous policy.   As the president noted: "After the acquisition, our computer system still connected to the Alpha Group…. I decided to cut this connection to prevent them

from having our information in hand.　[Besides,] I would like to send a signal that we completely broke away from Alpha group."　Subsequently, Ba Co. signed a contract with Bh Co. (a group-affiliated firm) which specialized in setting up information system such as Enterprise Resource Planning (ERP).　The president stated:

Originally, Bh Co. was a section of technology division of BETA Co. (the group headquarters).　[In the past,] BETA Co. drew ERP into the group and implanted its management policy, thoughts, and practices in it.　After several years, this section was spun off into a separate company, Bh Co.　The experience of setting up ERP and the management thoughts and practices implanted in this system became the core competence of Bh Co… We decided to invite it (Bh Co.) to set up ERP.　This decision represented [that] we also accepted those management thoughts [which were developed by the group headquarters].

One executive illustrated the influence of ERP:

In the past, we did not have the habit of doing paperwork.　When I would like to buy something, …If I was in a bad mood, I just wrote the item on the paper and delivered it to purchasing department.　If I was in a good mood, I would give a brief description. …[After the launch of ERP,] I had to fill in a form on-line if I wanted to take a day off.　If I would like to buy spare parts, I had to fill out an application form, including the provider, the item, the quantity, the reason, the application date, etc. … [Gradually,] we got used to it (ERP); everything has been well documented.

Apparently, partner selection acted as a trigger for a series of changes in Ba Co.'s usual practices which became progressively more consistent with those of BETA Group.

Second, figure 3.2 displayed the evolution of Ba Co.'s transaction network. The dynamics of ego network change clearly indicated that Ba Co. actively and extensively built formal relationships with group members.　This connection transition fully reflected Ba Co.'s attitudinal change and determination to adjust its partner portfolio for the sake of creating the feelings of membership and seeking appropriate and expected behavior which may give Ba Co. a new self-definition. Furthermore, the arrows in figure 3.2 showed that sister affiliates could sell products

and services to Ba Co.　As the president stated," My principle was very clear.　We would like to build enduring relationships with group affiliates.　I also transmitted this message to my subordinates.　Therefore, if the price range was reasonable, I would choose group members as our providers."　Gradually, group members were aware that they could obtain strong support from Ba Co.　As one president of a group-affiliated firm noted: " When I were in financial straits, Ba Co. placed an order for our products to back me up.　This order touched us all deeply.　It gave me more support than the group headquarters did."　The strategy of building extensive connections with sister affiliates helped Ba Co. to show its attitudinal change, to win sister affiliates' gratitude, and to push them to reconsider what this newcomer stands for.

Third, by signing a technical exchange contract, Ba Co. further established formal and frequent contact with the group headquarters, not merely informal friendships and infrequent relations as before.　Moreover, Ba Co. expanded the scope of contact, covering different functional areas in BETA Co., not merely the production division.　As one general superintendent put it:

We contracted with T division (the technology division of BETA Co.) to transfer technical knowledge to us…. [The function of] T division seems like a hub.　When we came to them for advice or expertise, they would send individuals from varied functions or mills to us. …[For instance,] they sent people from T to help us develop oil drums.　Technicians from W6 taught us how to maintain our machines in good condition.　Brothers from Y5 gave advice on the improvement on product quality.

Such formal and frequent contact channeled not only technical knowledge but also non-technical ideas (such as shared values) into Ba Co.　Ba Co. was able to reconstruct who they are with these new elements.
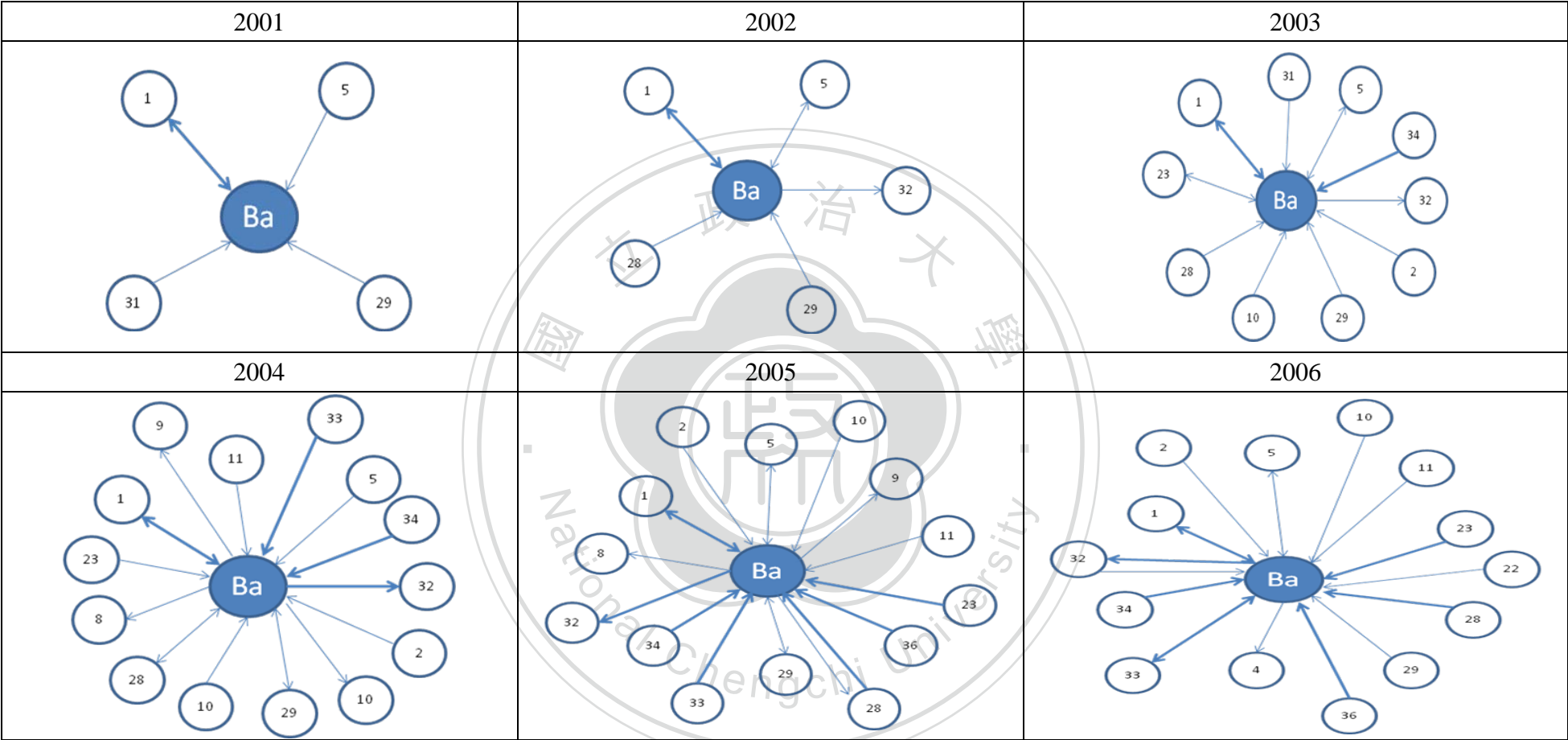
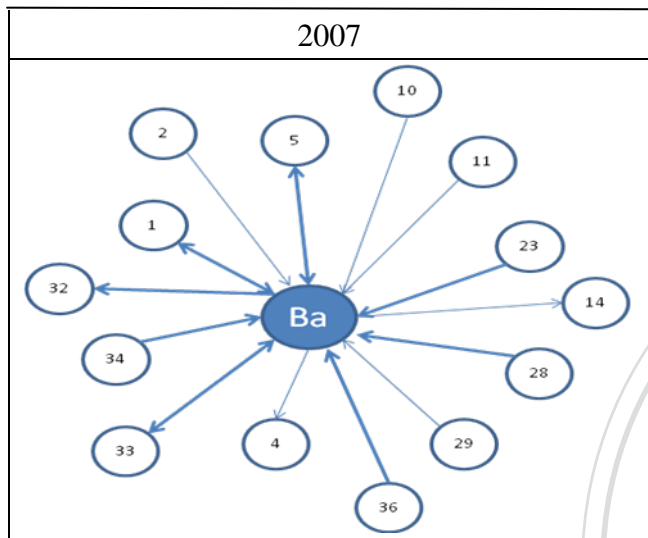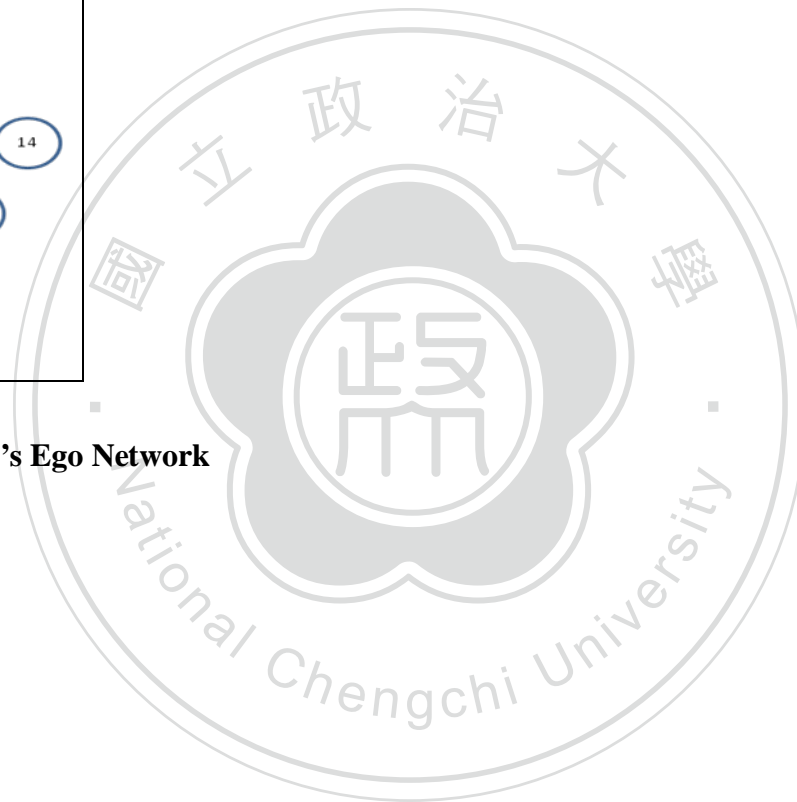**FIGURE 3.2: The Evolution of Ba Co.'s Ego Network (to be continued)**

FIGURE 3.2: The Evolution of Ba Co.'s Ego Network

As we mentioned before, in identity 2, informal contact gave Ba Co. an opportunity to make a comparison of production-related practices between both sides, to learn from the group headquarters, and to further change its attitude towards BETA Group.   Clearly, informal contact breeds attitudinal change.   Such attitudinal change further initiated a series of shifts in the combination of connections via partner selection.   First, departing from a prior way of choosing partners, Ba Co. cut off links with original partners such as Alpha Group to abandon outdated images but, meanwhile, built the links with BETA Group affiliates to explore new and possible self-definitions.   The choice pushed Ba Co. to step forward on the way of changing thoughts and practices which gradually conformed to those of BETA Group.   Second, Ba Co. established extensive relations with sister affiliates.   On the one hand, it won other affiliates gratitude and affection.   On the other hand, it pushed other affiliates to rethink what this newcomer represents.   Third, Ba Co. built more formal and diversified connections with the group headquarters.   On the one hand, staffs had more opportunities to interact with or learn from individuals coming from varied functional areas or mills in the group headquarters.   On the other hand, the group headquarters progressively and imperceptibly instilled shared values or common characteristics in Ba Co.

Identity 3: Co-evolving similar characters and exploring distinctive characters

When the group headquarters attempted to pour new elements (shared values and common characteristics) into Ba Co.'s identities, Ba Co. experienced a suffering period.   For example, in the past, there were few rules for Ba Co.'s staffs to follow. Under the circumstances, the purchasing department grasped great power because all purchases should route through it and few rules could regulate it.   One consultant from the group headquarters recalled:

In an evening, we needed to rent a crane to fix a machine. It was an emergency. I requested the general superintendent [of this mill] to telephone the crane company. He said: "Wait a moment. I needed to call the purchasing manager first to gain his permission." … I was very surprised [that] a general superintendent (a higher position in the hierarchy) should report to a purchasing manager (a lower position in this hierarchy). It never happened in BETA Co.

On the contrary, in BETA Group, individuals were expected to adhere strictly to the rules. A statement from one manager illustrated the differences between two groups:

[In the past,] the purchasing department [in Ba Co.] always bought something different from what I suggested; they (staffs in purchasing department) bought it because it was cheaper. [However,] I got annoyed when I used it….I ever told them my feelings when I got something which was against my expectations. They replied:" You never used it before. How do you know [that] it must be a troublesome item?" … In BETA Group, [under the purchasing regulations,] although I needed to fill out a form on-line, purchasing department mostly adopted my suggestions and bought what I desired.

Through social interaction, technicians and managers in Ba Co. had the opportunity to know BETA Group's practices and thoughts, to make a comparison, and to realize that they needed to make some changes. One executive who tried to reform the purchasing system told us:

Previously, when we bought an unsuitable machine, no one had to take the responsibility. As for us (people in production division), purchasing department did not follow our suggestions so it was not our fault. As for them (staffs in purchasing department), they never worked in the mill so they did not know it was an unsuitable machine….In BETA Co., there was a very clear policy. [First,] each mill had the authority to outsource some work to some cooperative providers directly. Second, if they (people in the mill) would like to buy something which they could design and domestic manufacturers could follow the composition to produce it. W6 (the central maintenance shop) would deliver the draft to appropriate manufacturers. Third, if they would like to buy something such as a gear wheel which should be bought from foreign companies, the purchasing division would do it….[Obviously,] we also needed a clear rule [to terminate this chaos]. I attempted to propose changes to the purchasing system in management meetings… The initial reaction of the purchasing manager was "This company does not need the purchasing department any more. The purchasing department can be cancelled now!"

To start with, Ba Co. contracted with some BETA Co.'s cooperative providers. According to the contract, Ba Co. could follow the example of BETA Co.; namely,

each mill had the power to place outsourcing orders directly, rather than routing through the purchasing division.   At the same time, to avoid encountering stiff resistance from purchasing department, production executives invited purchasing managers to involve in the provider selection process.   After a period of negotiation, Ba Co. finally achieved the goal of setting up a purchasing rule.   This story showed how social interaction pushed Ba Co. to make a comparison, to rethink whether its beliefs or practices were outmoded, and to move toward an example, BETA Co. Table 3.4 lists identity shifts which revealed the similarity between two parties' identities was mounting.

Apparently, social interaction pushed Ba Co. to change its beliefs, behaviors, and self-definitions.   As one manager stated:

In the past, our employees wore uniforms in a very casual way.   One side of a shirt was under the pants but the other side of a shirt was pulled out.   Meanwhile, they just rolled up a sleeve.   The uniform was very dirty.   When you saw the way they were dressed, you had a tendency to lose your temper.   They looked like poor labors. …Nowadays, they would watch the way they were dressed spontaneously.   When they got off duty, they would dress neatly before they rode motorcycles.

On the other hand, outsiders also changed their attitudes towards Ba Co. at the same time.   For instance, in 2005, bankers agreed to cancel the basic credit line to show their attitudinal changes and trust.   Since 2004, Ba Co. has allowed professors to conduct annual customer satisfaction survey.   Table 3.6 lists seven major parts of the survey, including sales, prices, product quality, customer services, the channel of communication, the punctuality of delivery, and the quality of transportation.   The survey clearly revealed that Ba Co. had undergone an amazing metamorphosis. Those qualitative changes helped Ba Co. to win BETA Group's recognition and willingness to build stronger and multiple relations with it.   As one vice president of Ba Co. noted:" BETA Co.[, which refused to accept Ba Co. as a group member at the time of acquisition,] asked us to help it roll sheets (one of BETA Co.'s major

TABLE 3.4

Co-evolution

Organizational Identity	Examples	
	Changes in BETA Group	Changes in Ba Co.
Trustworthy	-	Interview: "In 2005 I made a loss of more than 5 billion dollars because I made a mistake in forecasting the movement of international market price. I [executed a contract; in accordance with this contract I had to] pay an extremely high price for a batch of raw materials."
Aggressiveness	-	Archival: To corroborate informants' accounts, the data (covering the period 2001-2007) concerning proposals for improvement, which were submitted by employees, was collected from all three mills and the technology department. Table 3.5 displayed that employees were more active in finding problems and proposing some possible solutions. They no longer sit passively to wait for commands from their superiors.
Institutionalization	-	Archival: I calculated the total number of regulations in each year. Ba Co. established 0 rules in 2001, 2 rules in 2002, 5 rules in 2003, 5 rules in 2004, 4 rules in 2005, 11 rules in 2006, and 6 rules in 2007. Those regulations include different functional areas. Apparently, Ba Co. instituted a number of changes and was gradually close to BETA Group's behavior in this dimension.
Respect for people	-	Interview: "I have a practice of having all the staff members together on Lunar New Year's Day to express their greetings. This year, in this occasion, a representative of employees told us [that] she was very happy because her salary was higher than her husband's salary and she could enjoy a better welfare. So, in her family, she is the master now. Her husband has to do all housework now." Archival: I also collected the data (which spans 3 years, 2005-2007) concerning the amount of welfare funds to show this change, which is displayed in Figure 3.3.
Flexibility	Interview: "I always take a long time to do evaluations. …In this year, our superiors add "speed" into our company's objectives." Archival (Economic Daily News, 2007): "BETA Co. expresses that they have an intention to adjust sales cycle from a quarter to a month in order to respond to environmental contingencies quickly…"	-

TABLE 3.5

The Total Number of Proposals for Improvement (2001-2007)

Year	Mill A	Mill B	Mill C	Technology Department	Total
2001	405	488	84	0	977
2002	315	794	173	0	1282
2003	255	825	211	0	1291
2004	481	650	213	0	1344
2005	908	676	148	9	1741
2006	1071	825	207	85	2188
2007	1525	788	267	134	2714

Notes:

1. Those proposals, which we listed above, were accepted and adopted.   We did not include proposals which were not adopted.

2. The Technology Department was established in 2005.7.1.
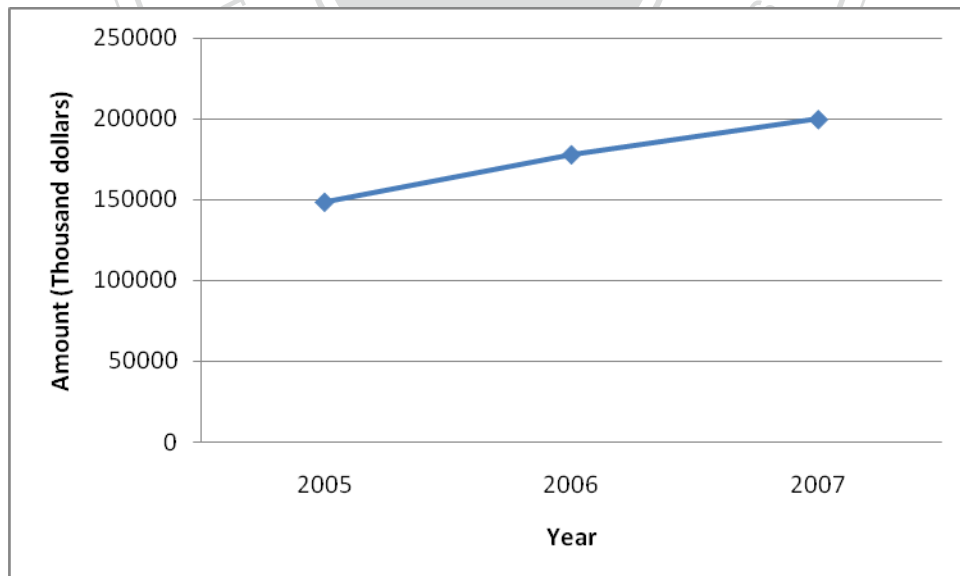
FIGURE 3.3: The Amount of Welfare Funds

TABLE 3.6

Customers' Perceptions Changes in Ba Co.

Mill A

Customer satisfaction (Improvements over years)	2005 compared to 2004	2006 compared to 2005	2007 compared to 2006
1.Sales	14 %	33 %	45 %
2.Price	14 %	26 %	24 %
3.Product quality	16 %	37 %	32 %
4.Customer services	29 %	44 %	48 %
5.Channel of communication	21 %	38 %	48 %
6.Punctuality of delivery	29 %	39 %	53 %
7.Quality of transportation	29 %	29 %	31 %

Mill B

Customer satisfaction (Improvements over years)	2005 compared to 2004	2006 compared to 2005	2007 compared to 2006
1.Sales	29 %	32 %	45 %
2.Price	22 %	15 %	24 %
3.Product quality	25 %	30 %	43 %
4.Customer services	27 %	35 %	47 %
5.Channel of communication	24 %	30 %	36 %
6.Punctuality of delivery	33 %	36 %	44 %
7.Quality of transportation	24 %	33 %	31 %

Mill C

Customer satisfaction (Improvements over years)	2005 compared to 2004	2006 compared to 2005	2007 compared to 2006
1.Sales	20 %	23 %	27 %
2.Price	40 %	9 %	27 %
3.Product quality	20 %	8 %	15 %
4.Customer services	20 %	8 %	29 %
5.Channel of communication	20 %	27 %	20 %
6.Punctuality of delivery	11 %	8 %	45 %
7.Quality of transportation	11 %	0 %	29 %

products).   This order represented [that] we had multiple relationships, not merely single relationship (technical exchange).   [Moreover,] our relationships went from unidirectional to reciprocal."   These examples suggest that social interaction allowed Ba Co. to change its perception of BETA Group, to compare with and imitate BETA Group, and to reconstruct its self-definition.   Meanwhile, the other side, BETA Group, also shifted its perception and changed its behaviors, from isolating Ba Co. to putting its trust in Ba Co.   Therefore, two parties influence each other reciprocally and simultaneously.   Social interactions allow different parties in the network to compare with and learn from each other, to modify their own beliefs and self-definitions, and, at the same time, to change others' beliefs and attitudes towards them.

Although social interaction triggered a desire to imitate and assimilate into BETA Group, social interaction also let Ba Co. realize that BETA Group was not flawless.   Namely, Ba Co. had some characteristics which compared favorably with those of BETA Group and were worthy of preservation.   For example, Ba Co. was more flexible than BETA Group.   One executive in Ba Co. stated: "After our customers placed their orders on our products, they could receive our goods in four days. ...BETA Co.'s customers had to place their orders a month in advance."   One manager in BETA Co. gave me an example of differences between two sides:

According to the law, a person ascends a height more than 2 meters and there is no balustrade to protect him; he should wear a safety belt to prevent him from falling off.   In Ba Co., everyone just obeyed the law. … BETA Co. is far away from what is normal.   If you want to enter the mill, even though you just look around and walk on the ground, you should wear a safety belt, a safety helmet, and goggles. Everyone in the mill looks like a soldier of field forces.   Too rigid!"

Through interactions with each other, Ba Co. imitated BETA Group; at the same time, BETA Group also learnt from Ba Co.   As one executive told me:

In the beginning, BETA Co. refused to use any machine provided by Chinese producers and never gave it a chance to be on trial. Previously, in our mill, there was a roller which has been on trial for six months. It functioned quite well. They (technicians and managers in the group headquarters) visited our mill and asked us some questions about this roller. After a period of time, they decided to buy the same roller [which was a major manufacturing machine in the production line], even though it was made in China.

Moreover, the group headquarters explored some Ba Co.'s hidden characteristics which Ba Co. did not notice before. One general superintendent stated:" Individuals from BETA Co. acclaimed us as zealous learners, because we insisted on probing to the bottom of a technology when we desired to know it." Consequently, stable and frequent connections offered a venue for mutually exploring hidden but good characters. Those latent elements would not threaten the relationships because this exploration was based on mutual positive affection.

Up to this point we have shown that partner selection not only revealed a shift in focal party's perceptions but also embarked on a journey to seek possible self. In this process, connections with partners (who may help focal party to redefine who they are) offered the focal party an opportunity to filter outdated beliefs or practices via comparison, to learn from partners, and to reconstruct its self-definitions. However, at the same time, chosen partners also modified their perceptions of focal party and implanted some characteristics from focal party into them. Although this journey started from a desire that focal party would like to look for a possible self-definition, the interplay between focal party and chosen partners turned this journey into a co-evolution process. In another word, while connections gave focal party a chance to imitate partners and redefine itself, connections also gave chosen partners a chance to learn from focal party and redefine themselves. Apparently, both sides went through a period of mutual adjustment. Similarities between two groups' identities were gradually increasing.

Nevertheless, social interaction not only strengthened similarities but also highlighted distinctiveness. Through comparison, focal party may realize that some elements were worthy of preservation and further turned those into its distinctive characters. Furthermore, sometimes, they may have serendipitous findings, unexplored essence. These serendipitous findings not only would not threaten relationships but also may become distinguishing essence of this organization.

Interaction 3: Passively connected by group members and gradually being a relatively central actor

Experiencing a process of adjusting perceptions and attitudes towards Ba Co., group members were more willing to build enduring and multiple relations with Ba Co. Figure 3.2 (which we showed above) displayed that Ba Co. progressively strengthened its connections with BETA Group by signing long-term transaction contracts. This connection transition reflected that Ba Co. has an intention to deepen its relations with group members. Another deeper meaning was that group members were aware that there were similarities between their and Ba Co.'s identities; this awareness prompted group members to gradually recognize Ba Co. as a member and glad to be its permanent partners. As we discussed before, if Ba Co.'s actions did not consistent with or violate a major part of group members' identities, temporary relations would not successfully turn into lasting relations as Ba Co. desired. Namely, these enduring relationships between two parties represented that group members sent a signal to show an awareness of similarities between two parties, a change in how they make sense of this newcomer, and a growing recognition of its membership.

While similarities act as a catalyst for building enduring relationships, distinctiveness act as a catalyst which attracts group members to actively build

connections with the focal party, Ba Co. In another word, although similar characters breed familiarity and acceptance, distinctive characters draw other actors' attentions and trigger their desires to learn from or make a friend with the focal actor. Our interview data showed different kind of ways (which was listed in Table 3.7) that Ba Co. set distinguished parts of it identities. These distinguished characters helped Ba Co. to become a role model within the group, to add incentives for group members to voluntarily build links with it, and to gradually reach a relatively central position.

Now, let us switch our focus from Ba Co.'s ego network to the whole network. Figure 3.4 (the evolution of transaction network within group) clearly shows that Ba Co. moved from the periphery to the center in 2003-2007. However, Ba Co. could successfully reach a relatively central position not simply because it actively connected with group members. There are two deeper meanings to illustrate this network evolution. On the one hand, similarities between two parties' identities helped Ba Co. to gradually win group members' recognition and acceptance which changed this picture dramatically. As we mentioned before, similarities between conflicting parties' identities imperceptibly muddled the line between "us" and "them" and create the willingness to build enduring and multiple relations. On the other hand, distinguished identities added incentives for group members to actively connect with Ba Co. for the sake of transferring experiences or asking for advices from it. It is clear that Ba Co. gained the central position in a way which never came into my mind before. Co-evolving with partners and developing similar characters not only help conflicting parties successfully extricate from an identity conflict trap, but also let the focal party win others' recognition which prolongs the relationships. Exploring distinctive characters or pouring some distinguished elements into identities push potential partners to actively build connections with the focal actor.

TABLE 3.7

Ba Co.'s Distinctive Identities (to be continued)

Distinctiveness	Meaning	Examples
Better than HQ	1. Specialty: Ba Co. has positive distinctiveness which does not belong to HQ.	For example: flexibility in sales. Interview: "Our (Ba Co.) sales cycle is a month.　[In another word,] I set product price every month and our customers place their orders every month.　This sales strategy is more flexible, because I can adjust our prices according to the international market price and our customers can adjust the quantity according to their demand. …In BETA Co., the sales cycle is a quarter. …[So] I act as a weathervane.　They (BETA Co.) can refer to us."
	2. Better than HQ: Common characteristics, but Ba Co. implements them more thoroughly.	Interview: "Promoting social welfare is one of our group's objectives. …I focused on two dimensions; one is life and the other is education.　The life dimension is taking care of poor people or maimed people. For example, I made a donation to charity, invited them to join our tours, and bought an ambulance, etc. …The education dimension is helping students or donating money to education institutions such as junior high schools in the neighborhood. …I also shared our experiences in the group-level meeting.　I were acclaimed and some group members began to imitate us." Archival (Newspapers, 2007): "Since 2004, Ba Co. donated 1 million dollars every year to help children from poor families to go to school.　Yesterday, the boss of Ba Co. represented Ba Co. to donate 1 million dollars to this program again.　The county head stood for XXX county to accept this donation. …In this year, BETA Co. began to donate 5 million dollars to this program."
Role Model	1. Sister affiliates learn from Ba Co. directly.	Interview: "I have a regular meeting with Bm Co. because they are our customer. …In this meeting, they also ask us some questions not in the scope of business. …[For example,] they ask us how to implement ERP successfully.　Last year (2006), they sent some technicians to our company and learned from us." Self-report data: Bm Co. validated the above argument in the self-report data.
	2. Ba Co. is the first implementer. Then, HQ learns from Ba Co. and share Ba Co.'s experiences with other group affiliates.	Interview: "The ministry of economic affairs requested BETA Co. to be the first implementer and set an example of economizing on energy.　[Unfortunately,] W5(the utility department of BETA Co.) faced many difficulties from other departments [when it undertook this program]. …BETA Co. has more than ten boilers.　I just have one boiler. …I told W5 [that] I were willing to be the first implementer.　They were very happy. …Now, BETA Co. shared our experiences with other group affiliates and its customers. Several months ago, Bx Co. came to BETA Co. for advices on how to economize energy.　BETA Co. told them that they could ask us. …In this June, the general superintendent (of Bx Co.) came to our company and discussed this with us.

TABLE 3.7

Ba Co.'s Distinctive Identities

Distinctiveness	Meaning	Examples
Distinctive Role	1. Ba Co. uses its extensive ties to impress different actors in the networks and establish an image that other actors can come to it for suggestions.	Interview (the president): "Uniforms and gifts belong to a business item of Bz Co. (a group-affiliated firm). They (Bz Co.) are a very small company which struggles to survive. …In a meeting, he (the president of Bz Co.) sat beside me. …We had a chat. He told me his difficulties. I decided to help him. … This uniform was made by it (Bz Co.) and those gifts, which we granted to employees in our sports meet, were also designed by them (staffs in Bz Co.). …The product quality was good. …[Later,] I shared my experience with friends [who were presidents or bosses of group-affiliated firms]. Now, Bz Co. sells uniforms and gifts to many group members. He (the president of Bz Co.) told me that he was thankful for me to distribute good words." Interview (the vice president, administration division): "We bought broadcast system from Bw Co. We were the first user in the group. …Last year, Bv Co. began to build a new mill. … They asked me whether they could visit our mill and knew whether the broadcast system performed a useful function, because they would like to buy the same system."
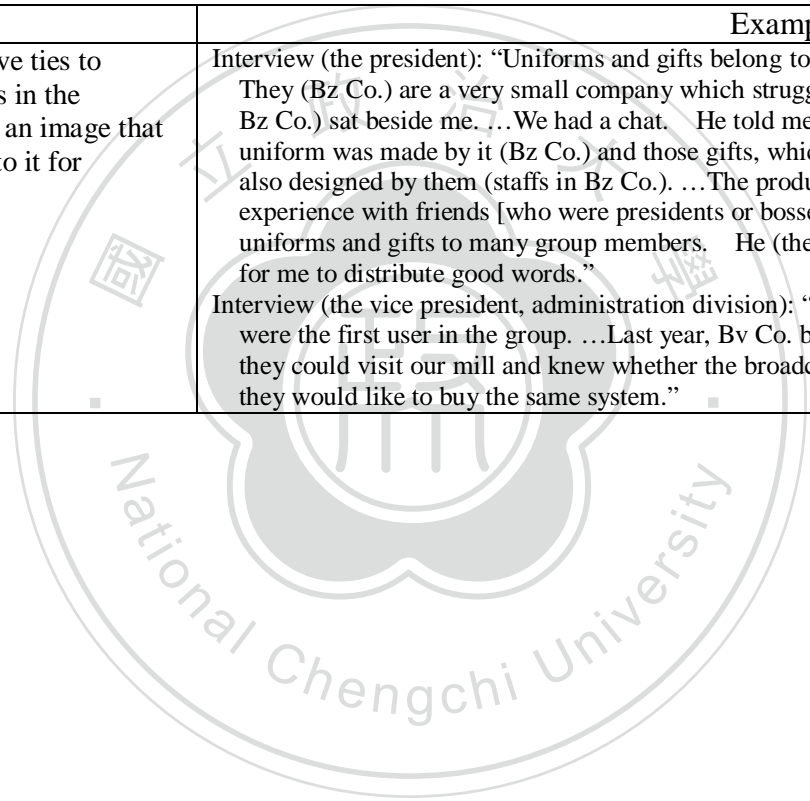
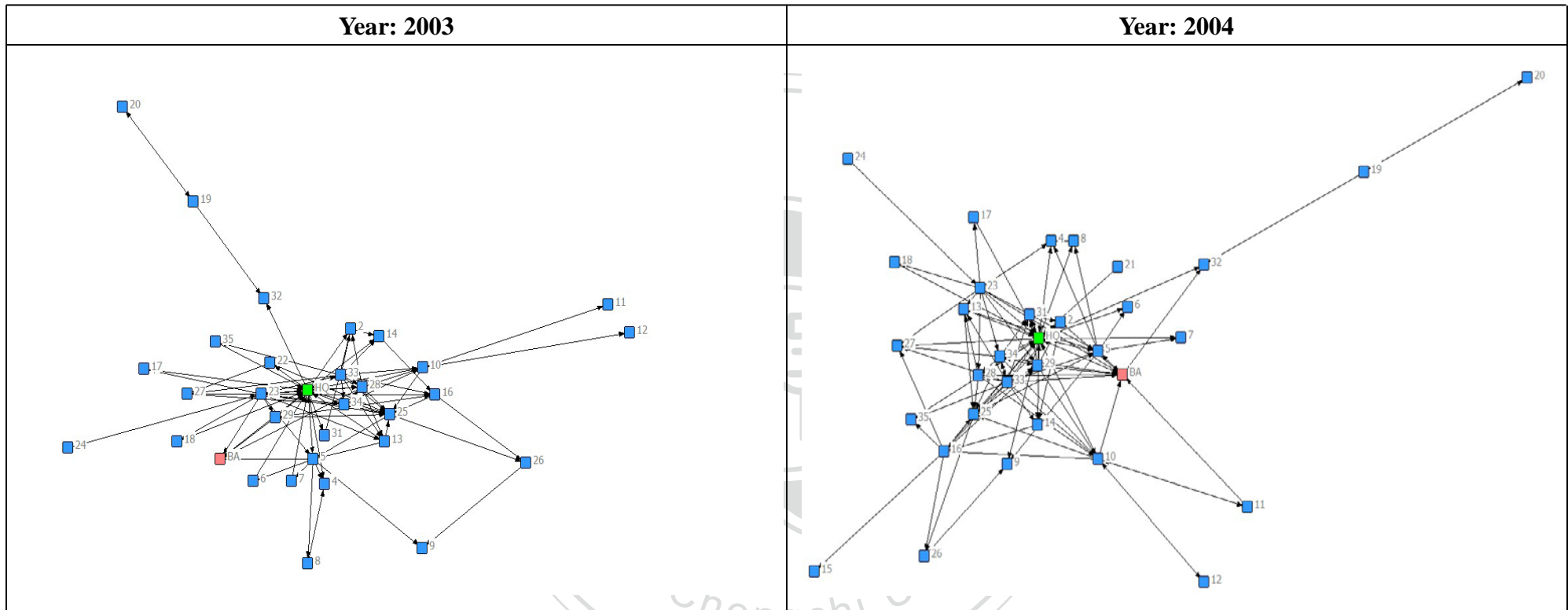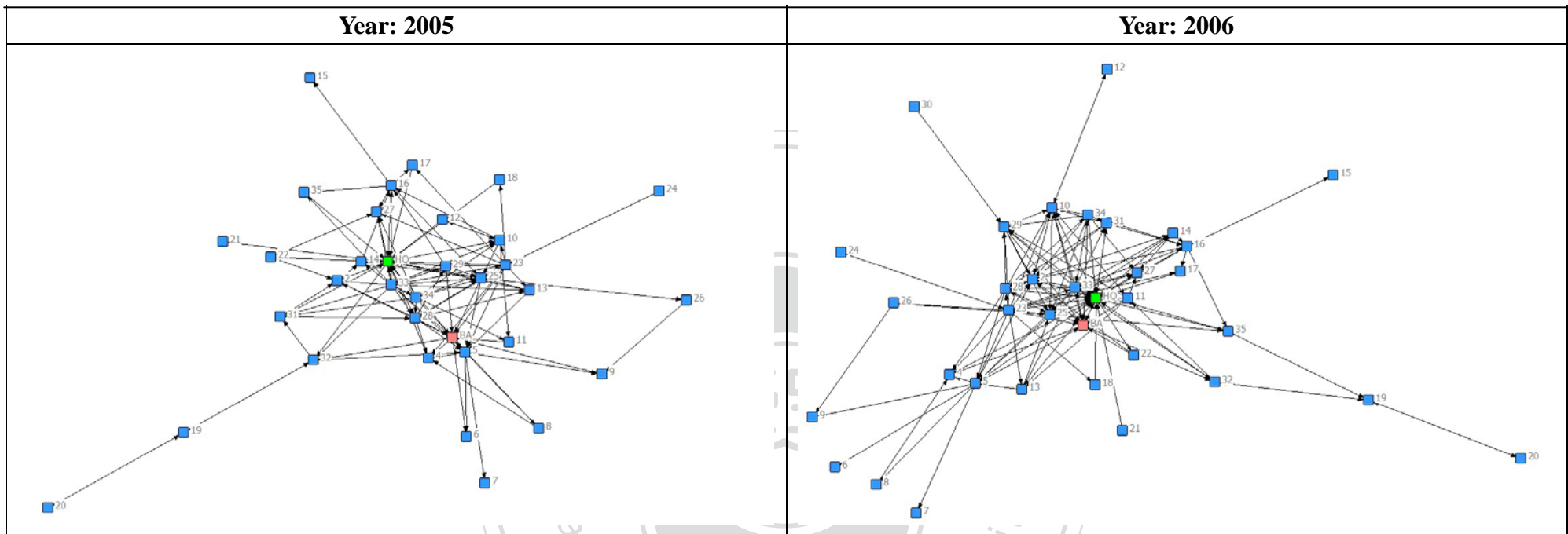**FIGURE 3.4: The Evolution of Transaction Network (2003-2007) (to be continued)**

FIGURE 3.4: The Evolution of Transaction Network (2003-2007) (to be continued)
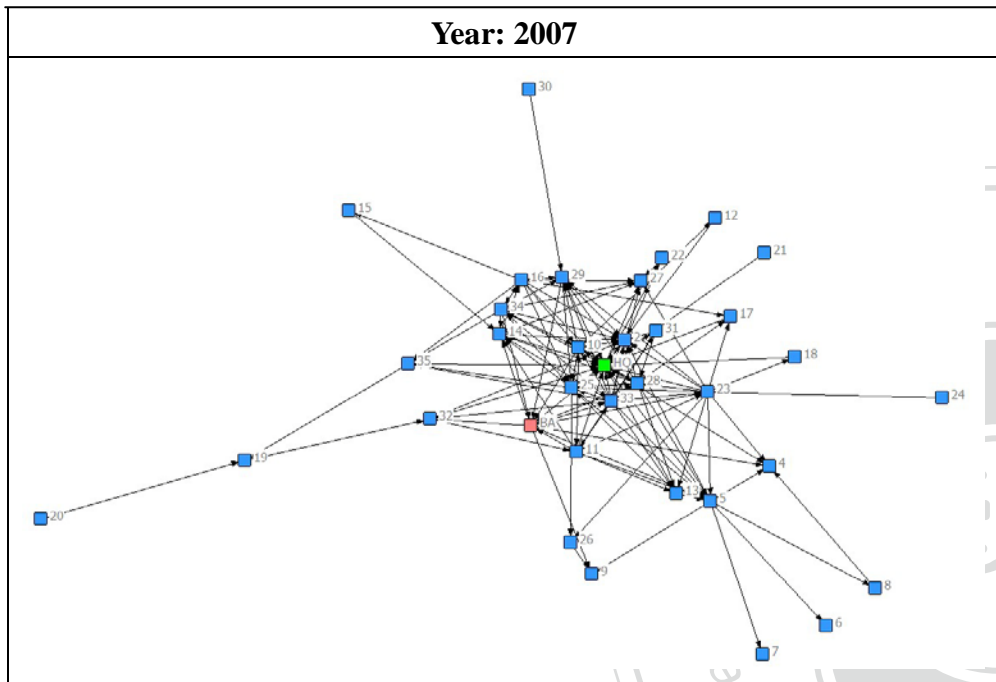
Year: 2007

FIGURE 3.4: The Evolution of Transaction Network (2003-2007)

Summary

Figure 3.5 summarizes the interplay between social interactions and organizational identities in our study, showing graphically social interactions or networking strategies at each stage that led to a shift in organizational identities, which in turn led to new connections and finally changed the network picture dramatically.   In 2000, the group headquarters acquired a company and encountered a blast from group members because the newcomer's behaviors and perceptions were far away from and even violated the salient and enduring essence of this group. Moreover, the paucity of contacts and infrequent contacts turned the perceived identity conflicts into real hostility. (Identity 1)   To break the deadlock, the president of this company used his friendships to create the willingness of the opposite side to interact with them; on the other hand, he began with a problem, which the group headquarters could give a satisfactory answer, to push his subordinates to interact with the opposite group.   Through interacting with each other and working together toward a solution, technicians and managers of both sides gradually became friends. (Interaction 1)

These informal contacts gave the newcomer an opportunity to make a comparison, to learn from the group headquarters, and to further change their usual practices (especially in production division) and their perceptions of the opposite group. (Identity 2)   This shift in perceptions pushed the newcomer to review its old self-definitions, to seek a new possible definition, and to initiate a series of changes in the composition of connections.   First, it cut off old links with some partners to abandon outdated images but built new links with group affiliates who could help it find possible self.   Second, it actively build connections with varied group-affiliated firms to win their affection and to push them rethink "what does this newcomer stand

for". Third, it continued to build more formal and frequent connections with the group headquarters. The action let its members gain more opportunities to interact with individuals from varied departments or mills of the group headquarters. On the other hand, the formal and frequent connections also acted as a pipeline which the group headquarters could instill shared values or common characteristics into this newcomer. (Interaction 2)

Although this connection transition started from a desire that the newcomer would like to reconstruct who they are as an organization, the interplay between the newcomer and its partners, group members, turned it into a co-evolution process. They learned from and influenced each other reciprocally and simultaneously. Connections provide a venue for different groups to compare with, to imitate, and to influence each other. Clearly, similarities between their identities continued to mount. However, connections not merely bred homophily but also gave different parties an opportunity to find elements which were worthy of preservation, to explore hidden but good elements, and to further change those elements into distinctive characters of them. (Identity 3) Similarities between both sides imperceptibly blurred the line between "us" and "them" and helped this newcomer to win group members' recognition which prolonged their relationships. Meanwhile, this newcomers' distinctiveness made it become a role model within group and pushed potential partners to actively build connections with it. Gradually, this newcomer not only extricated conflicting parties from an identity conflict trap but also became a central actor. (Interaction 3)

Stage 1 — Identity 1 → Interaction 1

The initial stage of post-acquisition: Identity conflicts and the paucity of contacts

Using friendships to bridge conflicting parties

Stage 2 — Identity 2 ← Interaction 2

A shift in perceptions and usual practices

Cutting off links with Alpha Group and expanding the boundary of connections within BETA Group

Stage 3 — Identity 3 ← Interaction 3

Co-evolving similar characters and exploring distinctive characters

Passively connected by group members and gradually being a relatively central actor
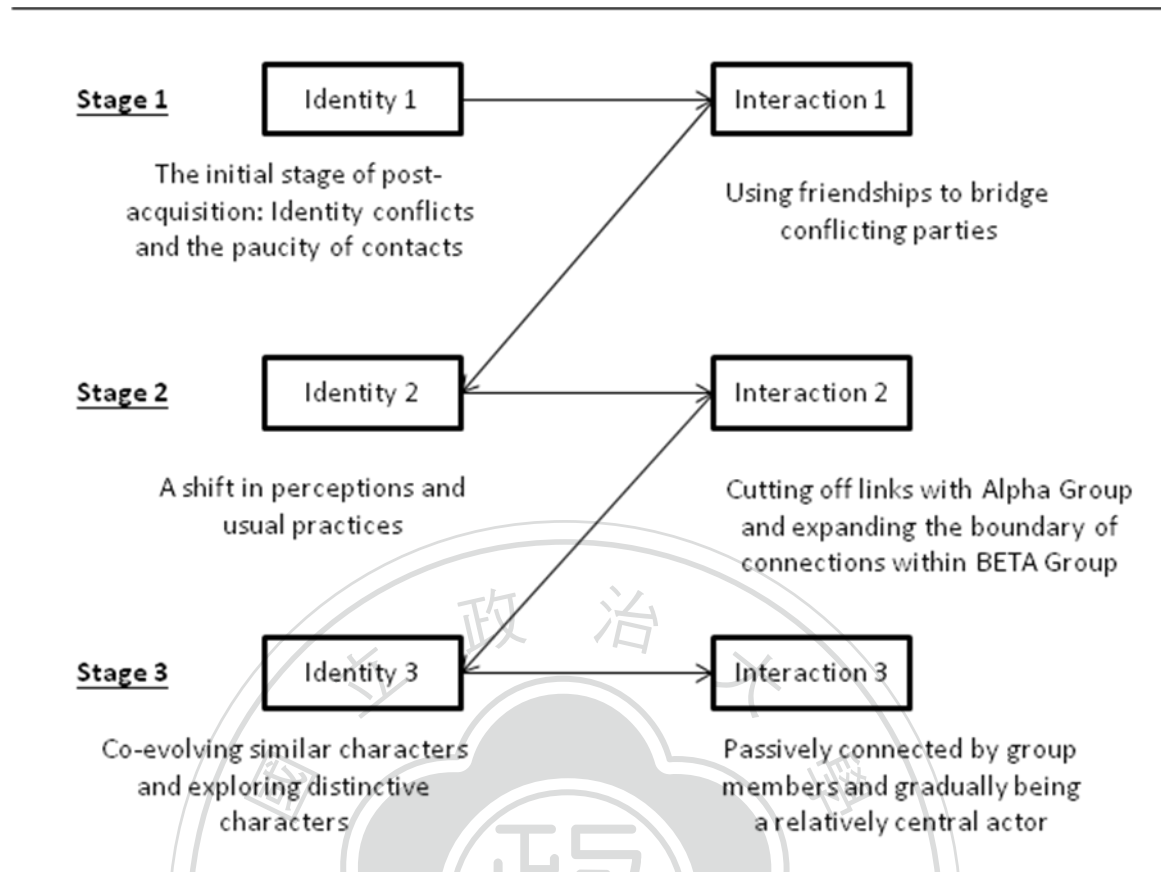
FIGURE 3.5: A Model of the Interplay between Social Interactions and Organizational Identity

CHAPTER 4. HYPOTHESES

In preceding chapter, I can know that Ba Co. took some actions to reach identity integration and identity differentiation.   Integrating values muddled the line between Ba Co. and other group members and reduced the hostility between them. Distinctive values attracted other group members to go to Ba Co. to gain some advices and helped Ba Co. to win sister affiliates' recognition and respect.   In the case study, I found that identity integration and identity differentiation helped Ba Co. to resolve the conflicts between it and sister affiliates and to win sister affiliates' acceptance and willingness to interact with it.   This finding offers an answer to the question, "how can a firm get out of an identity conflict trap?", contributes to identity literature, and has some implications for social network literature.   In order to echo above case study, I collected more data to do empirical test and tried to develop some hypotheses in this chapter.

Traditional social network literature points out that firms which occupy central positions enjoy higher performance through drawing resources or information from multiple connections and making friends with central actors improves ties' effectiveness (Ahuja, 2000; Baum, Calabrese, & Silverman, 2000; Gulati & Higgins, 2003; Podolny & Stuart, 1995; Stuart, 2000).   Therefore, centrality plays an important role in the process of pursuing higher performance and the behavior of central actors becomes a focus for research in past decades.   However, recently, in an empirical data collected from 171 subsidiary units, over 40% participated in knowledge sharing less than once a year and 13% acted as completely isolators in MNCs' knowledge flow networks (Monteiro, Arvidsson, & Birkinshaw, 2008). From this percentage distribution, I realize that peripheral actors and isolators constitute a major group in the network, but, surprisingly, most of previous studies

concentrate on investigating the behavior and strategy of central actors and seldom care about peripheral actors (Monteiro, Arvidsson, & Birkinshaw, 2008). Very few network members can gain prominent positions in the beginning. Instead, most network members need to go through a trial-and-error process to find appropriate strategies and further enhance their positions. As a result, it is worth examining what is the strategy of peripheral actors to obtain relatively central positions.

Concerning the answer of the above question, while previous studies focus on how to use resources to build more ties or create ties with central actors (e.g., Powell, Koput, Smith-Doerr, 1996) to reach relatively central positions, Ba Co., a peripheral firm in the beginning, experienced a different way. Ba Co. not only developed some integrating values to gain sister affiliates' willingness to prolong existing cooperative relationships but also poured some distinctive values into its identities to attract potential cooperative partners to actively build new ties with it. Using identity transformation to win more ties and gain a relatively central position is a way which never came into my mind before and was seldom mentioned in existing literature.

Firms who hold integrating values are assumed to share certain methods of perceiving and interpreting the world; such characteristics help firms to increase the likelihood of cooperation with others and reach the success of cooperation because congruent values facilitate communication between cooperative companions. On the other hand, firms who hold distinctive values are attractive to potential partners because partners can learn something from them. Those distinctiveness, creating the feeling that cooperating with us is a "good thing to be doing" (Evan, 1965), also help focal firms enjoy high average cooperation with other group members. Therefore, I propose that firms with high identity integration and high identity differentiation are more likely to have high average cooperation with other group members.

H1: Firms with high identity integration and high identity differentiation are more likely to have high average cooperation with other group members.

However, what kind of network position can help firms achieve high identity integration and high identity differentiation? If a firm is affiliated with only one group, it tends to highlight the boundary between "us" and "them" and use derogation to defend the group from threats posed by others (Noel, Wann, & Branscombe, 1995). The firm has this tendency because it has no alternative and attempts to avoid losing its identities (Burt, 2005). On the contrary, a firm building ties with two groups is less constrained (Burt, 2005). It means that brokerage positions give brokers more opportunities to be familiar with alternative ways of thinking, behaving, and perceiving this world (Burt, 2005). In addition, when identity conflicts result in hostile relationships between partners, brokers were pushed to take the responsibility of coordination. In order to achieve successful coordination, brokers need to not only know the gap between partners but also find a way to reconcile different logics through dialects. These actions give brokers a chance to discover the advantages of partners' identities and possible ways of integration. Namely, the process of coordination not only facilitates the communication between partners but also gives brokers an option of selecting and synthesizing alternatives (Burt, 2005). A synthesis developed from the dialectical process gives brokers a motive to "unfreeze" their current frames and pour more integrating elements in their identities. Therefore, brokers, instead of people in a densely closure, are more likely to develop congruent values and have high identity integration.

Moreover, people confined within one group often seek for differences between themselves and others, to claim that "our situation is different", and to make they feel good when they ignore beliefs which were different from their own and may create

values in operation (Burt, 2004). On the contrary, brokers, who get used to translate beliefs in one group into language digestible in the other group (Burt, 2005), have more possibilities to be aware of and accept the way other group think or behave. Moreover, brokers are able to fuse valued aspects of partners' identities into their identities. Consequently, it is not difficult to comprehend why identities of brokers are more congruent with identities of other people.

On the other hand, compared with other network participants, brokers are also more likely to hold their distinctive identities. After all, it is not easy for actors who connect to only one group to keep their distinctiveness, because they face the pressure to abandon unique values and increase similarities to win ingroup members' recognition. Besides, actors who are confined within one group and frequently interact with ingroup members restrict themselves in a limited range of information and their beliefs become more and more similar to the ways ingroup members think or behave. At the opposite end of the spectrum, brokers, who are not restricted by a certain group of people, have more autonomy in shaping their own identities and face less pressure to abandon existing values which might be quite different from others'. Undoubtedly, brokers are able to hold distinctive values because there is no need to abandon existing uniqueness to show their loyalty to a certain group. Furthermore, brokers access to divers, often contradictory, information and beliefs which inspire them to develop new ideas or new ways of behaving (Burt, 2005). The new framework reflects a new dimension of "how they perceive themselves and the world" and gradually becomes a core and unique element in brokers' identities. This also shows that, compared with others, brokers are more likely to have high identity differentiation. Based on above arguments, I propose that brokers are more likely to achieve high identity integration and high identity differentiation at the same time.

However, central brokers (brokers in the central group) and peripheral brokers

(brokers in peripheral groups), which kind of brokers are more likely to achieve high identity integration and high identity differentiation? Ibarra (1999) proposed that people tend to distribute messages "who they are" or "who they want to be seen" to others by using a network of partners. By observing partners' response to their messages, people keep or modify their identities (Swann, 1987). As a result, identities have been viewed as outcomes of negotiation between different parties in social networks (e.g., Cooley, 1902; Mead, 1934; Goffman, 1959). Under this circumstance, players in the central group are more likely to mutually influence identities because of dense connections and frequent interaction. Gradually, identity gaps among central players narrow down. Frequent interaction initiates identity integration in the central group. Those integrated identities of central players are defined as better examples of network members than others', but central players may lose distinctiveness of their identities at the same time. The implication is that, facing the pressure from others in the densely connected core, brokers in the central group (central brokers) may reach high identity integration but also lose distinctive identities. Nevertheless, players in the peripheral group seldom keep contact with others and are rarely forced to integrate their identities. Brokers in the peripheral group (peripheral brokers) not only can maintain their distinctive identities, but also can interact with partners who may come from central group and pour some integrating value into peripheral brokers' identity pool. Consequently, people in the peripheral broker positions have more probability to reach high identity integration and high identity differentiation at the same time.

H2: Peripheral brokers are more likely to have high identity integration and high identity differentiation.

Moreover, while numerous researchers propose that central positions can help actors to gain more opportunities to cooperate with others or be selected as cooperative partners, I argue that peripheral brokers (who stay in the peripheral positions) can have more chances to cooperate with others.   I investigated the evolution of transaction network of BETA Group and found that Ba Co. has the tendency to stay in the marginal position (see figure 3.4.   Ba Co. occupied a position near the core but not in the core).   Why did Ba Co. choose to stay in the marginal position instead of moving to the central position?   Why did Ba Co. choose a counter-intuitive way?   Although high centrality represents that actors have more diverse sources of information and resources, actors may be overwhelmed by overload of information or spend a lot of time to do coordination.   Given the limited time and efforts, it is difficult to maintain too much or redundant connections.   In another word, redundant connections may turn advantages of centrality into disadvantages.   On the other hand, central actors may be constrained by social norms and favor maintenance (Becker, 1970).   Conversely, actors in non-central positions are outside the domain of social norms and have little to lose by pioneering initially unpopular innovations (Becker, 1970).   In another word, peripheral actors, who do not occupy the central positions and are not too integrated into the group, have more chances to try something which has potential but not widely accepted in the group. These actions can help peripheral actors to be more innovative and have something for others to learn from them.   For this reason, I propose that peripheral brokers, who can use their brokerage positions to gain diverse information and are not constrained by social norms because of their peripheral positions, are more likely to have high average cooperation with other group members.   Furthermore, as I mentioned before, peripheral brokers have more congruent values and more distinctive values which facilitate communication between them and companions, prolong existing cooperative

relationships, and attract potential partners to build new cooperative connections with them.   Therefore, high identity integration and high identity differentiation plays a mediating role in the association between peripheral positions and cooperation.

H3: Peripheral brokers are more likely to have high average cooperation with other group members through high identity integration and high identity differentiation.

CHAPTER 5. RESEARCH METHODOLOGY

SECTION 5.1. RESEARCH SITE AND DATA COLLECTION

Business groups not only act as a substantial engine of economic growth, but also pervasively exist in most emerging economies.　To interpret this common phenomenon, previous researchers, drawing insights from transaction cost theory, consider business groups a response to market imperfections in developing countries. For example, facing information asymmetries and undersupply of well-trained human resources in labor markets (Leff 1978; Khanna and Palepu 1997; Khanna and Palepu 1999; Khanna and Rivkin 2001), business groups can put promising managers in right positions (Khanna and Palepu 1997; Khanna and Palepu 1999).　Unlike advanced economies in which effective mechanisms to enforce contracts are taken for granted, emerging economies may suffer from weak contract enforcement and opportunistic behavior in product and factor markets (Leff 1978; Khanna and Palepu 1997; Khanna and Palepu 1999; Khanna and Palepu 2000; Khanna and Rivkin 2001).　To conquer such imperfections in product and factor markets, business groups trade internally against opportunistic behavior because intra-group economic and social punishments are harsh (Khanna and Rivkin 2001).　Therefore, compared with non-group affiliates, group affiliates need to pay more attention on finding ways to gain support and resources from the group.　In other words, as for group members, network strategy is an important strategy because ingroup connections serve as sources of critical resources and information.　For this reason, I choose business groups as our research setting.　On the other hand, although collecting more longitudinal data and data about invisible ties in business groups is encouraged (Khanna & Rivkin, 2006), most studies still use visible connections (such as shareholding and interlocking board) to do empirical analyses due to the difficulty of data access.　I collected different types

of survey data and longitudinal data to test our empirical hypotheses for the sake of contributing to the theory.

Questionnaires were distributed in a large multinational business group (fictitious name: BETA Group) in 2008. BETA Group is among the world's Top 20 largest firms in mental industry and has total assets of over US$12 billion and annual sales of over US$8.5 billion. Thirty-five corporations constituted BETA Group at the time of the survey. To test my research hypotheses, I designed different types of questionnaires to collect data from multiple sources.

First, I used sociometric techniques to gather longitudinal resource flow data. The data of resource exchanges (transaction network) included the period 2003-2007. Network data collection process was mentioned in self-report data section in above qualitative case study. Second, I contacted three top managers per firm to answer our perceptual measures, such as identity integration and identity differentiation, in the end of 2008. To prevent any problems stemming from social desirability, I promised that I would keep the real names of the companies strictly confidential and all respondents returned their completed questionnaires directly to us, rather than routing them through the group headquarters. Third, after several months, I asked three high executives in the group headquarters to answer our questionnaire about the dependent variable, cooperation, in 2009. Fourth, I gathered the business group's archival data to be the sources of information for control variables. The variables, time period, data sources, respondents, and level of analysis are summarized in Table 5.1.

Table 5.1

Data Collection for Empirical Study

Variables	Time Period	Data Sources	Respondents	Level of Analysis
Dependent Variable				
1. Cooperation	2009	HQ Survey	Three executives in HQ	Dyad[1]
Independent Variables				
1. Central Broker	2008	Firm Survey	Three executives per firm	Firm
2. Peripheral Broker	2008	Firm Survey	Three executives per firm	Firm
3. Identity Differentiation	2008	Firm Survey	Three executives per firm	Firm
4. Identity Integration	2008	Firm Survey	Three executives per firm	Firm
Control Variables				
1. Board	2007	Corporate Annual Report	-	Firm
2. Personnel Inflow	2003-2007	Self-report Data	A related manager per firm	Firm
3. Bonacich Power - Transaction	2003-2007	Self-report Data	A related manager per firm	Firm
4. Ownership	2007	Corporate Annual Report	-	Firm
5. Past Innovative Performance	2004	Self-report Data	A related manager per firm	Firm
6. Firm Size	2007	Corporate Annual Report and Secondary Data	-	Firm

Note 1. Following the way used by Milton and Westphal(2005), I adopted dyadic level to

design this questionnaire and then used the responses to compute firm level index.

SECTION 5.2. MEASURES

Dependent Variables

Cooperation.

As I mentioned above, I designed different kinds of surveys to collect data from multiple sources. Although most surveys were designed at firm level, I used dyadic level[1] to design the survey about cooperation. There are two reasons. First, there are 35 firms in BETA Group. If I adopted firm as the level of analysis to design the questionnaire, respondents has to answer the same question 35×34 number of times. In order to reduce tediousness, I, following Milton and Westphal(2005), adopted dyadic level to design this questionnaire and then used the responses to compute firm level index. On the other hand, the degree of cooperation between firm i and different partners may vary. If I did not design the questionnaire at dyadic level, I cannot investigate variations among dyads. Based on these two reasons, it is better to evaluate the extent of cooperation at dyadic level.

I used a three-item measure to assess the extent of cooperation in each pair. The items were: (1)"Did these two group members rely on each other for help at work? If yes, please indicate it,"; (2) "Did these two group members discuss problems together and concern with each other? If yes, please indicate it,"; and (3)"Did these two group members have conflicts between them? If yes, please indicate it. (reverse-coded)" (Tjosvold, 1988). These items ($\alpha = 0.81$) showed the interactive dimension of cooperation (Tjosvold, 1988) and captured the variances in cooperation in each dyad. Before I average the answers of three executives in the group headquarters, I calculated interrater agreement by using convergent index (Tsai &

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[1] Dyad means two actors connected by a tie. For example, two cooperative partners constitute a cooperative dyad.

Ghoshal, 1998）．The index was 0.77, which offered evidence of interrater agreement of the cooperation measure．Then, I, referring to the method used by Milton and Westphal(2005), computed *cooperation in a dyad* by averaging the rating on three items in a dyad and computed *cooperation with other group members* by averaging all ratings concerning a focal group member on cooperation．For example, the scores of (item 1, item 2, item 3) of $dyad_{ij}$ are (1, 1, 0)．Then, *cooperation in $dyad_{ij}$* is (1+1+0) / 3 = 2/3．If there are three group members, *cooperation in $dyad_{12}$* is 1/3 and *cooperation in $dyad_{13}$* is 2/3．Then, as for firm 1, the extent of *cooperation with other group members* is (1/3 + 2/3) / 2= 1/2

Independent Variables

 Central Broker and Peripheral Broker in Advice Network.

To outline the picture of advice network, I requested the focal firm to identify sister affiliates which "discuss work-related issues with you and give you advice" (Gibbons, 2004)．To validate the information, I asked the opposite question "which group members come to you to discuss work-related issues and obtain advice"．I had multiple respondents per firm so I thought data credible if any respondent in advice provider indicated a relationship confirmed by any respondent in advice receiver．Based on this validated data, I created a 35×35 relational matrix in which cell ij was filled in 1 if firm i provided advice to firm j.

I proposed that peripheral brokers can gain more opportunities to cooperate with others, so I need to know network position of each firm to identify who are peripheral brokers．I used blockmodeling technique to classify all group members into two groups．The blockmodeling technique selected by me was automorphic equivalence．Automorphic equivalence categorizes network participants in accordance with similarities in their pattern of relationships, even though those

relations may not be with the same partners.   While structural equivalent position refers to sets of actors who build similar types of ties with specific partners (Lorrain & White, 1971), automorphic equivalent position refers to sets of actors involved in identical pattern of ties but not necessarily with the same partners.   I chose automorphic equivalence, rather than other blockmodeling models (such as structural equivalence), because, theoretically, I focused on similar pattern of relations instead of building ties with the same alter (ex. ties with actor A).   I selected UCINET (Borgatti, Everett, & Freeman, 2002), a software for social network analysis, to perform this algorithm.   Automorphic equivalence divides all group members into two blocks and all group members within each block were automorphic equivalent.

After classifying all group members into two blocks, I calculated entire network density and block density to know relations within and between blocks.   When between block density is greater than entire network density, there is a connection between these two blocks.   If block A is internally cohesive and other blocks connect to block A but not to each other, I can identify block A is the central block and other blocks are peripheral blocks (Mullins, Hargens, Hecht, & Kick, 1977; White, Boorman, & Breiger, 1976), because this diagram reflects that people in peripheral blocks frequently go to central actors (people in block A) to ask for advice but rarely interact with people in other blocks.

Above information helps me appropriately split entire network into blocks and know which one is the central block.   Then, I used G&F brokerage formula (Gould & Fernandez, 1989) to calculate brokerage score of each firm.   The report told us the brokerage score of central firms and the brokerage score of peripheral firms. Therefore, I can create two variables – central broker and peripheral broker.   For example, if the focal firm which belongs to the peripheral block brokered 70 pairs in all, its score of central broker was 0 and score of peripheral broker was 70.

Identity integration and Identity differentiation.

Step 1. Item Generation

I and two colleagues jointly completed this scale development process.   We are familiar with organizational identity literature and specialize in international business or strategy field.   One of us has a paper about identity published in A-Journal.   We adopted both inductive and deductive approaches to identify main dimensions of identity integration and identity differentiation.   The inductive approach helps researchers to capture constructs, which lack of strong theoretical foundation to guide item generation, by interviewing a number of respondents to gather descriptions of behavioral incidents (Hinkin, 1998).   I gathered information about two constructs, identity integration and identity differentiation, from all group-affiliated firms in item generation stage.   Twenty-six executives from different group affiliates in the home country were formally interviewed; 23 interviews were recorded and transcribed and notes were taken for three interviews.   All interviews lasted nearly one hour.   I also asked executives in 9 foreign subsidiaries to describe some aspects of constructs through e-mail.   I began the interview by explaining the definition of organizational identity, integration, and differentiation.   Then, I asked following questions: (1)"Please describe your company in terms of central, distinctive, and enduring characteristics and give some examples to support above statements. In addition, when you answered this question, please think about your company as a whole and tell us what your company stands for, rather than, ideally, what your company should be"(Brickson, 2005), (2)"Please describe your company in terms of qualities which can fuse your company into the group and facilitate cooperation between your company and sister affiliates to achieve unity of effort," and (3)"Please describe your company in terms of qualities which show differences between your

company and other group members in ways of thinking and behaving." I didn't restrict the range of answers and let the key construct dimensions emerged from my interviews. On the other hand, I also referred to existing organizational identity literature, such as Pratt and Foreman(2000), to find out possible dimensions and develop items based on theoretical definitions of dimensions. Through inductive and deductive approaches, 73 items for identity integration and 61 items for identity differentiation were generated.

Step 2. Item Reduction and Content Validity

I and two colleagues adopted two criteria to screen all items: (1) whether the item conforms to theoretical definition of organizational identity; and (2) whether the item reflects the concept of identity integration or identity differentiation. The question of whether the item should be discarded would be decided by consensus. If more than two of us decided to discard an item, the item would be discarded (66.67%). After initial discussion, I and two colleagues decided to discard 44 items which did not refer to organizational identity, identity integration, or identity differentiation. 38 items of identity integration and 52 items of identity differentiation remained. I and two colleagues classified remaining items into mutually exclusive categories based on similarity of item content. There were 4 dimensions of identity integration and 6 dimensions of identity differentiation. Then, I randomly arranged these items and invited three doctoral students to act as test judges. Two test judges major in strategy and the other one major in international business. They all took a course on organizational theory and knew some main ideas of organizational identity. I offered a list of theoretical definition of each dimension and an additional option, "it is difficult to classify this item into a specific category", to let three judges choose an appropriate answer for each item. Three judges completed this task independently

and categorized all measures based on theoretical definition of dimensions.   The result laid the foundation for subsequent questionnaire development because I knew whether an item clearly reflected the meaning of the dimension.   I and two colleagues eliminated items which were not correctly classified into designated category by at least one judge.   I and two colleagues also eliminated dimensions which have few items.   Before questionnaires were distributed, I asked three managers (two human resources managers and one production manager) to go through all items to ensure that all items had clear meaning and were easy to be understood.   Table 5.2 lists all dimensions and the items of two constructs, identity integration and identity differentiation.
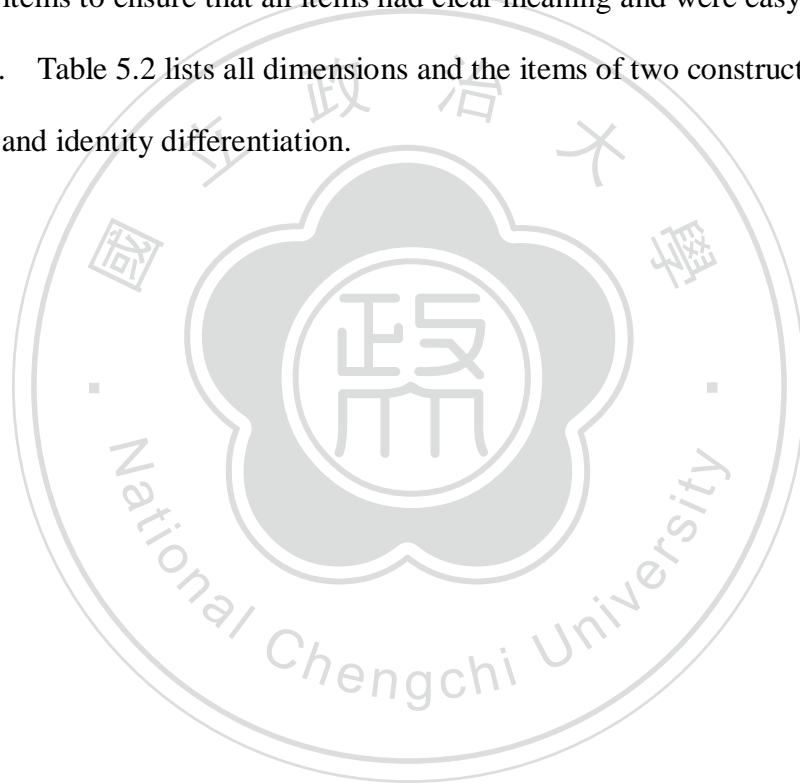
TABLE 5.2 (to be continued)

Summary of Dimensions and Measures

(7 point scale, 1=strongly disagree and, 7=strongly agree)

Constructs	Dimensions and Definitions		Measures
Identity Differentiation	1. Better than them: A firm does better work in some common characteristics.	D1	I have some characteristics on which other group members also emphasize, but I implement them more thoroughly.
		D2	I have some characteristics on which other group members also emphasize, but I pay more attention on them.
		D3	I have some characteristics on which other group members also emphasize, but people would praise us for our performance.
		D4	I have some characteristics on which other group members also emphasize, but people would think about us when they talk about these attributes.
		D5	I have some characteristics on which other group members also emphasize, but sister affiliates prefer to learn from us.
	2. Specialty: A firm has positive distinctiveness which does not belong to other group members.	D6	In the group, our company possesses some values which are difficult to be replaced by others.
		D7	In the group, our company possesses some values which distinguish us from others.
		D8	In the group, our company possesses some values which can help the entire group to have stable growth.
	3. Independence: A firm does not rely on other group members.	D9	I rarely need help from the group, compared with other group members.
		D10	I rarely rely on the group, compared with other group members.
		D11	I rarely need the group to give us resources to keep our firm running properly, compared with other group members.

TABLE 5.2

Summary of Dimensions and Measures

(7 point scale, 1=strongly disagree and, 7=strongly agree)

Constructs	Dimensions and Definitions		Measures
Identity Integration	1. Aggregation: Forging links between firms' identities and exploit synergies between or among the identities.	I1	Linking our company's processes with other group members' can create synergy.
		I2	Linking our company's attributes with other group members' can create synergy.
		I3	Linking our company's departments with other group members' can create synergy.
		I4	Linking our company's value activities with other group members' can create synergy.
	2. Complementarity: A firm's characteristics meet other group members' needs.	I5	Our resources are a good fit with the demands of other group members.
		I6	Our abilities are a good fit with the demands of other group members.
		I7	Our knowledge is a good fit with the demands of other group members.
	3. Similarity: A firm's characteristics overlap with other group members' characteristics.	I8	Our company's managerial spirits are very similar to most group members' managerial spirits.
		I9	Our company's core values are very similar to most group members' core values.
		I10	Our company's culture is very similar to most group members' culture.

Step 3-1. Exploratory Factor Analysis

Factor analysis allows researchers to develop a more parsimonious set of variables and offer evidence of construct validity (Guadagnoli & Velicer, 1988). I performed principle-axis factoring with oblique rotation. Eigenvalues of greater than 1(Kaiser criterion) and scree tests of the percentage of variance explained (Cattell, 1966) were included as criteria. Regarding identity differentiation, KMO (Kaiser-Meyer-Olkin) equals to 0.794 and the significance of Bartlett's sphericity test is less than 0.001. Analysis of the 11 items resulted in three factors that explained 79.22 % of the variance. Eigenvalues of three factors (Better than them, Specialty, and Independence) are all higher than 1. In addition, when number of factors equal to three, there is a drop in the scree plot (see figure 5.1). Based on the oblique factor pattern, each factor clearly reflects one of the three dimensions. Items of identity differentiation, factors, factor loadings, eigenvalues, and total variance explained are listed in Table 5.3.
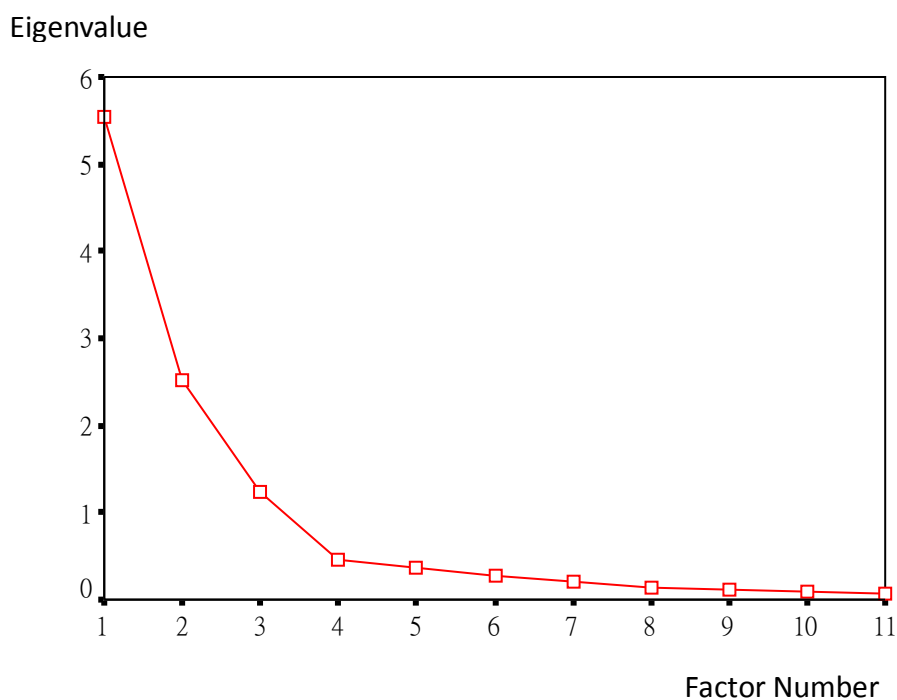
Eigenvalue

Factor Number

Figure 5.1: Scree Plot of Identity Differentiation

TABLE 5.3

Factor Analysis for Identity Differentiation

	Items	Better Than Them	Specialty	Independence
D1	I have some characteristics on which other group members also emphasize, but I implement them more thoroughly.	0.954		
D2	I have some characteristics on which other group members also emphasize, but I pay more attention on them.	0.954		
D3	I have some characteristics on which other group members also emphasize, but people would praise us for our performance.	0.865		
D4	I have some characteristics on which other group members also emphasize, but people would think about us when they talk about these attributes.	0.831		
D5	I have some characteristics on which other group members also emphasize, but sister affiliates prefer to learn from us.	0.674		
D6	In the group, our company possesses some values which are difficult to be replaced by others.		0.959	
D7	In the group, our company possesses some values which distinguish us from others.		0.945	
D8	In the group, our company possesses some values which can help the entire group to have stable growth.		0.724	
D9	I rarely need help from the group, compared with other group members.			0.941
D10	I rarely rely on the group, compared with other group members.			0.881
D11	I rarely need the group to give us resources to keep our firm running properly, compared with other group members.			0.845
	Eigenvalue	5.344	2.309	1.061
	Total Variance Explained	48.585	69.572	79.220

Regarding identity integration, KMO (Kaiser-Meyer-Olkin) equals to 0.875 and the significance of Bartlett's sphericity test is less than 0.001.   Analysis of the 10 items resulted in three factors that explained 79.125 % of the variance.   Eigenvalues of factor 1(Aggregation) and factor 2(Complementarity) are higher than 1.   Although eigenvalues of the third factor (Similarity) is 0.802, the initial eigenvalue of similarity is 1.011 (which is greater than 1).   In addition, when number of factors equal to three, there is a drop in the scree plot (see figure 5.2).   Based on the oblique factor pattern, each factor clearly reflected one of the three dimensions.   Items of identity differentiation, factors, factor loadings, eigenvalues, and total variance explained are listed in Table 5.4.
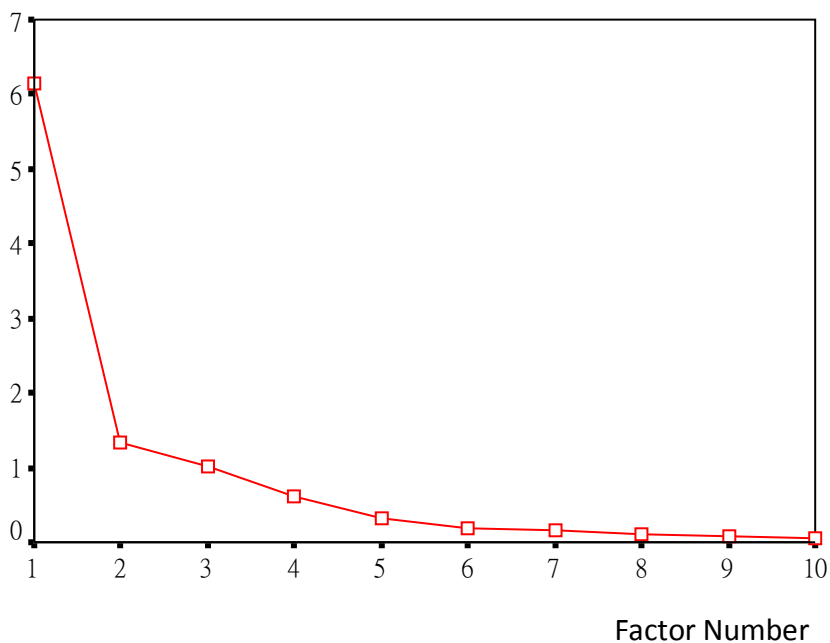
Eigenvalue

Figure 5.2: Scree Plot of Identity Integration

TABLE 5.4

Factor Analysis for Identity Integration

	Items	Aggregation	Complementarity	Similarity
I1	Linking our company's processes with other group members' can create synergy.	0.961		
I2	Linking our company's attributes with other group members' can create synergy.	0.957		
I3	Linking our company's departments with other group members' can create synergy.	0.898		
I4	Linking our company's value activities with other group members' can create synergy.	0.887		
I5	Our resources are a good fit with the demands of other group members.		1.004	
I6	Our abilities are a good fit with the demands of other group members.		0.870	
I7	Our knowledge is a good fit with the demands of other group members.		0.869	
I8	Our company's managerial spirits are very similar to most group members' managerial spirits.			0.963
I9	Our company's core values are very similar to most group members' core values.			0.655
I10	Our company's culture is very similar to most group members' culture.			0.421
Eigenvalue		5.982	1.129	0.802
Total Variance Explained		59.816	71.107	79.125

Step 3-2. Reliability Checks

I calculated Cronbach's coefficient alpha to assess internal consistency. Cronbach's coefficient alpha of identity integration was 0.94 and Cronbach's coefficient alpha of identity differentiation was 0.89. This ($\alpha > 0.7$) suggests that the sampling domain has been captured precisely (Churchill, 1979).

Step 4. Data Aggregation

Because I attempted to aggregate these perceptual items for each company, I need to ensure average score for each company over all the respondents reflected a company's perception. Following Shrout's and Fleiss's (1979) suggestions, I computed intraclass correlation coefficients (ICCs) to examine internal consistency of respondents' evaluations. Regarding the concept of identity integration, ICC(1) value was 0.5196 and ICC(2) value was 0.7459. Regarding the concept of identity differentiation, ICC(1) value was 0.5165 and ICC(2) value was 0.7435. ICC(1) and ICC(2) suggest that evaluations were reasonably consistent over all the respondents. Thus, aggregations for each company were supported.

Step 5. Mediator

I created a dummy variable, high identity integration and high identity differentiation, using arithmetic mean as the cut-off threshold. When both the value of identity integration and the value of identity differentiation were above arithmetic mean, I coded 1 to represent that the focal firm possessed high identity integration and high identity differentiation at the same time, 0 otherwise. As described below, I also used geometric mean as an alternative cut-off point to test hypothesis 3 for the sake of evaluating the robustness of our results.

Control variables.

Board

Corporate boards grasp decision-making power and may trigger the transformation of organizational identity. In a focal firm, when most members of the board come from group affiliates, they may have the tendency to shape organizational identity with common elements which symbolize the group. In another word, the higher the percentage of board members from group affiliates, the more identity integration and the less identity differentiation a focal firm has, vice versa. Therefore, I collected board-related information from corporate annual report in 2007 and entered the measure, "the percentage of board members coming from group affiliates," in our models.

Personnel Inflow

Managers' perception and interpretation can influence organizational identity. Namely, managers from other group members may implant different ways of behaving and thinking in a focal firm and further change organizational identity, so I collected data about personnel flows to control this effect. I asked a focal firm to indicate sister affiliates which transfer talents to it to act as managers. To validate the data, I also asked opposite questions, "which group members transfer managers from your firm?". On the basis of validated long-term information, I constructed a relational matrix of personnel flows and apply this matrix to calculate in-degree centrality for each group member. In-degree centrality reflects the total number of firms from which a focal firm has received talents. The higher a firm's in-degree centrality, the more mangers transferred from other group members the unit has.

Bonacich Power – Transaction

Traditionally, degree centrality means that an actor who connects to more people has higher degree centrality and influences more network participants.

However, actors who have the same degree centrality are not necessarily equally powerful. For example, actor A and actor B have the same number of friends, so their degree centralities are the same. While actor A's friends each have a lot of friends, actor B's friends are isolators. Obviously, actor A and actor B are not equally important even though degree centrality approach suggests that there is no variance between them. Philip Bonacich offered a solution, bonacich power, to this problem. The attenuation factor of bonacich power reflects the effect of ego's partners' connections on ego's power. When the attenuation factor is negative (i.e., factor= -0.05), making friends with people with less connections makes ego powerful, because partners are dependent on ego (Bonacich, 1987). Central actors in transaction network are more attractive to other actors because they act as the hub of resource flows and dominate the network. Considering this, I collected transaction network data by asking the focal firm to indicate sister affiliates which sell products or services to it and also asking opposite questions, "which group members buy products or services from you". I calculated bonacich power by adopting attenuation factor = -0.05. The higher the bonacich power, the more power a focal firm has. The more power a focal firm has, the higher probabilities to cooperate with other group members a focal firm has.

Ownership

If firms have higher percentage of equity owned by other group members, they have higher possibilities to be recognized as ingroup members and be chosen as cooperative partners. Therefore, the ownership measure, the percentage of equity owned by other group members (including the group headquarters), was added in the statistical models.

Past Innovative Performance

Past innovative performance is another variable that can encourage firms to

build cooperative network.　　Firms with a history of innovating new products tend to continue performing well in innovation.　　Innovative firms are attractive to potential cooperative partners because they can serve as a springhead of creative ideas.　　Hence, I included past innovative performance measure, the number of new products or new services introduced in a firm in 2006, in my statistical analyses.

Firm Size

Large firms have more managerial resources to develop new knowledge and attract potential partners to build cooperative relationships with them.　　To control for a possible size effect, the number of employees was used as an indicator of firm size.
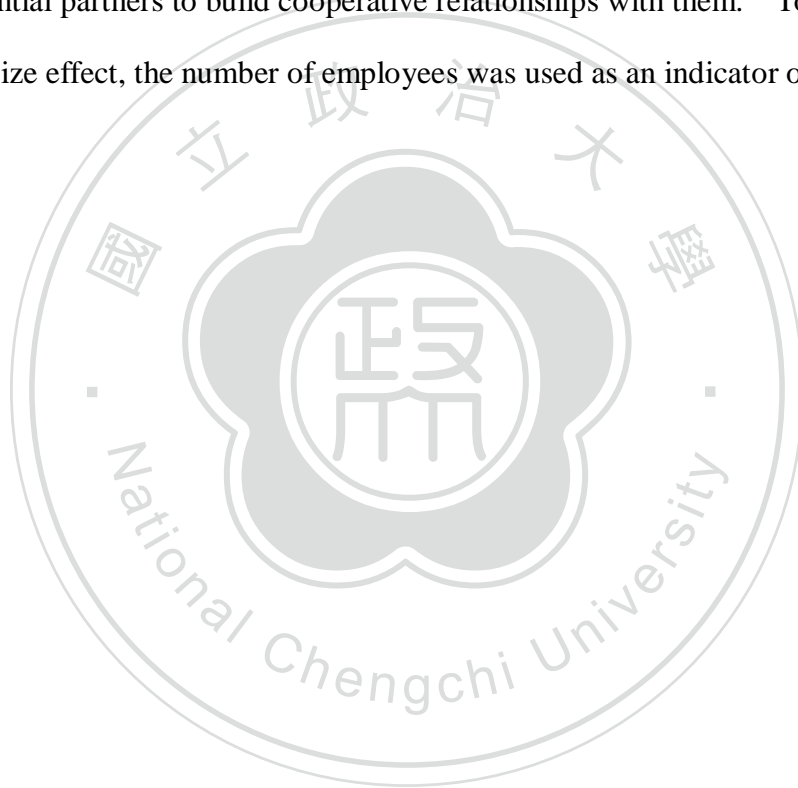
CHAPTER 6. EMPIRICAL RESULTS

Table 6.1 presents the descriptive statistics and correlations for all measured variables. To check for multicollinearity, I compute the VIFs (variance inflation factors) and they are all below 3.4, which is well below the cut-off point of tolerance and suggests that multicollinearity is not a serious problem (Wooldridge, 2002). I use polynomial regression (Edwards, 1993, 1994) which uses unconstrained regression equations to examine the relationship among identity differentiation, identity integration, and cooperation. The equation includes separate measures of identity differentiation and identity integration, their squared terms, and their interaction term. To reduce collinearity problems, the measure of identity differentiation and the measure of identity integration are scale-centered before they are squared. The equation is:

$$\text{Cooperation} = \beta_0 + \beta_1 D + \beta_2 I + \beta_3 D^2 + \beta_4 D*I + \beta_5 I^2 + e$$

D: the degree of identity differentiation of a group member

I: the degree of identity integration of a group member

Table 6.2 offers the result of polynomial regression analyses about the association between identity differentiation and identity integration and cooperation. I argue that firms with high identity differentiation and high identity integration are more likely to cooperate with other group members. After I control past innovative performance, ownership, Bonacich power of transaction network, and firm size, table 6.2 shows that $\triangle R^2$ for this set of identity-related predictors is statistically significant. The result suggests that some kind of association between identity differentiation and identity integration affects cooperation.

In figure 6.3, the congruence line (D = I), along which identity differentiation

and identity integration are equal, runs from the near corner to the far corner of the

contour plot.   The incongruence line (D = -I), along which identity differentiation

and identity integration are different, runs from the left corner to the right corner.   If

the curvature of the surface moves upward along the D = I line, it means that

cooperation would be more when values of identity differentiation and values of

identity integration were both high than when both were low (see figure 6.1 and figure

6.2); then, H1 is supported.   The three-dimensional surface plot created by

unstandardized regression coefficients also supports my theoretical argument (see

figure 6.1).   Furthermore, following the method used by Edwards and Rothbard

(1999), I calculated high score and low score to examine whether cooperation is

higher when both values of identity differentiation and values of identity integration

are high.   High score is 1.42 and low score is (-0.54).   High score is greater than

low score.   Therefore, Table 6.2, figure 6.1, figure 6.2, figure 6.3, high score and low

score all show that Hypothesis 1 is supported.   The implication is that imitating

ingroup members' behavior and ignoring uniqueness development cannot help a firm

have more cooperation with ingroup members.

In figure 6.3, I further investigate the distribution of cooperation on the

horizontal plot.   Intuitively, if a firm would like to gain more cooperation, it should

develop more congruent values or become more and more similar with potential

cooperative partners to gain their recognition and willingness to cooperate with this

focal firm.   However, in figure 6.3, I, surprisingly, find that the value of cooperation

is greater in the below right-hand corner (identity differentiation is high) than that in

the top left-hand corner (identity integration is high).   Counter-intuitively, figure 6.3

shows that identity differentiation contributes more to high cooperation.

In Hypothesis 2, I argue that peripheral brokers are more likely to have high

identity integration and high identity differentiation.   I use binary logistic analysis to test H2 and results in table 6.3 support my argument (regression coefficients = 0.04; p < 0.05).   Regression coefficients = 0.04 means that, compared with the probability of occurrence of non-event (DV=0), the probability of occurrence of an event (DV=1) increases 0.04 times for every additional value of independent variable.   The implication of this result is that, peripheral brokers, who are not constrained by a certain group and not too integrated into the business group, are more likely to accept partners' good ways of behaving and have more flexibility to try something new or develop uniqueness.

To know how much additional variance is explained by brokerage effect and identity effect, I conduct hierarchical regression analyses to test H3.   In Hypothesis 3, I propose that high identity integration and high identity differentiation plays a mediating role in the relationship between brokerage and cooperation.   Following Baron and Kenny (1986), I estimate the following regression equation to examine whether the mediating effect is supported.   First, the mediator (high identity integration and high identity differentiation) is regressed on the independent variable (peripheral broker).   Table 6.3 shows that peripheral broker positively affects high identity integration and high identity differentiation (regression coefficients = 0.04; p < 0.05).   Second, the dependent variable (cooperation) is regressed on the independent variable (peripheral broker).   Table 6.4 shows that peripheral brokers are more likely to have more cooperation with other group members (regression coefficients = 0.32; p < 0.05).   Third, the dependent variable (cooperation) is regressed both on the independent variable (peripheral broker) and the mediator (high identity integration and high identity differentiation).   Table 6.4 shows that high identity integration and high identity differentiation exerts a significant positive

impact (regression coefficients = 0.4; p < 0.001) on cooperation and the effect of peripheral broker on cooperation is less when the mediator (high identity integration and high identity differentiation) is controlled.　Hence, hypothesis 3 is supported. While the association between brokerage effect and cooperation is widely accepted, I open the black box, high identity integration and high identity differentiation, in this association.

Robustness Checks

In the above statistical analyses, I adopted arithmetic mean as the cut-off threshold when I ascertain whether a firm has high identity integration and high identity differentiation.　I also tested hypothesis 2 and 3 using geometric mean, instead of arithmetic mean, as the cut-off point.　I still find peripheral broker can have high identity integration and high identity differentiation ($p < 0.5$) and a positive mediating effect ($p < 0.01$) of high identity integration and high identity differentiation on cooperation.

Table 6.1

Means, Standard Deviations, and Correlations

Variables	Means	S.D.	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}
X_1 Central Broker	20.37	56.76											
X_2 Peripheral Broker	27.86	32.31	-0.32										
X_3 Identity Differentiation	4.51	0.91	0.30	0.33									
X_4 Identity Integration	4.38	1.06	0.37*	0.23	0.47**								
X_5 High Identity Differentiation and High Identity Integration	0.34	0.48	0.43*	0.12	0.55**	0.73**							
X_6 Board	0.79	0.28	0.06	0.11	-0.11	0.34*	0.17						
X_7 Personnel Inflow	4.91	6.93	0.29	-0.25	0.27	0.37*	0.29	-0.08					
X_8 Bonacich Power - Transaction	3.28	19.23	-0.11	0.03	-0.04	0.10	0.18	0.09	-0.00				
X_9 Ownership	0.77	0.31	-0.20	0.06	-0.23	0.11	-0.06	0.84**	-0.07	-0.00			
X_{10} Past Innovative Performance	2.83	4.87	0.27	-0.33	0.01	0.01	0.10	-0.27	0.41*	-0.20	-0.31		
X_9 Firm Size	558.91	1542.97	0.31	-0.15	0.37*	0.25	0.24	-0.23	0.88**	-0.01	-0.23	0.40*	
X_9 Cooperation	0.45	0.08	0.53**	0.06	0.52**	0.63**	0.69**	0.19	0.59**	0.17	0.05	0.22	0.58**

$^+$p<0.1　*p<0.05　**p<0.01

Table 6.2

Results of Polynomial Regression: Cooperation

Variables	Cooperation	
	Model 1	Model 2
Bonacich Power – Transaction	0.00^+	0.00^+
Ownership	0.06	0.07^+
Past Innovative Performance	0.00	0.00
Firm Size[4]	0.05^{**}	0.03^*
Identity Differentiation		0.02
Identity Integration		0.03^*
Identity Differentiation Squared		0.01
Identity Differentiation $\times$ Identity Integration		0.00
Identity Integration Squared		-0.00
R^2	0.32^{**}	0.68^{***}
$\triangle R^2$	0.32^{**}	0.36^{***}

Note:

1. Entries are unstandardized regression coefficients.

2. R^2 is the overall explained variance for the model including all predictors.

3. $\triangle R^2$ indicates the increase in explained variance in the polynomial analysis due to the addition of identity terms.

4. The logarithms of number of employees was used as an indicator of firm size.

5. $^+ p<0.1$ $^* p<0.05$ $^{**} p<0.01$ $^{***} p<0.001$

Table 6.3

Results of Binary Logistic Model: High Identity Integration and High Identity Differentiation

Variables	High Identity Integration and High Identity Differentiation	
	Model 1	Model 2
Board	1.70	2.25
Personnel Inflow	0.15	0.23
Bonacich Power – Transaction	0.03	0.04^+
Central Broker		0.03^+
Peripheral Broker		0.04^*
Model Fit		
-2 Log Likelihood	39.02	28.48
Cox & Snell R^2	0.16	0.38
Nagelkerke R^2	0.22	0.52

$^+ p<0.1$ $^* p<0.05$ $^{**} p<0.01$ $^{***} p<0.001$

Table 6.4

Results of Hierarchical Regression: Cooperation

Variables	Cooperation		
	Model 1	Model 2	Model 3
Bonacich Power – Transaction	0.19	0.25*	0.14
Ownership	0.22	0.29*	0.26*
Past Innovative Performance	0.09	0.13	0.09
Firm Size	0.60***	0.49***	0.44***
Central Broker		0.53***	0.32**
Peripheral Broker		0.32*	0.19^{+}
High Identity Integration and High Identity Differentiation			0.40***
R^2	0.41	0.67	0.77
Adjusted R^2	0.34	0.60	0.72

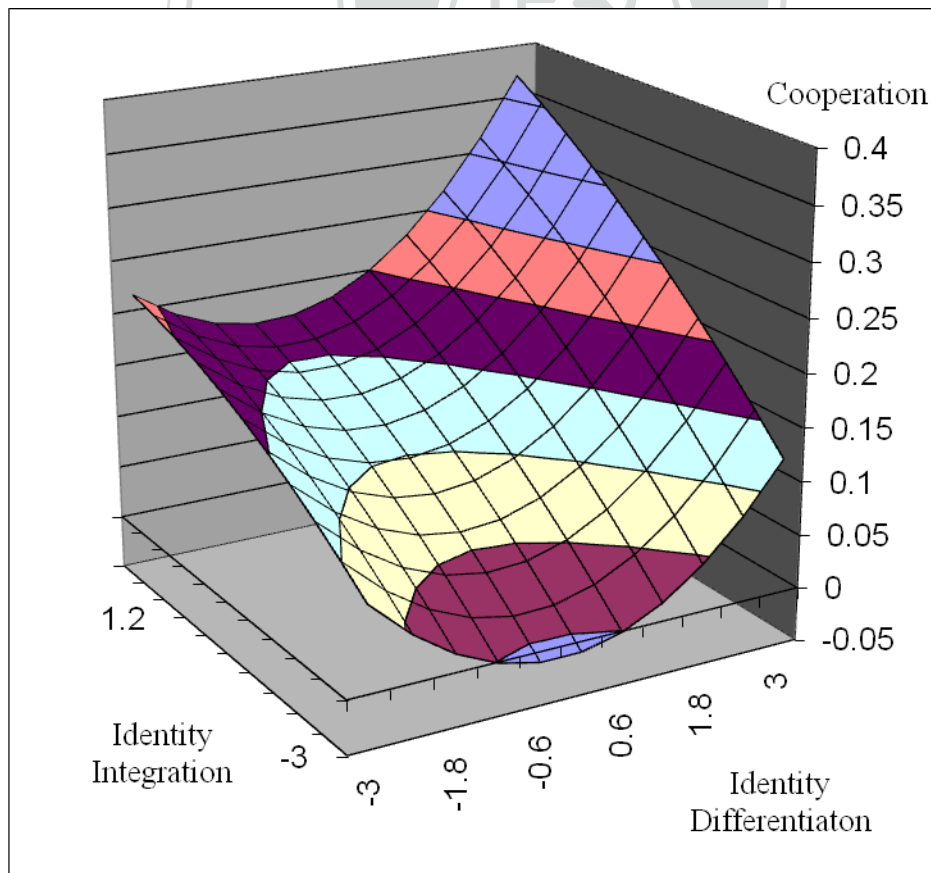$^{+}$p<0.1 *p<0.05 **p<0.01 ***p<0.001

Figure 6.1: Response Surface for Cooperation

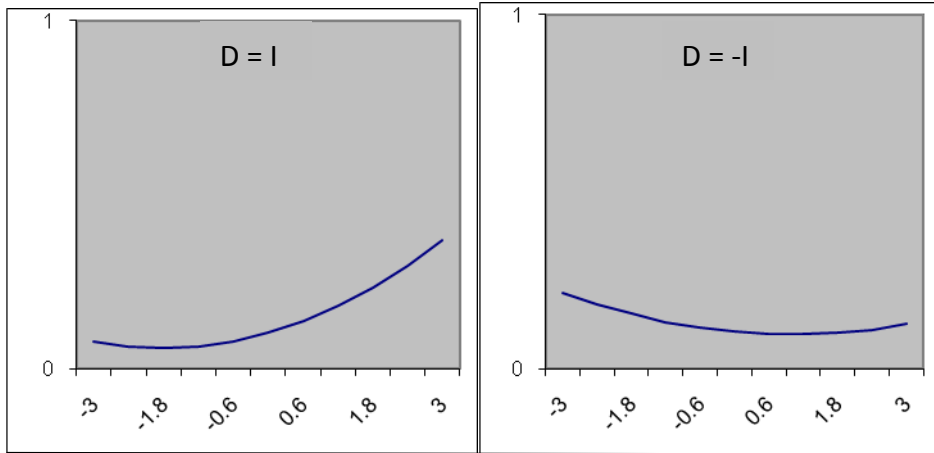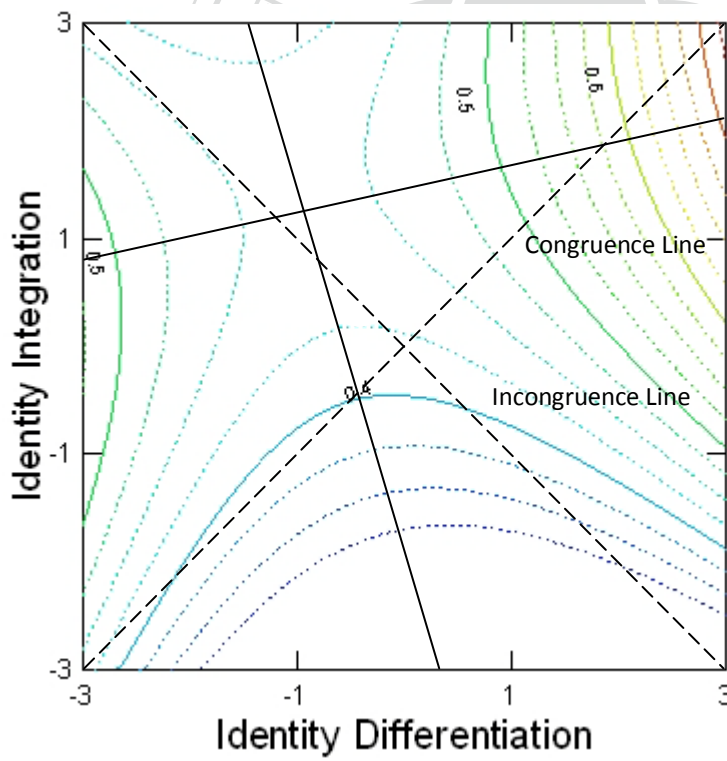Figure 6.2. The curvature along D = I and D = -I.

Figure 6.3. The contour plot of identity differentiation and identity integration.

CHAPTER 7. DISCUSSION AND CONCLUSION

SECTION 7.1. DISSCUSION AND RESEARCH CONTRIBUTIONS

In this thesis, I combine a case study and an empirical study. In the case study, I elaborate the process leading a merged firm to successfully resolve identity conflicts between it and other group members and successfully integrate into a business group. Although the feelings of hostility were serious in the initial stage of post-acquisition, the president of this merged firm still attempted to use friendship to build some informal connections between his subordinates and people in the headquarters or in sister affiliates. These informal connections gave people in the merged firm more chances to make a comparison and further desire for new definitions of the firm. Cutting off old links with some partners symbolized that this merged firm decided to abandon some outdated images and building up new links with other group members helped it find possible self. This connection transition not only poured some congruent values into this focal firm's identity pool but also helped this firm realize that some distinctive values were worth to be kept. Congruent values represented that this merged firm had some shared methods of behaving and helped it win others' recognition. Distinctive values represented that this merged firm had something for others to learn from it and attracted potential partners to actively build connections with it. Gradually, this merged firm resolved identity conflicts between it and other group members.

This case study offers insights for organizational identity theory. In the logic of organizational identity theory, people prefer to highlight similarities within groups and dissimilarities between groups (Rao, Davis, & Ward, 2000) to draw a clear boundary between "us" and "them". Following this logic, if a firm would like to win ingroup members' recognition or resolve identity conflicts, it should increase

similarities and decrease dissimilarities in its identities.   However, my findings give a different perspective.   Besides congruent values mentioned in traditional organizational identity literature, distinctive values which provide some advantages for others to learn from the focal firm also can help the focal firm win ingroup members' recognition and resolve identity conflicts.   In another word, increasing similarities and decreasing dissimilarities is not the only way out.   Furthermore, intuitively, integration and differentiation look like opposite ends of the same spectrum.   Namely, the sum of identity integration and identity differentiation is 1, but, in my findings, it is *not* a trade-off relationship between identity integration and identity differentiation.

To echo above case study, I conducted an empirical study to offer statistical supports.   Overall, empirical results offer substantial support for my predictions derived from qualitative study and theoretical framework.   In the case study, while this merged firm gradually poured more integrating elements into its identity pool to reach high identity integration, it also did its best to hold current distinctive values or develop new uniqueness to reach high identity differentiation at the same time. Those qualities not only offer a common system of communication which facilitates coordination but also provide some advantages for potential partners to imitate. Therefore, those integrating values and distinctive values helped the merged firm obtain more partners and move to a relatively central position.   While previous studies argue that firms can obtain more chances of cooperation through creating ties with the king in the network or effectively use resources to build connections with potential partners, the merged firm went through an identity transformation process to reach this goal.   This is a way which seldom be mentioned in previous studies.

However, who are more likely to achieve high identity integration and high identity differentiation?   I find that peripheral brokers, who are not constrained by a

certain group and have more flexibility, are more likely to have more integrating values and more distinctive values.   Besides, while most of previous studies argue that central actors are more likely to have more cooperation with others, I, counter-intuitively, propose that peripheral brokers have more likelihood to have more cooperation because they do not need to deal with redundant information or do time-consuming coordination tasks.   Moreover, while the association between brokerage and cooperation is validated in previous studies, I open a black box in this relationship – high identity integration and high identity differentiation plays a mediating role in this association.

This empirical study offers several insights for social network theory.   First, while previous studies try to find the antecedents of cooperation from resources or partner portfolio perspectives, I find a new way, identity transformation, which can help firms obtain more chances of cooperation.   Second, I find that, if firms can reach the peripheral broker position, they are more likely to reach high identity integration and high identity differentiation.   Third, while the relationship between centrality and cooperation is widely validated, I find that peripheral brokers (who are in the peripheral block) still have good chances to cooperate with others.   Fourth, I open the black box, high identity integration and high identity differentiation, in the relationship between brokerage and cooperation.

From a methodological perspective, I created two constructs, identity integration and identity differentiation.   Integration and differentiation are cornerstones of management and organization literature.   In prior research, it is common to measure integration using input/output tables (Harzing, 2000) or the degree of integration of functional department (Cording, Christmann, & King, 2008; Lawrence & Lorsch, 1967) and measure differentiation using the degree of differentiation of functional departments (Lawrence & Lorsch, 1967).   To more

accurately capture those two important constructs, through inductive and deductive approaches, I discovered multiple dimensions of integration and differentiation.

Furthermore, while numerous scholars encourage researchers to collect longitudinal data and data about invisible ties in business groups (Khanna & Rivkin, 2006) to extend our knowledge boundary, most studies still use data about visible ties (such as shareholding) to conduct empirical analyses due to the difficulty of accessing internal documents.   I not only collected longitudinal data about invisible ties (such as transaction relationships) from multiple sources for the sake of contributing to the theory, but also collected interview data and various kinds of secondary data to complete the qualitative case study for the sake of providing some managerial implications.   I hope that the success of this effort will encourage future studies on business groups.
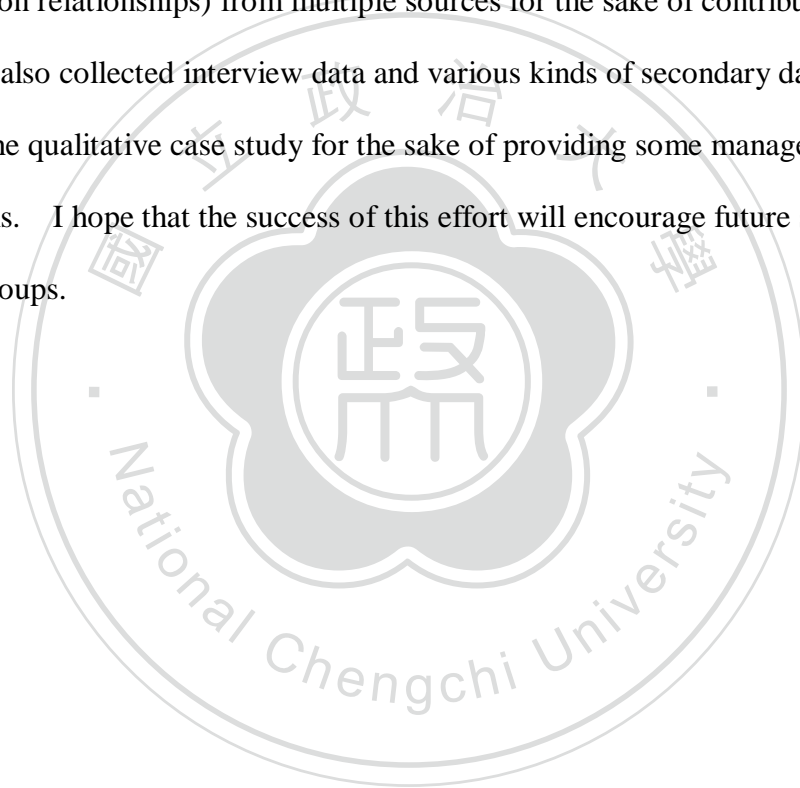
SECTION 7.2. MANAGERIAL IMPLICATIONS

I offer some managerial implications in this section.   First, in the case study, I find that the merged firm tried to find its new definitions through cutting off some old links and building up some new links.   Although creating new ties can help firms find out some solutions (ex. some possible definitions of themselves), cutting off old ties is also an important signal strategy which sends some signals to others and change others' perceptions about focal firms.   It makes me realize that the action of cutting off some relationships (which often be ignored by people) acts as a key when a firm tries to achieve success.   Moreover, the action of cutting off old links sometimes attracts more potential partners to actively connect to focal firms.   For example, the focal firm connects to firm A, but firm A has bad reputation in the industry.   The action of cutting off links with firm A represents that the focal firm draws a clear line between it and firm A and send a signal that the way of behaving and perceiving this world is different between them.   This action sometimes attract more potential partners (who do not want to make friends with firm A or A-like firms) to build ties with the focal firm.   For this reason, while managers focus on how to build ties with potential partners, they also need to examine current partner portfolios and select partners carefully.

Second, I find that increasing similarities between the acquired firm and the acquirer is not the only way to solve identity conflicts during the process of acquisition.   High identity integration and high identity differentiation sometimes can bring more benefits for firms.   It means that, though increasing integrating values can smooth the process of acquisition, managers in the acquirer can give the acquired firm some room to keep or develop some distinctive values which may be worth for the acquirer to learn.

Third, intuitively, firms had better to build ties with well-endowed firms or central firms to gain more resources or learn something from those "best" partners. However, I find that some firms in the peripheral positions still have some good ways of behaving or good values for others to learn from them. In addition, peripheral actors are not constrained by traditional social norms and have more chances to pioneer initially unpopular innovations. The implication is that top management team in the headquarters can set some internal rotation rule which give managers in the business group more chances to experience different ways of behaving and to keep common values (managers learn from the headquarters or central firms) and flexibility (managers learn from peripheral firms) at the same time.
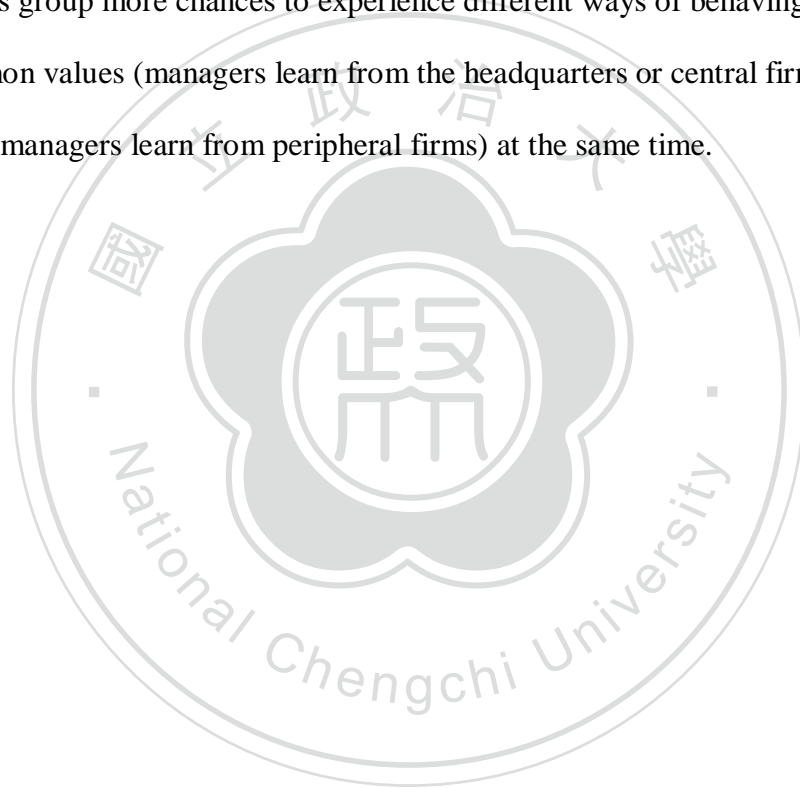
SECTION 7.3. RESEARCH LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Several areas of this thesis provide for opportunities for further research. In the case study, I did not enter the focal firm when the event happened. To avoid any problems owing to retrospective data (e.g., post-event rationalizations), I corroborated informants' accounts by different informants' statements or alternative sources. As a result, I collected not only interview data but also self-report data and archival data. All data collection was longitudinal. In spite of this effort, I still encourage future research to conduct case study when a specific event happened, for the sake of reducing concerns about post-event rationalizations.

In the empirical study, a fascinating avenue for future research, I feel, is to refine those identity integration and identity differentiation measures and apply them in different research settings. On the other hand, identity transformation can dramatically change the network picture. However, due to the limitation of data, I cannot test some arguments about how identity integration and identity differentiation affect the evolution of network. Therefore, more studies addressing the effect of identity shift on network evolution are needed.

Moreover, I used a dummy variable as an indicator of high identity integration and high identity differentiation. However, it is better to find some ways to maintain the raw data, instead of using dummy variable, when I do the statistical analysis about the mediating effect. Although I use raw data of identity integration and identity differentiation to test H1, researchers can find some ways to use raw data of these two constructs to test the mediating effect.

Furthermore, as I mentioned before, the action of cutting off old links may be an important corporate strategy. However, in this thesis, I focus on the process of

resolving identity conflicts and the relationship between network strategies and

organizational identities.   The process or outcomes of cutting off old ties are not the

focus of this thesis.   Therefore, I did not collect the data in Alpha Group and did not

investigate the process of deleting ties.   However, the strategies on how to drop

friends or whom the focal firm should drop are still interesting and worthwhile

research topics.

REFERENCES

Ahuja, G. 2000. The duality of collaboration: Inducements and opportunities in the formation of interfirm linkage. *Strategic Management Journal*, 21: 317-343.

Albert, S., & Whetten, D.A. 1985. Organizational identity. In L.L. Cummings & B.M. Staw (Eds.), *Research in organizational behavior*: 263-295. Greenwich CT: JAI Press.

Ashforth, B.E., & Mael, F. 1989. Social identity theory and the organization. *Academy of Management Review*, 14(1): 20-39.

Ashforth, B.E., & Mael, F. 1996. Organizational identity and strategy as a context for the individual. In A.C. Baum & J.E. Dutton(Eds.), *Advances in Strategic Management*: 17-32. Greenwich: JAI Press.

Ashmore, R.D., Jussim, L., Wilder, D., & Heppen, J. 2001. Conclusion: Toward a social identity framework for intergroup conflict. In R.D. Ashmore, L. Jussim, & D. Wilder (Eds.), *Social identity, intergroup conflict, and conflict reduction*: 213-249. New York: Oxford University Press.

Baron, R.M., & Kenny, D.A. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6): 1173-1182.

Baum, J., Calabrese, T., & Silverman, B. 2000. Don't go it alone: Alliance network composition and startups' performance in Canadian biotechnology. *Strategic Management Journal*, 21: 267-294.

Becker, H.S., & Carper, J.W. 1956. The development of identification with an occupation. *American Journal of Sociology*, 61: 289-298.

Becker, M.H. 1970. Sociometric location and innovativeness: Reformulation and extension of the diffusion model. *American Sociological Review*, 35(2): 267-282.

Borgatti, S.P., Everett, M.G., & Freeman, L.C. 2002. *UCINET 6*, Version 6.232. Analytical Technologies, Natick, MA.

Brickson, S.L. 2005. Organizational identity orientation: Forging a link between organizational identity and organization's relations with stakeholders. *Administrative Science Quarterly*, 50:576-609.

Burt, R.S. 2004. Structural holes and good ideas. *American Journal of Sociology*, 110(2): 349-399.

Burt, R.S. 2005. *Brokerage and closure: An introduction to social capital.* Oxford, England: Oxford University Press.

Cattell, R.B. 1966. The scree test for the number of factors. *Multivariate Behavioral Research*, 1: 245-276.

Churchill, G.A. 1979. A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16: 64-73.

Cooley, C.H. 1902. *Human nature and the social order*. New York: Scribners.

Cording, M., Christmann, P. & King, D.R. 2008. Reducing causal ambiguity in acquisition integration: Intermediate goals as mediators of integration decisions and acquisition performance. *Academy of Management Journal*, 51(4): 744-767.

Corley, K.G., & Gioia, D.A. 2004. Identity ambiguity and change in the wake of a corporate spin-off. *Administrative Science Quarterly*, 49: 173-208.

Datta, D.K., & Grant, J.H. 1990. Relationships between type of acquisition, the autonomy given to the acquired firm, and acquisition success: An empirical analysis. *Journal of Management*, 16(1): 29-44.

Dickson, P.H., & Weaver, K.M. 1997. Environmental determinants and individual-level moderators of alliance use. *Academy of Management Journal*, 40: 404-425.

Dukerich, J., Kramer, R., & Parks, J.M. 1998. The dark side of organizational identification. In D. Whetten & P. Godfrey (Eds.), *Identity in organizations: Developing theory through conversations*: 245-256. Thousand Oaks, CA: Sage.

Dutton, L.E., & Dukerich, J.M. 1991. Keeping an eye on the mirror: The role of image and identity in organizational adaptation. *Academy of Management Journal*, 34: 517-554.

Edwards, J.R. 1993. Problems with the use of profile similarity indices in the study of congruence in organizational research. *Personnel Psychology*, 46: 641-665.

Edwards, J.R. 1994. The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes*, 58: 51-100.

Edwards, J.R., & Rothbard, N.P. 1999. Work and family stress and well-being: An examination of person-environment fit in the work and family domains. *Organizational Behavior and Human Decision Processes*, 77(2): 85-129.

Eisenhardt, K.M., & Schoonhoven, C.B. 1996. Resource-based view of strategic alliance formation: Strategic and social effects in entrepreneurial firms. *Organization Science*, 7: 136-150.

Elsbach, K.D., & Kramer, R.M. 1996. Members' responses to organizational identity threats: Encountering and countering the Business Week rankings. *Administrative Science Quarterly*, 41: 442-476.

Elsbach, K.D. 1999. An expanded model of organizational identification. *Research in Organizational Behavior*, 21: 163-199.

Evan, W. 1965. Toward a theory of inter-organizational relations. *Management*

Science, 11: 217-230.

Fiol, C.M. 2002. Capitalizing on paradox: The role of language in transforming organizational identities. *Organization Science*, 13: 653-666.

Fiol, C.M., Pratt, M.G., & O'Connor, E.J. 2009. Managing intractable identity conflicts. *Academy of Management Review*, 34(1): 32-54.

Foreman, P., & Whetten, D.A. 2002. Members' identification with multiple-identity organizations. *Organization Science*, 13: 618-635.

Freeman, R.E. 1984. *Strategic management: A stakeholder approach*. Englewood Cliffs, NJ: Prentice-Hall.

Gibbons, D.E. 2004. Friendship and advice networks in the context of changing professional values. *Administrative Science Quarterly*, 49: 238-262.

Gioia, D.A., Schultz, M., & Corley, K.G. 2000. Organizational identity, image and adaptive instability. *Academy of Management Review*, 25: 63-81.

Gioia, D.A., & Thomas, J.B. 1996. Identity, image, and issue interpretation: Sensemaking during strategic change in academia. *Administrative Science Quarterly*, 41: 370-403.

Goffman, E. 1959. *The presentation of self in everyday life*. Garden City, NY: Doubleday.

Gould, J., & Fernandez, J. 1989. Structures of mediation: A formal approach to brokerage in transaction networks. *Sociological Methodology*: 89-126.

Granovetter, M. 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91:481-510.

Granovetter, M. 1995. Coase revisited: business groups in the modern economy. *Industrial and Corporate Change*, 4(1):93-140.

Guadagnoli, E., & Velicer, W.F. 1988. Relation of sample size to the stability of component patterns. *Psychological Bulletin*, 103: 265-275.

Gulati, R., & Gargiulo, M. 1999. Where do interorganizational networks come from? *American Journal of Sociology*, 104(5): 1439-1493.

Gulati, R., & Higgins, M.C. 2003. Which ties matter when? The contingent effects of interorganizational partnerships on IPO success. *Strategic Management Journal*, 24: 127-144.

Harzing, A.W. 2000. An empirical analysis and extension of the Bartlett and Ghoshal typology of multinational companies. *Journal of International Business Studies*, 31(1): 101-120.

Hinkin, T.R. 1998. A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1(1): 104-121.

Hitt, M.A., Harrison, J.S., Ireland, R.D., & Best, A. 1998. Attributes of successful and unsuccessful acquisitions of US firms. *British Journal of Management*, 9:

91-114.

Hoskisson, R.E., Hitt, M.A., Johnson, R.A., & Moesel, D.D. 1993. Construct validity of an objective (entropy) categorical measure of diversification strategy. *Strategic Management Journal*, 14: 215-235.

Hsu, S.C. 2000. Mr. Wong: Acquire the enemy. *Business Weekly*, 655: 108.

Ibarra, H. 1999. Provisional selves: Experimenting with image and identity in professional adaptation. *Administrative Science Quarterly*, 44: 764-791.

Ibarra, H., Kilduff, M., & Tsai, W. 2005. Zooming in and out: Connecting individuals and collectivities at the frontiers of organizational network research. *Organization Science*, 16(4): 359-371.

Isabella, L.A. 1990. Evolving interpretations as a change unfolds: How managers construe key organizational events. *Academy of Management Journal*, 33: 7-41.

Katila, R., Rosenberger, J., & Eisenhardt, K.M. 2008. Swimming with sharks: Technology ventures, defense mechanisms, and corporate relationships. *Administrative Science Quarterly*, 53: 295-332.

Kelman, H.C. 2006. Interests, relationships, identities: Three central issues for individuals and groups in negotiating their social environment. *Annual Review of Psychology*, 57: 1-26.

Khanna, T., & Palepu, K. 1997. Why focused strategies may be wrong for emerging markets. *Harvard Business Review*, 75: 41-51.

Khanna, T., & Palepu, K. 1999. The right way to restructure conglomerates in emerging markets. *Harvard Business Review*: 125-134.

Khanna, T., & Palepu, K. 2000. The future of business groups in emerging markets: long run evidence from Chile. *Academy of Management Journal*, 43(3): 268-285.

Khanna, T., & Rivkin, J.W. 2001. Estimating the performance effects of business groups in emerging markets. *Strategic Management Journal*, 22: 45-74.

Khanna, T., & Rivkin, J.W. 2006. Interorganizational ties and business group boundaries: Evidence from an emerging economy. *Organization Science*, 17(3): 333-352.

Kilduff, M., & Krackhardt, D. 1994. Bringing the individual back in: A structural analysis of the internal market for reputation in organizations. *Academy of Management Journal*, 37: 87-108.

Kilduff, M., & Tsai, W. 2003. *Social networks and organizations.* London: Sage.

Kumar, N., Stern, L.W., & Anderson, J.C. 1993. Conducting interorganizational research using key informants. *Academy of Management Journal*, 36: 1633-1651.

Kumbasar, E.A., Romney, K., & Batchelder, W.H. 1994. Systematic biases in social perception. *American Journal of Sociology*, 100: 477-505.

Lawrence, P.R. & Lorsch, J.W. 1967. *Organization and environment: Managing differentiation and integration*. Boston: Harvard Business School.

Leff, N.H. 1978. Industrial organizations and entrepreneurship in the developing countries: The economic groups. *Economic Development and Cultural Change*, 27: 661-675.

Liu, U.C. 2002. *Mr. Wong's life in BETA Co*. Taipei: Bookzone.

Lorrain, F., & White, H.C. 1971. Structural equivalence of individuals in social networks. *Journal of Mathematical Sociology*, 1: 49-80.

Luo, X., & Chung, C.N. 2005. Keeping it all in the family: the role of particularistic relationships in business group performance during institutional transition. *Administrative Science Quarterly*, 50: 404-439.

McDonald, M.L., & Westphal, J.D. 2003. Getting by with the advice of their friends: CEOs' advice networks and firms' strategic responses to poor performance. *Administrative Science Quarterly*, 48: 1-32.

Mead, G.H. 1934. *Mind, self and society*. Chicago: University of Chicago Press.

Miles, M.B., & Huberman, A.M. 1994. *Qualitative Data Analysis*. Thousand Oaks, CA: Sage.

Milton, L.P., & Westphal, J.D. 2005. Identity confirmation networks and cooperation in work groups. *Academy of Management Journal*, 48(2): 191-212.

Monteiro, L.F., Arvidsson, N., & Birkinshaw, J. 2008. Knowledge flows within multinational corporations: Explaining subsidiary isolation and its performance implications. *Organization Science*, 19(1): 90-107.

Mowery, D.C., Oxley, J.E., & Silverman, B. 1998. Technological overlap and interfirm cooperation: Implications for the resource-based view of the firm. *Research Policy*, 27: 507-523.

Mullins, N.C., Hargens, L.L., Hecht, P.K., & Kick, E.L. 1977. The group structure of cocitation clusters: A comparative study. *American Sociological Review*, 42: 552-562.

Noel, J.G., Wann, D.L., & Branscombe, N.R. 1995. Peripheral ingroup membership status and public negativity toward outgroups. *Journal of Personality and Social Psychology*, 68(1): 127-137.

Northrup, T. 1989. The dynamic of identity in personal and social conflict. In L. Kriesberg, T. Northrup, & S. Thorson (Eds.), *Intractable conflicts and their transformation*: 55-82. Syracuse, NY: Syracuse University Press.

Ozcan, P., & Eisenhardt, K.M. 2009. Origin of alliance portfolios: Entrepreneurs, network strategies, and firm performance. *Academy of Management Journal*,

52(2): 246-279.

Podolny, J.M., & Stuart, T.E. 1995. A role-based ecology of technological change. *American Journal of Sociology*, 100: 1224-1260.

Powell, W.W., Koput, K.W., & Smith-Doerr, L. 1996. Interorganziational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative Science Quarterly*, 41: 116-145.

Pratt, M.G. 2000. The good, the bad, and the ambivalent: Managing identification among Amway distributors. *Administrative Science Quarterly*, 45: 456-493.

Pratt, M.G., & Foreman, P.O. 2000. Classifying managerial responses to multiple organizational identities. *Academy of Management Review*, 25(1): 18-42.

Rao, H., Davis, G.F., & Ward, A. 2000. Embeddedness, social identity and mobility: Why firms leave the NASDAQ and join the New York stock exchange. *Administrative Science Quarterly*, 45: 268-292.

Ravasi, D., & Schultz, M. 2006. Responding to organizational identity threats: Exploring the role of organizational culture. *Academy of Management Journal*, 49(3): 433-458.

Reger, R.K., Gustafson, L.T., DeMarie, S.M., & Mullane, J.V. 1994. Reframing the organization: Why implementing total quality is easier said than done. *Academy of Management Review*, 19(3): 565.584.

Sanchez, R. 1995. Strategic flexibility in product competition. *Strategic Management Journal*, 16:135-159.

Shrout, P.E., & Fleiss, J.L. 1979. Intraclass correlations: Use in assessing rater reliability. *Psychological Bulletin*, 86: 420-428.

Stuart, T.E. 2000. Interorganizational alliances and the performance of firms: A study of growth and innovation rates in a high-technology industry. *Strategic Management Journal*, 21: 791-811.

Swann, W.B. 1987. Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology*, 6: 1038-1051.

Tajfel, H., & Turner, J.C. 1985. The social identity theory of intergroup behavior. In S. Worchel & W.G. Austin (Eds.), *Psychology of intergroup relations*: 7-24. Chicago: Nelson-Hall.

Tjosvold, D. 1988. Cooperation and competitive dynamics within and between organizational units. *Human Relations*, 39: 517-540.

Tsai, W., & Ghoshal, S. 1998. Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal*, 41: 464-476.

Tsai, W. 2001. Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44(5): 996-1004.

Uzzi, B. 1997. Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42:35-67.

Whetten, D.A., & Godfrey, P. 1998. *Identity in organizations: Developing theory through conversations*. Thousand Oaks, CA: Sage.

White, H.C., Boorman, S.A., & Breiger, R.L. 1976. Social structure from multiple networks. I. Blockmodels of roles and positions. *American Journal of Sociology*, 81: 730-779.

White, H. 1992. *Identity and control*. Princeton, NJ: Princeton University Press.

Wong, C.R. 2002. *Goodbye BETA Co*. Taipei: Linking Books.

Wooldridge, J.M. 2002. *Econometric analysis of cross section and panel data*. Cambridge, MA: MIT Press.

Wu, C.P. 1997. *A story about BETA Co*. Taipei: Linking Books.