Lingnan University

Digital Commons @ Lingnan University

Theses & Dissertations

Department of Management

2005

Effects of goal interdependence and social identity on departments and their relationships in China

Liyan WANG

Follow this and additional works at: https://commons.ln.edu.hk/mgt_etd

Part of the [Business Administration, Management, and Operations Commons](#)

Recommended Citation

Wang, L. (2005). Effects of goal interdependence and social identity on departments and their relationships in China (Doctoral dissertation, Lingnan University, Hong Kong). Retrieved from http://dx.doi.org/10.14793/mgt_etd.20

This Thesis is brought to you for free and open access by the Department of Management at Digital Commons @ Lingnan University. It has been accepted for inclusion in Theses & Dissertations by an authorized administrator of Digital Commons @ Lingnan University.

Terms of Use

The copyright of this thesis is owned by its author. Any reproduction, adaptation, distribution or dissemination of this thesis without express authorization is strictly prohibited.

All rights reserved.

EFFECTS OF GOAL INTERDEPENDENCE
AND SOCIAL IDENTITY
ON DEPARTMENTS AND THEIR RELATIONSHIPS IN CHINA

WANG LIYAN

PHD

LINGNAN UNIVERSITY

2005

EFFECTS OF GOAL INTERDEPENDENCE
AND SOCIAL IDENTITY
ON DEPARTMENTS AND THEIR RELATIONSHIPS IN CHINA

by

WANG Liyan

A thesis
submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

Lingnan University

2005

ABSTRACT

Effects of Goal Interdependence and Social Identity on Departments and Their Relationship in China

by

WANG Liyan

Doctor of Philosophy

Synergy among departments is increasingly considered vital for organizations to use their full resources to deal with threats and explore opportunities in the rapidly changing marketplace. Although valuable, developing synergy among departments is a difficult management challenge.

Departments within organizations often have their own business goals, yet the coordination of these goals is a precondition for overall organizational effectiveness. The need for goal coordination makes departments interdependent (Thompson, 1967), but this interdependence may become particularly problematic when the different departmental goals are incompatible (St. John & Hall, 1991).

Because of the value of cooperative goals for coordination, managers want to understand the conditions that lead people to believe their interests are basically positively associated in an organizational setting. In this study, we explore what factors increase the likelihood of having broad role identities, in which employees not only care for the goals characteristic of their own department, but also for goals of other departments.

This gives rise to the question of not whether, but under what circumstances, departments develop organizational cohesion. That is the key question that must be approached by theories of intergroup relations in order to successfully understand the dynamics of interdepartmental coordination, cooperation, and conjunction. In this study, we propose that the degree to which people have concern for the organizational goals is partly rooted in interdepartmental goal interdependence.

This study assumes that high departmental and interdepartmental effectiveness will be promoted by constructive cooperation between departments within organizations. In doing so, we connect the theory of cooperation and competition and social identity theory to test what interdepartmental structures will improve organizational effectiveness. Accordingly, we consider a congregation of structures by which coordination between departments can be managed.

The study suggests that interdepartmental relationships are influenced or determined by contextual structures, especially task interdependence, shared rewards,

and interdepartmental groups, operating first upon goal interdependence and social identity, with the effects on the interdepartmental coordination as subsequent outcomes.

In practice, if each group were producing its own product or service, there might be little need for significant intergroup coordination. In most cases, however, identifiable groups in organizations are producing only a segment of the organization's product or service. Coordination between such groups is a necessity. As professional firms that provide multiple services are well suited to exploring interdepartmental relationships (Tomasic, 1991; Eccles and Crane, 1988), this study collected the questionnaires from financial companies in mainland China.

As a result, we found that three factors promoted effective interdepartmental coordination and thus high organizational performance. First, coordination will be more effective if there are compatible or cooperative goals between departments. Second, coordination will be more effective if the departments are addressed and rewarded on over-all performance measures embracing the activities of the several departments. Third, interdepartmental coordination will be more effectively achieved and over-all organizational performance will be higher to the extent that departments have salient organizational identities rather than departmental identities.

This research has both theoretical and practical contributions. Theoretically, this study provides a test of whether interdepartmental structures promote synergy in financial companies in China. This study adds to research on cooperation and competition by identifying the interdepartmental structures as important antecedents to goal interdependence. This study adds to research on social identities by identifying the interdepartmental structures such as motivational and affective antecedents to organizational identities. This study also adds to research on intergroup relationships by developing the model to enhance the coordination relations among formal departments in organizations.

Practically, this study has implications for developing interdepartmental relationships in the company, especially in those financial companies in mainland China; this study also provides empirical evidence of the utility of the interdepartmental structures and suggests that cooperative goals and organizational identity mediate their effects on organizational effectiveness.

I declare that this is an original work based primarily my own research, and I warrant that all citations of previous research, published or unpublished, have been duly acknowledged.

WANG LIYAN

Date

CONTENTS

CHAPTER 1 INTRODUCTION	1
1.1 Research Problem	1
1.2 Approach to Intergroup Relationship in Organizations	2
1.3 Research Purpose	7
1.4 Organization of the Dissertation	10
CHAPTER 2 LITERATURE REVIEW	12
2.1. Interdepartmental structures for coordination among organizational departments	12
2.2 Theory of Cooperation and Competition	18
2.3 Social Identity Theory	21
CHAPTER 3 CONCEPTUAL MODEL AND HYPOTHESES	25
3.1 Conceptual Model	25
3.2 Hypotheses	26
3.3 Chinese Context	28
CHAPTER 4 METHODOLOGY	30
4.1 Participants	30
4.2 Measures	35
4.3 Pilot Study	38
4.4 Data Analysis	40
CHAPTER 5 RESULTS	50
5.1 Correlations	50
5.2 Hypothesized Model Testing	54
CHAPTER 6 DISCUSSION	67
CHAPTER 7 RESEARCH IMPLICATIONS	71
7.1 Practical Implications of This Study	71
7.2 Limitations of This Study	73
7.3 Future Research Directions	74
7.4 Conclusions	76
APPENDIX I Measures	77
APPENDIX II Actual Questionnaire for Departmental Members in English	80
APPENDIX III Actual Questionnaire for Departmental Managers in English	88

APPENDIX IV	Actual Questionnaire for Departmental Members in Chinese.....	94
APPENDIX V	Actual Questionnaire for Departmental Managers in Chinese.....	102
REFERENCE.....		109

LIST OF TABLES

Table 4.1 Data Collection information	31
Table 4.2: Results of Industry as Control Variable.....	32
Table 4.3 Sample Characteristics of Employees.....	33
Table 4.4 Sample Characteristics of Managers.....	34
Table 4.5 Reliability of Variables	38
Table 4.6 Scale Information in the Pilot Study	40
Table 4.7 Inter-rater Reliability of the Antecedent and Mediate Variables.....	42
Table 4.8 Tests of Significance of Managers and Employees Evaluation Differences	43
Table 4.9 Interdepartmental Structures with Factor Loadings.....	44
Table 4.10 Goal Interdependence and Social Identities Factors with Factor Loadings.....	45
Table 4.11 Effectiveness Factors with Factor Loading.....	46
Table 4.12 Confirmatory Factor Analysis of the Measurement Models.....	48
Table 5.1 Correlations among Variables.....	51
Table 5.2 Model Fit Indexes of the Hypothesized Model.....	58
Table 5.3 Model Fit Indexes of the Saturated Model	60
Table 5.4 Results of the Hypothesized Model and Saturated Model.....	60
Table 5.5 Model Fit Indexes of the Direct Effects Model	62
Table 5.6 Model Fit Indexes of the Goals-Identity Double Mediating Model	63
Table 5.7 Model Fit Indexes of the Identity-Goals Double Mediating Model	64
Table 5.8 Results of the Nested Model Analyses of Structural Model.....	65

LIST OF FIGURES

Figure 3.1 Hypothesized Model.....	25
Figure 5.1 the Coefficient of Hypothesized Model.....	55
Figure 5.2 the Coefficient of Saturated Model	59
Figure 5.3 Path Estimates of the Direct Effects Model.....	61
Figure 5.4 Path Estimates for the Goals-Identity Double Mediating Model	62
Figure 5.5 Path Estimates for the Identity-Goals Double Mediating Model	63

Acknowledgements

I would like to express my heartfelt gratitude particularly to my chief supervisor, Professor Dean Tjosvold, who has provided me with strong support, professional supervision and close concern throughout my study. I would like to thank him for his kindness, patience and encouragement. I was very lucky to have him as my supervisor and my gratitude is actually beyond words. I would also like to express my sincere gratitude to my co-supervisors, Professor Nyaw Mee-kau and Dr. James Pounder for their kind guidance and support in assisting the completion of my thesis.

I appreciate the financial support provided by Lingnan University, which helped me complete my study.

It is commonly known that collecting data is a great headache for most researchers. Luckily I have obtained the support of my friends. I am very grateful for the help of Miss WANG Jing, Mr. WAN Yifeng and Miss HAN Bing, for their support on collecting the data. I am also deeply grateful to Miss LIANG Xiangfen and ZHAO Zhen, for their help on the data processing and programming with their sincere friendship to me.

I would also like to thank Miss ZHANG Fang, LI Lin, GUO Yuanyuan and other friends, for their great encouragement and sharing the happiness and sadness during my research. Also great thanks to the staff in the management department, especially Fonsa and Fantasy, for their kindness and assistance during my stay at Lingnan University.

Last, I would like to give the deepest gratitude to my husband WANG Tun, my brother WANG Liguang and my mother Wang Dawei, for their love, encouragement and support. I hereby dedicate this piece of work to my beloved father, Wang Weizhi.

CHAPTER 1 INTRODUCTION

1.1 Research Problem

Departments are the building blocks of organizations. Based upon organizational characteristics, a department is defined as a group with individuals (1) who have significantly interdependent relations with each other, (2) who perceive themselves as a group, reliably distinguishing members from nonmembers, (3) whose group identity is recognized by nonmembers, (4) who, as group members acting alone or in concert, have significantly interdependent relations with other groups, and (5) whose roles in the group are therefore a function of expectations from themselves, from other group members, and from non-group members (Alderfer, 1977). Effective collaboration between departments is an important challenge for many organizations (Porter, 1980; Van Knippenberg, 2003). Mohrman, Cohen, and Mohrman (1995) have demonstrated that for group-based organizations to function effectively, integration and cooperation across work groups are vital. The ability to integrate resources among departments has been considered an enduring competitive advantage in part because it is so difficult to accomplish (Barney, 2001, 1991; Van Knippenberg, 2003).

Traditionally, the study of intergroup relations has been the domain of disciplines with a societal focus such as social psychology, sociology, and anthropology, and the study of intergroup relations has accordingly focused primarily on the relationship between societal groups such as ethnic groups rather than on organizational groups; as a consequence, there is relatively little research in intergroup relations in organizations. (c.f. Van Knippenberg, 2003). In addition, many previous studies focus on intragroup

processes, such as: how may group performance be enhanced? (e.g. Guzzo & Shea, 1992); how can cooperation and coordination between team members be optimized? (e.g. Saavedra, Earley, & van Dyne, 1993); how may interpersonal conflict be managed so that it is constructive rather than detrimental to group functioning? (e.g. Tjosvold, 1998). However, in practice, managers may not only be concerned with the facts as they do on effective functioning organizations relying on cooperation and good social relationships within groups, but also on cooperation and good relationships between groups. This study focuses on the coordination among the organizational departments.

The problem addressed in this study is whether interdepartmental structures facilitate interdepartmental integration. We focus on the situation where all departments within companies have cooperative goals and share the same organizational identity and that in turn result in departmental and interdepartmental effectiveness.

As professional firms that provide multiple services are well suited to exploring interdepartmental relationships (Tomasic, 1991; Eccles and Crane, 1988) and Chinese people as collectivists are thought to be particularly oriented toward their in-groups and biased against out-groups (Chen, Peng, & Saporito, 2002), this study collected the questionnaires from financial companies, such as securities companies, banks, funds and insurance companies in mainland China and tested the utility of proposed ideas to the collectivist culture of China.

1.2 Approach to Intergroup Relationship in Organizations

In order to understand what an intergroup relationship within an organization is, we should first know what the organizational group is.

1.2.1 Organizational group

The group in intergroup relationship has been discussed from a variety of

perspectives, such as the psychodynamic (Freud, 1921) and the social cognitive (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). As this study focuses on the organizational group, we chose to use an organizational conceptualization of the group in the organization.

An organizational group is a set of individuals who perceive themselves and whom nonmembers perceive as constituting an identifiable social aggregate within the organization (Brett & Rognes, 1986). A person may identify strongly with a group even if he or she does not personally like some or many of its members. The group may be a task force whose members are formally assigned to a variety of different functional areas, or a huge functional department like marketing, accounting, or research and development. The definitional requirement is that members and nonmembers recognize the group as a distinguishable social aggregate that exists within the organization.

Organizational groups can be further distinguished in terms of specific work tasks, functions, goals and values associated with them. If each group were producing its own product or service, there might be little need for significant intergroup coordination. In most cases, however, identifiable groups in organizations are producing only a specialized segment of the organization's product or service. Coordination between such groups is a necessity. Even organizations whose groups have traditionally provided distinct services - for example, securities firms with their separate brokerage areas, investment banking, and asset management require significant intergroup coordination in order to provide full service to customers in an increasingly competitive environment.

1.2.2. Intergroup Relationship

Intergroup relationship is a large field of study, covering coordination, collaboration, competition, negotiation, conflict, exclusion, mobility and discrimination

between groups. This study focuses on the attention given to intergroup coordination.

An intergroup relationship within an organization is a coordinated link or bridge between two distinct organizational groups. Work groups do not operate in a vacuum; they function in a context of interdependent relationships with other organizational groups. This interdependence requires groups to coordinate their efforts and to try to meet not only their needs but also those of other groups. Even when groups function relatively independently where their task performance is concerned, they may be interdependent for important organizational outcomes.

There are a number of social psychological theories, issues, concepts and processes that are fundamental to intergroup relation. From the social identity perspective, a group exists psychologically when two or more people define and evaluate themselves in terms of the defining properties of a common self-inclusive category (Hogg, 2001d, 2003). However it is important to recognize that group life involves more than self-definition, it involves social interactions, interdependent goals, social identities, and so forth. Consistent with this definition, this study adopts Sherif's classic and relatively widely accepted definition of intergroup relations:

Intergroup relations refer to relations between two or more groups and their respective members. Whenever individuals belonging to one group interact, collectively or individually, with another group or its members in terms of their group identifications we have an instance of intergroup behavior (Sherif, 1962, P. 5).

The justification for the theory at the intergroup level rather than the interpersonal level is the fact that group representatives act on behalf of the group, not themselves.

Intergroup Interaction

An intergroup interaction occurs “when individuals belonging to one group interact collectively or individually with another group or its members in terms of their group

identification” (Sherif, 1966). Most intergroup interactions occur between representatives of groups acting in the interests of their groups, not of themselves.

In theory, any member of a group is an equally viable representative of the group’s interests. In practice, group members frequently do not have equable values and interests. One factor may serve to reduce variability in representative behavior. The role of the group representative carries with it strong expectations about appropriate role performance. These expectations are shared by the role representatives’ fellow group members, group members, and members and representatives of the other group. So even when group representatives are representing their own interests and not that of the group, the other group’s members believe they are representing the group.

Intergroup interactions are exacerbated by the fact that distinct groups vary not only with respect to task interdependence and reward systems, but also in terms of goal interdependence (Lawrence & Lorsch, 1967; March & Simon, 1993).

Interdependent Goals

Intergroup interactions are driven by goals and by people’s perceptions of their relationship to one another’s recognition in achieving these goals. If two groups have a mutual goal and the goal is such that it can only be achieved if both groups work together then intergroup relations will be compatible and harmonious. If two groups have the same goal but the goal is such that one group can only gain at the expense of the other then intergroup relations will be competitive and unharmonious. At the interpersonal level, mutually exclusive goals lead to interpersonal conflict and group dissolution, whereas super homogeneous goals lead to interpersonal harmony, group construction and group cohesion. It was deduced by analogy that at the intergroup level, if there are super homogeneous goals among departments, this leads to intergroup

harmony and organizational cohesion.

This idea was initially tested by Sherif and his associates in a classic series of field experiments at boys' camps in the United States (Sherif, Harvey, White, Hood, & Sherif, 1961; Sherif, 1966). In these studies, Sherif manipulated goal relations between individuals and between groups and was able to create cohesive groups, intergroup conflict and hostility, and to some extent intergroup harmony. The idea that goal interdependence determines the complexity of intergroup behavior continues to be a meaningful theme, for example, in the work of Morton Deutsch (1973), in the field research of Brewer and Campbell (1976), and in the research of Insko and associates (Insko et al., 1992). Goal interdependence plays a critical role in intergroup behavior.

Social Identities

The social identity perspective argues that people define and evaluate themselves in terms of the groups to which they belong – groups provide people with a collective self-concept, a social identity, and people have as many social identities as the groups to which they feel they belong. The social identity perspective has a number of integrated conceptual components, for example, a focus on the structure of self and identity (e.g., Turner, 1982), on social comparison processes (e.g., Hogg, 2000a), on self-enhancement motivation (e.g., Abrams & Hogg, 1988), on uncertainty-reduction motivation (Hogg, 2000b), on social influence processes (e.g., Turner, 1991), on the role of beliefs about intergroup relations (Tajfel & Turner, 1986), and on the generative role of the categorization process (Turner et al. 1987).

Because social identities define, prescribe and evaluate which one is and how one should think, feel and act as a member of the group, social identity is clearly differentiated from personal identity, which is tied to interpersonal relationships and

characteristic personal traits (Hogg, 2001c; Hogg & Williams, 2000; cf. Brewer & Gardner, 1996). For social identity theory, group behaviors occur when social identity is the salient basis of self-conceptualization.

The social identity perspective has made a great impact on intergroup relationships, and has also contributed significantly to the research on group processes in general (Moreland, Hogg, & Hains, 1994). Some of the most recent developments in social identity research are covered in the following edited books: Abrams and Hogg (1999), Capozza and Brown (2000), Ellemers, Spears, and Doosje, (1999), Hogg and Terry (2001), Worchel, Morales, Paez, and Deschamps (1998).

1.3 Research Purpose

The development and use of theories of intergroup relations is very uneven. On the one hand, the theme of intergroup relations is vigorous in social psychology, with the prominence of social identity theory. However, while social identity theory has been applied to a range of social issues, applications to the intergroup relationships in organizations are rare. Organizational psychologists devote more research attention to intragroup relations than to intergroup processes (Guzzo & Shea, 1992).

1.3.1 Why Should We Care for “Intergroup Relations” in Organizations?

Intergroup relations not only concern the relationship between different organizational groups but also reflect upon the relationship between organizational groups and the organization as a whole (Van Knippenberg, 2003). Tensions between organizational groups may focus the individual on his/her own group and turn attention away from the organization as a whole, to the detriment of organizational identity and the willingness to exert oneself for the organization's interest (Kramer, 1991). Thus, from the perspective of employee relationships with the organization as a whole,

intergroup relations are a core concern.

Management theorists have argued that intergroup relations in organizations hold great potential for coordination as groups are interdependent for task completion and need to rely on each others' specific skills and expertise (Brett & Rognes, 1986; Blake, Shepard, & Mouton, 1964). Indeed, empirical and anecdotal evidence suggests that intergroup tensions are typical of many organizations (Alderfer, 1987; Blake, Shepard, & Mouton, 1964; Kramer, 1991); some researchers have argued that intergroup relations are more important for organizational functioning than individual behavior. Intergroup relations therefore are a core concern for organizations.

In investigating interdepartmental relations in organizations, departments are assumed as the basic structural building blocks of organizations and those relations between departments in organizations must be managed.

1.3.2 Why Select Financial Companies as the Sample?

As departments typically produce only specialized segments of the organization's products and services, it is a necessity that they coordinate with each other. However, for the financial organizations studied in this dissertation whose departments provide relatively distinct services, for example, independent brokerage, investment banking, and asset management, there might be less need for significant interdepartmental coordination to achieve their own departmental business goals. However, in order to provide full service to customers as a one-station shop, some interdepartmental coordination is required.

To increase market share, most financial companies established departments or offices all over the country, which has strained the management of these companies. The strain produced calls for more effective management from both within and outside the

companies.

With China's entry to the world trade organization (WTO), more and more foreign financial companies are establishing subsidiaries in mainland China which give local Chinese firms more fierce competition. Decreasing margins are another source of pressure for more attention to management. Under such a circumstance, many financial companies are seeking ways to achieve effectiveness and performance improvement, such as decreasing cost, business innovation and organizational change. One way to reach such goals is to strengthen the effectiveness and efficiency of inter-departmental coordination. As professional firms that provide multiple services are well suited to exploring interdepartmental relationship (Tomasic, 1991; Eccles and Crane, 1988), this study selected the financial companies as the sample to do the research.

1.3.3 Purpose of the Study

The purpose of this study is to identify the interdepartmental structures which motivate departments to have cooperative goals and develop organizational cohesion, which in turn result in high departmental and interdepartmental effectiveness.

Departments may compete for scarce resources within the organization, such as office space, lab time, personnel, or organizational rewards (e.g. Pfeffer & Salancik, 1977; Pondy, 1967). Such situations invite interdepartmental conflict to the detriment of interdepartmental relations. This may pose a threat to organizational functioning for two reasons. First, competitive orientations between departments may stand in the way of more constructive solutions for conflicts of interests, which are more likely when departments have a more cooperative orientation toward each other (Pruitt & Carnevale, 1993). Second, competitive or disrupted interdepartmental relations, stimulated by opposing interests may spill over into other areas of interdepartmental interactions, such

as the need to coordinate task efforts, or may feed into intradepartmental processes when different departments collaborate in cross-functional teams (e.g. project teams, management teams). This is not to say that interdepartmental competition is necessarily always destructive for organizations. Erev, Bornstein, and Galili (1993) and Bornstein & Erev (1994) have argued that intergroup competition may promote intragroup cooperation and performance.

Organizational structures do not necessarily promote interdepartmental coordination and cooperation. Researchers have argued that strong corporate values can facilitate synergy by inducing people throughout the organization to feel part of its common vision (Kouzes & Posner, 1995; Pfeffer, 1994). Researchers have also proposed that interdepartmental structures such as cross functional teams can help members of diverse departments integrate their efforts (Keller, 2001). Moreover, even in the absence of the need for interdepartmental collaboration or interaction, a cooperative orientation toward other groups may be desirable.

This study argues that the effects of interdepartmental structures can be understood in terms of how departments believe their goals are related and that this goal interdependence in turn affects how they coordinate with each other. Specifically, the interdepartmental structures of task interdependence, shared rewards, and interdepartmental groups are expected to strengthen cooperative goals and salient organizational identities that in turn result in synergy between departments in organizations in China.

1.4 Organization of the Dissertation

This thesis is organized as follows:

Chapter 1, the current chapter, provides an overview of the research questions and

the settings. Chapter 2 presents the related background theories, key concepts and empirical findings in the literature. Through reviewing the cooperation and competition theory and social identity theory, the second chapter provides a foundation for exploring the roles of goal interdependence and social identity on effective departments and their relationships. Chapter 3 puts forward five hypotheses of this study. Chapter 4 describes the methodology used by this study. An in-depth interview was carried out before the main survey. Chapters 5, 6 and 7 present a detailed discussion of the research results, implications, limitations and future research directions.

CHAPTER 2 LITERATURE REVIEW

2.1. Interdepartmental Structures for Coordination among Organizational Departments

Interdependence at the department level of analysis is the extent to which each department is dependent upon one another to perform their departmental jobs. Mahr (1971) defined interdependence as the extent to which department members have one – person jobs and the degree of collaboration required among department members to produce or deliver the finished product or service of the department. Thus, the fewer one-person jobs there are and the greater the degree of task-related collaboration, the greater the interdependence.

Thompson (1967), Kiggundu (1981), McCann and Ferry (1975), Victor and Blackburn (1987) have developed conceptual frameworks for classifying interdependence configurations. A strong corporate culture has been hypothesized to foster the synergy that builds an effective organization able to overcome obstacles and create new competitive advantages (Kouzes & Posner, 1995; Pfeffer, 1994). With the affirmation of coordination structure, employees are expected to exchange ideas and abilities with each other regardless of departmental affiliation.

Interdepartmental structures have been thought to be critical antecedents to interdepartmental coordination among departments. Walton (1986) argued that management structures based on the interdepartmental relationships included integrative mechanisms, consultative and problem-solving mechanisms, roles and positions, decision-support systems, measurements, rewards, communication systems and levels of hierarchy and spans of responsibility. Case studies and other research have documented that forming task forces, cross functional groups, new products, and other teams can

help overcome traditional barriers to inter-department coordination (Keller, 2001; Pelled & Adler, 1994; West, 2002). According to the result of the pilot study, this study investigates the structures of task interdependence, shared rewards and interdepartmental groups.

2.1.1 Task Interdependence

Task interdependence is the extent to which two units depend upon each other for assistance, information, compliance, or other coordinative acts in the performance of their respective tasks (Brass, 1985; Kiggundu, 1983; Thompson, 1967). As this study focuses on the departmental level (e.g., Campion et al., 1993, 1996; Jehn, 1995; Mohr, 1971; Slocum & Sim, 1980; Saavedra, et. Al., 1993), it was considered as a characteristic of the department as a whole. Dutton and Walton (1966) indicate that task interdependence provides an incentive for collaboration over interdepartmental issues. In the currently changing market place, professional specialization proceeds. A result of this increased specialization is that tasks requiring intensive coordination cannot be grouped into a single functional unit (McCann and Galbraith, 1981).

People are task interdependent when they must share materials, information, and ideas to complete their tasks (Cummings, 1978; Susman, 1976). Task interdependence is likely to vary within an organization; sales and marketing departments typically have considerable task interdependence whereas logistics and research and development have less. Indeed, some organizations structure work so that departments recognize that they very much need the assistance of others whereas in other organizations departments are expected to operate autonomously without being restricted by the need for the information and ideas of other units.

Thompson (1967) argues that there are three kinds of task interdependence that

exist in an organization- pooled, sequential, and reciprocal interdependence. Pooled interdependence describes a relationship where each department (operating relatively independently) contributes to the whole. Sequential interdependence describes a direct but asymmetrical dependence that exists between departments (a series of contributions). For example, it is often the type of relationship that develops when one department provides materials or products to another (a one-way flow or series of contributions). Reciprocal interdependence is used to describe a two-way interrelationship, often where the outputs of one department become the inputs to another.

In financial companies in mainland China, task interdependence is pooled as departments do not rely on each other's output. Within securities companies, for example, analysts purport to provide objective and independent advice to investors (individuals and institutions) by rating firm securities a "buy, hold, or sell". Concurrently, the investment banking department within the same securities company competes to undertake capital offerings and mergers and acquisitions (M&A) for many of these same firms. These two different departments provide distinct services to the same customers. If they may share the resources and information with each other, they could be more effective and provide full service to customers as a one-station shop with other departments.

Recent research has identified procedures used to coordinate work. Coordination between such departments is generally managed with the development of rules or structures (Ensign, 1998). With increases in task interdependence, departments continued to rely on rules, plans, schedules, policies, and other impersonal coordination, but more frequently used interpersonal and group discussions. In addition, Lawrence and Lorsch (1967) and Galbraith (1973) have argued that task uncertainty increases the need

for coordination. When uncertainty is low in that employees have most of the information to complete their tasks, they can rely on standard devices of rules and procedures. Conversely, when task uncertainty is high, more coordination is needed.

Recently, researchers have used the concept of task interdependence to examine the effects of how tasks are structured on interaction (Saavedra, Earley, & Van Dyne, 1993; Van der Vegt, Emans, & Van de Vliert, 1998). Task interdependence refers to the degree of task-required cooperation in an organization. When task interdependence is low, departments can carry out their roles relatively independently of others. When task interdependence is high, however, departments must closely coordinate their actions and share resources for attaining task completion. Thus, departmental tasks differ in their demands for coordination action among departments. This study assumes that task interdependence influences effectiveness by enhancing cooperative goals and social identity.

2.1.2 Shared Rewards

Rewards management is the process of developing and implementing strategies, policies and systems which help the organization to achieve its objectives by obtaining and keeping the people it needs, and by increasing their motivation and commitment. (Michael, 1984). To motivate the groups to coordinate and cooperate with each other, organizations could develop the performance-related pay system which explicitly links financial rewards to individual, group and corporate performance, or to any combination of these three (Armstrong & Murlis, 1991).

Since the 1940s, a number of studies have been performed to investigate the effect of financial incentives on organizational performance. Throughout the 1980s, systems of performance related rewards became extremely popular as a method of improving and

maintaining organizational performance through the improved performance of employees (Hume, 1988). Rewards are important determinants of behavior in organizations, and studies comparing department and individual rewards suggest that when rewards are given to the departments rather than to individuals, individuals are more apt to share information and assistance (Tjosvold, 1984). Of concern in this study are rewards shared by the groups on the basis of the achievement of the organization.

For a business, the aim of reward distribution should help achieve sustainable competitive advantage. Establishing a correlation between rewards and the performance of groups helps develop work systems based on collective performance (team work and cooperation). The organization can reward groups according to their own performance, the performance of their cooperation and the performance of the organization.

Rewards for group achievements can affect the coordination of groups. Coordination is affected by the way rewards earned by the group are distributed. Although there is doubt about the effectiveness of money as a motivator, some organizations provide financial rewards to individuals and groups as a means of paying them according to their contribution. Although distributions that induce competition among groups (for example, the “best” group receives the entire reward) may be dysfunctional when tasks demand a high level of coordination, the proper management of rewards for group performance can be expected to facilitate effectiveness.

Unfortunately, rewards for group performance generally are not very common in organizations. Incentive pay plans that reward group performance are used very infrequently in comparison to those that reward individual or organization-wide performance (Nash and Carroll, 1975). This study assumes that the establishment of shared rewards structures may build into organizational ways of rewarding group

performance. Although the conflict may be inherent in the total task, the reward system designed by management can serve to help organizations manage their conflicts: the more the evaluations and rewards of higher management emphasize the separate performance of each department rather than their combined performance, the more competition and the less coordination.

2.1.3 Interdepartmental Group

Researchers argue that the use of teams is a major way that organizations are adapting to the rapidly changing environment (Colquitt, Hollenbeck, Ilgren, Le Pine, & Sheppard, 2002). In addition to new product teams and cross-functional teams, organizations are resources in a wide variety of alliances.

Interdepartmental groups consist of members from different departments within the company. In many cases, the interdepartmental group is formed to achieve a common purpose, for example, improving the products or solving difficult problems concerning the company. If effective, the interdepartmental group may achieve greater results than departments working alone as it provides the advantages of multiple sources of skills, information and perspectives owning to different departments.

Interdepartmental groups would seem to be important supplements to take interdependence and shared rewards. With a specific, common task, people from different departments appreciate that by working together they can contribute significantly to the organization. They were given a specific assignment and realized that top management believes these tasks are highly visible priorities. With this clear direction, employees understand that they have a common, important objective and that, if their group succeeds, they will be recognized and rewarded. They also have opportunities to discuss issues directly with each other and develop concrete plans for

how they can work together.

However, the use of interdepartmental groups can result in such negative outcomes as increased cost (Aitsahlia, Johnson, & Will, 1995); felt stress and lower group cohesiveness (Donnellon, 1996; Jehn, 1997; Swamidass & Aldridge, 1996). And although the use of interdepartmental groups has popularly developed in research and product development settings, Denison and colleagues (1996) noted that empirical research on the subject has lagged considerably.

This study proposes that interdepartmental groups are useful devices for stimulating cross-functional work mediated by cooperative goals and salient organizational identity. But how do these structures have their effects? This study argues that the theory of cooperation and competition and social identity theory are useful for understanding how interdepartmental structures can promote departmental and interdepartmental effectiveness. The theory of cooperation and competition also suggests that obstacles can interfere with interdepartmental work. The next section uses theory and research indicating that conclusions about goal interdependence and social identifications can powerfully affect departments and their relationships.

2.2 Theory of Cooperation and Competition

Theory of cooperation and competition was initially developed by Morton Deutsch (1949a, 1949b, 1973). Deutsch (1949b, 1973) assumed that groups and individuals pursue their self-interests by developing and striving to reach their goals and how people believe their goals related greatly affects the dynamics and consequences of their relationship. However, the pursuit of self-interests does not exclude the development of effective collaboration and relationships. Deutsch argued that it was the ways goals were perceived to be structured that determine how groups and individuals interact and these

interaction patterns in turn determine outcomes (Deutsch, 1973; Johnson & Johnson, 1989; Johnson, Maruyama, Johnson, Nelson & Skon, 1981; Stanne, Johnson, & Johnson, 1999).

Goals may be structured so departments promote the success of others or obstruct the success of others. Intergroup research suggests that the kind of goal interdependence affects relations between departments (Tajfel, 1982). In cooperative goal interdependence, people believe their goal achievements are positively correlated; they can reach their goals to the extent that others also reach their goals. In competition, people believe their goal achievements are negatively correlated; each perceives that the achievement of one prohibits or at least makes it less likely that others will achieve their goals. With independent goals, achievements are thought to be unrelated.

Whether departments understand that their own goals are related cooperatively or competitively critically affects their expectations, interaction, and outcomes. With cooperative goals, people believe that as one department moves toward goal attainment, others move toward reaching their goals. They understand that as others' goal attainment helps them, they can be successful together. As a consequence, departments want each other to perform effectively and seek outcomes that are beneficial to all those with whom they are cooperatively linked. They expect each other to use their abilities to work for mutual benefit (Lewicki, McAllister, & Bies, 1998).

Research has also found that cooperative goals promote open-mindedness in conflict (Deutsch 1973, Tjosvold, 1998). Experimental research has documented that people with cooperative goals take on direct discussions and full exchange of views that lead to the understanding of each other's views and perspectives (Tjosvold, 1982; Tjosvold & Deemer, 1980; Tjosvold & Johnson, 1977; Tjosvold & Sun, 1998; Tjosvold,

Johnson, & Fabrey, 1980; Tjosvold, Johnson, & Lerner, 1981). Cooperators have been found to take each other's perspective, directly discuss their opposing views openly, and try to integrate them for improving the effectiveness.

In competition, departments work against each other to achieve a goal that only one or a few can attain. They withhold information and ideas as they pursue their own goals and may even be tempted to obstruct the goal progress of others (Deutsch, 1973; Johnson & Johnson, 1989; Johnson, Maruyama, Johnson, Nelson & Skon, 1981; Stanne, Johnson, & Johnson, 1999). They want to win the competition and outdo each other. Thus, departments seek an outcome that is self beneficial but detrimental to all others in the organization. Studies indicate that avoiding conflict reinforces a competitive approach whereas a more open way complements coordination (Barker, et al, 1988; Tjosvold, 1982).

With independent goals, departments expect that others will work for their own goals with little regard for the goals of others. Having few incentives to use their abilities to assist each other, they withdraw intention and become indifferent to the interests of others. Thus, departments seek an outcome that is self beneficial without concern for the outcomes of others. Generally, independence has been found to have similar though not as strong effects on interaction and productivity as competition (Deutsch, 1973; Johnson & Johnson, 1989; Johnson, Maruyama, Johnson, Nelson & Skon, 1981).

Interdepartmental coordination structures have been thought to bind organizational departments together and thus would appear to be important antecedents to cooperative goals. Intra-organizational group members are given a common task that they are to work together to accomplish. With strong task interdependence, departments should

recognize that they need each other's ideas, assistance, and other resources if they are to succeed.

However, researchers have documented that coordination structures do not inevitably develop coordination among departments and have identified significant barriers. Indeed, the theory of cooperation and competition suggests that departments may conclude that their goals are negatively or independently as well as positively related.

Forming a team and scheduling meetings does not mean that departmental representatives will feel cooperatively interdependent and openly discuss issues and solve problems (Jassawalla & Sashittal, 1999). Because task interdependent departments need the information from each other does not mean that they exchange the information.

Although interdepartmental structures lay the groundwork for departmental and interdepartmental effectiveness by strengthening cooperative goals, they do not inevitably do so. Departments may conclude that their goals are competitive and independent; with these goals, they are apt to confront major obstacles to coordination and are unlikely to integrate their efforts fully.

When interdepartmental goals are partially incompatible, and department members face the dilemma between serving their own department's goals and the overall goal of organizational effectiveness, interdepartmental structures may help departments to develop win-win solutions that meet the needs and desires of all departments involved (Alper, Tjosvold, & Law, 1998; Blake & Moulon, 1970; Lax & Sebenius, 1986).

2.3 Social Identity Theory

Social identity theory (SIT), formalized by Tajfel and Turner (1979, 1986), has been the most important impetus for social psychological research on intergroup

relations since the late 1970s (Messick & Mackie, 1989). This theory attempts to explain relations between groups from a group perspective. This characteristic sets it apart from a number of other major social psychological theories. The theory assumes that individuals are motivated to achieve a positive social identity, defined as “that part of an individual’s self-concept which derives from his knowledge of his membership in a social group together with the value and emotional significance attached to that membership” (Tajfel, 1978).

Social identity theory originates in the study of intergroup relations in nonorganizational contexts. Despite the fact that SIT provides a well-articulated theoretical framework for the study of intergroup relations in organizations, SIT research on intergroup relations in organizations has remained sparse (c.f. Van, Knippenberg, 2003).

In fact, the use of organizational resources and contributions to organizational goals often has a social dilemma character. Social dilemma situations confront departments with a choice between two alternatives, each of which is problematic. On the one hand, because resources are finite, each department should exercise some degree of restraint (cooperate) in order to conserve and create resources for future use. On the other hand, departments realize that their own efforts to conserve resources will have little impact if others do not do the same (Kramer, 1991). Thus, in the absence of assurances that others will reciprocate, departments have little incentive to cooperate themselves. Meanwhile, solely serving department interests is to the detriment of the organization as a whole, and thus ultimately to the detriment of the departments constituting the organization. Mohrman and colleagues (1995) found that if departments had greater commitment to the department’s success than to the organization’s success, this led to a higher concern

on increasing their own resources at the expense of other groups.

Kramer's (1991) analysis in terms of social dilemmas suggests that rather than viewing interdepartmental relations simply in terms of conflicting department interest, it might be better to consider them in terms of the willingness to cooperate with other departments to serve the organization's interests. Stryker (1968, 1980, & 1982) has posited that the salience of identity is premised on the degree to which one is committed to the role giving rise to the identity. People with the same role identities may behave differently in a given context because of differences in identity salience (e.g. Callero, 1985; Thoits, 1991). For example, one person may work on the weekend while another may spend time with the children, although both may have a "parent" role identity.

The difference in identity salience may result in different behavior (Serpe, 1987). Within the organization, when the departmental identity is salient, departments will be motivated to compete for organizational resources rather than to cooperate for the organizational interest (Turner, 1975). In contrast, when the organizational identity is salient, departments will both value the organizational interests more (Ashforth & Mael, 1989; Van Knippenberg, 2000) and be more motivated to cooperate with other departments, because they are seen as part of a larger ingroup (Gaertner et al., 1993).

Meyer, Allen, and Smith (1993) argued that organizational and departmental identities are relatively independent constructs and that each contributes uniquely to the understanding of, and ability to predict, work behavior. If a perceptual shift is established from seeing the members of the other department as an outgroup to seeing the members of the other department as part of a larger, superordinate ingroup (e.g. the organization), the positive regard for ingroup members will extend to members of the other department, and the willingness to cooperate with the other department is

enhanced. Here the question is raised: how to make members perceive salient organizational identity and how to establish the cooperative relations among the groups within the organization.

In addition, a variety of antecedents of social identity have been identified, including personal characteristics, structural characteristics, job-related characteristics, and work experiences (Mowday, Porter, & Steers, 1982). However, this study tries to identify the interdepartmental structures, especially task interdependence, shared rewards and interdepartmental groups as the antecedents to the SIT.

This study uses the theory of cooperation and competition and social identity theory to develop a model of effective relations between departments to be tested in financial companies in mainland China.

CHAPTER 3 CONCEPTUAL MODEL AND HYPOTHESES

3.1 Conceptual Model

An important proposition of theoretical models on interdepartmental relationships is that the likelihood of departmental and interdepartmental effectiveness is increased when departments are not only concerned about the goals of their own department, but also about the goals of other departments (Blake & Mouton, 1970; Rubin et. Al, 1994; Thomas, 1976), and perceive salient organizational identity rather than departmental identity. Interdepartmental structures, especially task interdependence, shared rewards, and interdepartmental groups may help departments believe they have cooperative goals and perceive the organization as a superordinate identity.

Figure 3.1 Hypothesized Model

This study posits that task interdependence, shared rewards and interdepartmental groups as antecedent variables, cooperative goals, competitive goals, independent goals, departmental identity and organizational identity as mediating variables; and departmental effectiveness and interdepartmental effectiveness as outcome variables. Figure 3.1 describes the hypothesized model.

3.2 Hypotheses

Research is needed to understand how interdepartmental structures have their effects on departments and their relationships. This study tests a model linking interdepartmental structures, goal interdependence, social identity, departmental effectiveness and interdepartmental effectiveness (Figure 3.1).

Five basic predictions were generated from the hypothesized model. The first prediction yields a set of hypotheses according to which task interdependence is expected to promote high levels of cooperative goals and low levels of competition and independence, dominant organizational identity and secondary departmental identity. Thus,

H1a: The extent to which organizations have task interdependence, departments conclude that they have high levels of cooperative goals and low levels of competitive and independent goals.

H1b: The extent to which organizations have task interdependence, departments perceive that they have high levels of organizational identity and low levels of departmental identity.

The second hypothesis set predicts that shared rewards make departments conclude that they have cooperative goals rather than competitive goals and independent goals; and to recognize that they have salient organizational identity rather than departmental

identity. Therefore,

H2a: The extent to which organizations have a shared rewards system, departments conclude that they have high levels of cooperative goals and low levels of competitive and independent goals.

H2b: The extent to which organizations have a shared rewards system, departments perceive that they have high levels of organizational identity and low levels of departmental identity.

The third hypothesis predicts that interdepartmental groups are expected to promote high levels of cooperative goals and low levels of competition and independence, dominant organizational identity and secondary departmental identity. Hence,

H3a: The extent to which organizations have interdepartmental groups, departments conclude that they have high levels of cooperative goals and low levels of competitive and independent goals.

H3b: The extent to which organizations have interdepartmental groups, departments perceive that they have high levels of organizational identity and low levels of departmental identity.

The fourth hypothesis predicts that cooperative goals are expected to promote departmental and interdepartmental effectiveness whereas competitive and independent goals reduce it.

H4a: The extent to which departments conclude that they have cooperative goals, they have high levels of departmental and interdepartmental effectiveness.

H4b: The extent to which departments conclude that they have competitive goals, they have low levels of departmental and interdepartmental effectiveness.

H4c: The extent to which departments conclude that they have independent goals,

they have low levels of departmental and interdepartmental effectiveness.

The fifth hypothesis predicts that organizational identity may improve the departmental and interdepartmental effectiveness whereas departmental identity only improves the departmental effectiveness. Consequently,

H5a: The extent to which departments perceive that they have salient organizational identities, they have high levels of departmental and interdepartmental effectiveness.

H5b: The extent to which departments perceive that they have salient departmental identities, they have high levels of departmental but low levels of interdepartmental effectiveness.

In summary, task interdependence, shared rewards, and interdepartmental groups are expected to promote high levels of cooperative goals and low levels of competition and independence, dominant organizational identity and secondary departmental identity. Cooperative goals are expected to promote departmental and interdepartmental effectiveness whereas competitive and independent goals reduce it. Organizational identity may improve the departmental and interdepartmental effectiveness whereas departmental identity only improves departmental effectiveness.

3.3 Chinese Context

The study tests the hypotheses in the Chinese mainland. It may be thought that Chinese people, as collectivists who value interpersonal relationships, have a high degree of interdepartmental coordination (Leung, 1997; Triandis, 1990; Triandis, McCusker, and Hui, 1990). However, Chinese people as collectivists are thought to be particularly oriented toward their in-groups and biased against out-groups. Chen, Peng, & Saporito (2002), have recently proposed that Chinese people and other collectivists

exploit out-group members more than individualists. As cooperation and competition and the ideas of organizational interdependent structures have been developed largely in the West, it cannot be assumed to apply in China. This study provides a direct test of the utility of these ideas to the collectivist culture of China.

This study tests these hypotheses in organizations in China. Although research has focused on differences between the West and the East, it is useful to test theories developed in one culture to another (Morris, Leung, Ames, & Lickel, 1999). Indeed, the organizational interdepartmental structures are thought to be useful in applying to diverse cultures. This study tests the universal aspirations of the theory of cooperation and competition and social identity theory.

CHAPTER 4 METHODOLOGY

4.1 Participants

This study does research at the departmental level in financial companies in mainland China. As Shenzhen, Shanghai and Beijing are the habitats for most financial companies; most data is collected from these three cities. To avoid area bias, Hefei and Hohhot, the second level cities, were also selected to collect the data.

Departments are basic functional units in these organizations. The members and nonmembers recognize the department as a distinguishable group within the company. Some departments are distinguished in terms of special tasks, such as brokerage, investment banking, asset management, fixed income department, risk management department, loan management department, mergers and acquisitions (M&A) and so forth; some are functional departments like marketing, accounting, research and development (R&D), human resources management, information and technology department, etc.

This study uses a self-administered questionnaire to do the survey. Babbie (1998) argues that a self-administered questionnaire will improve the data results, as interviewer bias is removed. Managers and employees were recruited to participate in the study on departments and their relationships by completing questionnaires. Those questionnaires were sent out randomly to the financial companies and managers selected two employees to complete the questionnaires. The data were collected anonymously as anonymity of the participants also increases the reliability of results.

To reduce the possibilities of common method error and make the response more accurate, final sets included one manager questionnaire and two employee questionnaires. 500 sets of questionnaires were distributed to 80 financial companies in mainland China and 138 sets were returned. 362 sets were not completed in the required

time period due to lack of interest or time. However, 27 sets were not completed properly because of the absence of a manager questionnaire or two employee ones or the questionnaires were incomplete; 4 sets were removed in cases where it appeared that they interpreted the questions differently than was intended, such as a case where an individual's ratings are the same for all the questions. Although the participant's rating of the question is unclear, it is appropriate to strike this entry from the data set in order to minimize the impact of this bias. The final set included questionnaires from 107 managers and 214 employees from 34 companies. As indicated in Table 4.1, the data were collected from different financial companies in mainland China, including financial companies, banks, funds, insurance, investment, and securities companies.

Table 4.1 Data Collection information

Valid Sample	Sources of Data
4	Financial Companies
21	Bank
12	Fund
6	Insurance Companies
5	Investment Companies
59	Securities Companies
Total	107

For the different industry samples, we were able to examine response bias by multiple regression method. The results are shown in Table 4.2. There were no significant differences between the industries for departmental effectiveness, interdepartmental effectiveness, cooperative goals, competitive goals, independent goals, and departmental identity. For organizational identity, there was a significant ($p < 0.05$) difference for Insurance Industry as it is a performance based industry.

Table 4.2: Results of Industry as Control Variable

	Departmental Effectiveness	Interdepartmental Effectiveness	Cooperative Goals	Competitive Goals	Independent Goals	Departmental Identity	Organizational Identity
Step 1: Controls							
Finance	.11	-.04	-.11	.02	.05	-.02	.03
Bank	.10	-.02	-.09	.09	.17	.02	.04
Fund	.10	-.04	.06	.08	.16	-.11	.04
Insurance	-.15	-.02	.08	.07	-.06	-.06	-.20*
Investment	-.03	-.02	.13	-.17	.02	-.01	-.08
Step 2: Structures							
Task Interdependence	.06	.10	.16	-.27*	-.34**	.20	.28*
Shared Rewards	.12	.14	.27**	.01	.08	.12	.26**
Interdepartmental Group	-.07	.22*	.30**	.06	-.15	.18	.04
Step 3: Mediating Variable							
Cooperative Goals	.27*	.29**					
Competitive Goals	.07	.06					
Independent Goals	.02	.17					
Departmental Identity	.24*	.07					
Organizational Identity	.20	.21					
R ²	.46	.47	.33	.10	.20	.16	.30
Adjusted R ²	.39	.39	.27	.02	.14	.09	.25
F-Value	6.18**	6.25**	5.91**	1.28	3.11**	2.25*	5.34**

Notes: (1) N=107

(2) *p < 0.05; †p < 0.01.

As indicated in Table 4.3, the total sample of employees includes 117 men and 97 women. With regard to age of this sample, 8% were 20-25 years old, 36% were 26-30, 45% were 31-35, 08% were 36-40 and 3% were 41-45. In connection with working period, 10% of the respondents have been working no more than 1 year, 24% for 1-2 years, 38% for 2-5 years, 10% for 5-7 years, and 18% for more than 7 years. The educational level reported was distributed with 10% without a bachelor degree, 51% with bachelor degree, 36% with a master degree and 3% with doctor degree or above. There were no significant differences in terms of gender and tenure.

Table 4.3 Sample Characteristics of Employees

Variable	Frequency	Valid Percentage
Gender		
Male	117	.55
Female	97	.45
Age range		
20-25	17	.08
26-30	78	.36
30-35	97	.45
36-40	17	.08
41-45	5	.03
Working year range		
< 1	22	.10
1-2	52	.24
2-5	80	.38
5-7	22	.10
> 7	38	.18
Educational level		
Under Bachelor degree	22	.10
Bachelor degree	108	.51
Master degree	78	.36
Doctor degree	6	.03

To avoid self-serving bias as well as common method variance, we asked employees to rate the interdependent structures, goal interdependence, and social

identities; and asked the manager of each department to rate the department effectiveness and inter-departmental effectiveness.

As indicated in Table 4.4, the total sample of managers includes 85 men and 22 women. With regard to age of this sample, 16% were 26-30, 53% were 31-35, 22% were 36-40, 08% were 41-45, and 01% was 46-50. In connection with working period, 8% of the respondents have been working no more than 1 year, 11% for 1-2 years, 40% for 2-5 years, 19% for 5-7 years, 22% for more than 7 years. The educational level reported was distributed with 3% without a bachelor degree, 43% with bachelor degree, 50% with a master degree and 4% with doctor degree or above.

Table 4.4 Sample Characteristics of Managers

Variable	Frequency	Valid Percentage
Gender		
Male	85	.79
Female	22	.21
Age range		
26-30	17	.16
30-35	57	.53
36-40	24	.22
41-45	8	.08
45-50	1	.01
Working year range		
< 1	8	.08
1-2	12	.11
2-5	43	.40
5-7	20	.19
> 7	24	.22
Educational level		
Under Bachelor degree	3	.03
Bachelor degree	46	.43
Master degree	54	.50
Doctor degree	4	.04

4.2 Measures

The study provides a test of whether the interdepartmental structures promote departmental synergy in financial companies in China. Each of the measures described within the model was defined in an approach allowing statistic analysis. Participants responded by rating each statement on a 5-point scale ranging from strongly disagree to strongly agree, for example, 1= strongly disagree, 2= somewhat disagree, 3= neutral, 4= somewhat agree, and 5=strongly agree.

Interdepartmental Structures

Task interdependence is the extent to which two units depend upon each other for assistance, information, compliance, or other coordinative acts in the performance of their respective tasks. This study used a scale taken from Chen & Tjosvold (2004). The scale had four items with seven point ratings that employees were asked to use. A sample item is “Departments have to obtain information and advice from other departments to complete their work”. Employees were asked to measure this scale. Its reliability was computed to be .72.

Shared rewards may motivate people from different departments to cooperate with each other. The five shared rewards items were taken from Tjosvold (1998). A sample item is “When the organization succeeds, all departments are rewarded”. Employees were asked to measure this scale. The scale had a reliability of .76.

Interdepartmental groups are the extent that the organization uses cross-departmental groups to solve important problems and accomplish tasks. This study adapted a measure from Chen & Tjosvold (2004). The scale had three items. A sample item is “Our company uses interdepartmental groups to solve difficult problems concerning the company”. Employees were asked to measure this scale. It has a

Cronbach alpha of .77.

Goal Interdependence

Scales for goal interdependence were developed from a previous questionnaire study conducted in North America (Alper, Tjosvold, & Law, 1998; Tjosvold, Law & Sun, 2003).

The five cooperative goal items measured the emphasis on mutual goals, shared rewards, and common tasks. A sample item for the cooperative goal scale is “Departments seek compatible goals”. The five competitive goal items measured the emphasis on incompatible goals and rewards. A sample item is “Departments have a win-lose relationship”. The independent goal scale had five items to measure the emphasis on unrelated goals and rewards. The sample item is “One department’s success is unrelated to others’ success”. Employees were asked to measure these scales. The scales all demonstrated acceptable reliability. The coefficient alphas for the cooperative, competitive and independent goal scales were .78, .72, .80 respectively.

Social Identities

Organizational identity was used to measure the strength of an individual’s identification with and involvement in a particular organization (Mowday, Steers, & Porter, 1979). The scale used here was originally developed as an 8-item scale by Allen and Meyer (1990) and subsequently used by Meyer, Allen, and Smith (1993) to include 6 items. A sample item is “I do not feel a strong sense of “belonging” to my company”. Employees were asked to measure this scale. Cronbach alpha for this 6-item organizational identity scale was .84.

Departmental identity was to measure how employees felt about and acted toward the department in which they worked. The departmental identity scale was developed by

Mayer, Allen, and Smith (1993) including 6 items. A sample item is “I am proud to be working in my department”. Employees were asked to measure this scale. Its reliability was computed to be .86.

Effectiveness

As with other work group research (Cohen & Ledford, 1994; Goodman, Devadas, & Griffith-Hughson, 1988), obtaining objective work outcome measures proved impossible. Companies did not collect interdepartmental level productivity data. Therefore, we used managers’ ratings of interdepartmental performance as the interdepartmental effectiveness measure. Managers and employees were all asked to rate the effectiveness of relationships among departments in their companies using a 5-item scale developed from Chen, Tjosvold and Wang (2004). In the model, we prefer to use managers’ ratings in order to reduce the possibility of common method variance. A sample item is “Departments work together effectively”. The coefficient alpha for this 5-item interdepartmental effectiveness scale was .88.

Managers and employees also rated their departmental effectiveness on an 8-item scale. Although employees are probably not in as good a position to rate the value of their departmental outputs as accurately as their manager, they may be in a better position than their manager to rate their internal dedication and other capabilities that are the basis for departmental effectiveness. We did a t-test (see Table 4.8) to measure if managers’ and employees’ rating are significantly different. If there is no significant difference, we prefer to use the rating by managers due to the reduced possibility of common method variance. The sample item is “Our department takes the initiative to solve a work problem”. The scale information is summarized in Table 4.5.

As each variable was measured by multiple questions, Cronbach’s Alpha is

calculated for these measures and recorded in Table 4.5. The results may be accepted as Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient. This table also includes other scale information.

Table 4.5 Reliability of Variables

Variable	Mean	S. D.	N of Items	Cronbach's α
Task Interdependence	4.03	.53	4	.72
Shared Rewards	3.87	.56	5	.76
Interdepartmental groups	3.56	.70	3	.77
Cooperative Goals	3.95	.55	5	.78
Competitive Goals	2.91	.55	5	.72
Independent Goals	2.72	.64	4	.78
Organizational Identity	4.22	.76	6	.84
Departmental Identity	3.75	.67	3	.91
Departmental Effectiveness	4.14	.50	8	.88
Interdepartmental Effectiveness	3.79	.57	5	.88

Two people who are native Chinese translated the questionnaires originally written in English into Chinese. To ensure conceptual consistency, two other members back translated the questionnaires back into English to check for possible deviation (Brislin, 1970). The questionnaires were pre-tested to make sure that respondents clearly understood every phrase, concept, and question. To prevent and eliminate potential concern for being involved in evaluating others, participants were assured that their responses would be held totally confidential.

4.3 Pilot Study

The pilot study can refer to so-called feasibility studies which are "small scale versions, or trial runs, done in preparation for the major study" (Polit et al., 2001). A pilot study can also be the pre-testing or 'trying out' of a particular research instrument (Baker 1994). One of the advantages of conducting a pilot study is that it might give

advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated.

A pilot study calls for developing a design which duplicates the final proposed survey design on a small scale from beginning to end, including plans for data processing and analysis. A pilot study interview helps to determine how close the research purpose and the actual study are, and makes sure that the proposed survey operations work together. It may also help to explore and identify other major problems that need to be addressed for the proposed research study.

To find what interdepartmental structures improve the effectiveness coordination between the departments, a face-to-face interview is necessary. 21 people working in 4 securities companies were interviewed. The respondents were asked to rate each statement on a 7-point scale ranging from somewhat agree to strongly agree, for example, 1= somewhat agree, 7= strongly agree.

In the pilot study, we used one item to measure the goal interdependence respectively. For example, the pilot used “How much would your reaching your objectives help the other person reach his objectives?” to measure cooperative goals; used “How much would your accomplishing your objectives interfere with his objectives?” to measure competitive goals and used “In your mind, how related was your reaching your objectives with the other reaching his objectives?” to measure the independent goals.

By interviewing the respondents, it was found that interdepartmental groups were an important antecedent for goal interdependence and social identity. So in the main survey, the scale of interdepartmental groups was added.

The reliability of the composite measurements were tested and listed in Table 4.6. All the Cronbach's Alpha may be accepted except Cronbach's Alpha for shared rewards. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. From the interview, it was found that shared rewards are important antecedents to goal interdependence and social identity. We get the lower result, .52, maybe due to the small sample size. Since the sample size is too small, no factor analysis has been done. The high level of reliability obtained from the sample justified the use of the same measurements for the full-scale survey.

Table 4.6 Scale Information in the Pilot Study

Variable	Mean	S. D.	N of Items	Cronbach's α
Task Interdependence	5.62	.88	4	.71
Shared Rewards	5.02	.76	5	.52
Cooperative Goals	-	-	1	-
Competitive Goals	-	-	1	-
Independent Goals	-	-	1	-
Organizational Identity	5.47	.86	6	.76
Departmental Identity	5.68	.56	6	.83
Departmental Effectiveness	4.35	1.20	8	.88
Interdepartmental Effectiveness	4.60	1.23	5	.94

The results of the pilot test were satisfactory and some wordings of the questionnaire were amended accordingly. By interviewing the respondents, it was found that people did not like to answer the open-ended questionnaires and that they preferred to give the rating anonymously.

4.4 Data Analysis

The data was collected from the 5 different cities in mainland China. Reliability and inter-rater reliability of the data were tested to make sure the response was cohesive. Factor analysis was used to confirm the predominant patterns among the variables and

discover the correlations among variables and factors. Correlation analyses are used as an initial test of the hypotheses. In addition, the data are further examined by confirmatory factor analysis and structural equation modeling via EQS (Bentler & Wu, 1995) to test the model contrasting the role of interdepartmental structures, goal interdependence, social identities and effectiveness.

4.4.1 Data Aggregation

We aggregated employees' ratings of interdepartmental structures, goal interdependence and social identities scales to the departmental level in the analyses. The fundamental reason was that the hypotheses identified the unit of analysis as the department. The operations were carefully constructed so that employees reported on interdepartmental structures, goal relationships, and social identities among departments and their joint effectiveness.

Inter-rater Reliability of the Antecedent and Mediate Variables

However, the aggregation required that the perceptions of employees within a department were reasonably homogeneous. We used James, Demaree, and Wolf's (1984) procedure to estimate the inter-rater reliability of people within each department for each of the two individual-level variables rating interdepartmental structures, goal interdependence and social identities. Because each of the variables was measured by multiple items, this study used James et al.'s $r_{WG(J)}$ index as an estimate of inter-rater reliability. Two indicators showed that the ratings among members in each group were quite homogeneous. First, the medians $r_{WG(J)}$ for the eight variables across the 107 departments are shown in table 4.7. Second, George and Bettenhausen (1990) argued that $r_{WG(J)}$ which was greater than or equal to .70 could be considered as an indicator of

good agreement within a group.

Out of 107 departments, the proportions of departments with $r_{WG(J)}$ greater than or equal to .70 across the eight variables are shown in Table 4.7. From the results, we concluded that the within-department ratings were homogeneous enough to be aggregated to the department level.

Table 4.7 Inter-rater Reliability of the Antecedent and Mediate Variables

Variables	Proportions of $r_{WG(J)} > .70$
Task Interdependence	.91
Shared Rewards	.91
Intra-interdepartmental groups	.90
Cooperative Goals	.94
Competitive Goals	.70
Independent Goals	.80
Departmental identity	.96
Organizational identity	.87

T-test of Outcome Variables

This study makes methodological contributions to previous research in that it allowed independent measures of interdepartmental structures, goal interdependence, social identities and effectiveness. Employees rated the task interdependence, shared rewards, interdepartmental groups, goal interdependence, and social identities and the departmental effectiveness and interdepartmental effectiveness.

To avoid self-serving bias as well as common method variance, we also asked managers to rate the departmental effectiveness and inter-departmental effectiveness. T-test was used to test if there is a significant difference between the ratings for departmental and interdepartmental effectiveness by managers and employees. The results of these T-Tests are reported in Table 4.8.

These results indicate that both departmental and interdepartmental effectiveness are not significantly different for managers and employees. Due to the fact that there were no significant differences, this study prefers to use managers' ratings as the outcome variables.

Table 4.8 Tests of Significance of Managers and Employees Evaluation Differences

Variables	<u>Manager</u>		<u>Employee</u>		<u>T-value</u>
	Mean	S.D.	Mean	S.D.	
1. Departmental Effectiveness	4.14	.50	4.17	.66	– .57
2. Interdepartmental Effectiveness	3.79	.57	3.80	.76	– .09

Notes: (1) ** $p < 0.01$

(2) * $p < 0.05$

4.4.2 Scale Validation

Although most of the items used in this study were validated previously, we were still cautious and tested the factorial structure of the measurement items. Exploratory factor analyses were done to the three exogenous variables, the five mediating variables, and two outcome variables.

Factor Analysis of the Variables

We selected 13 items to define three exogenous variables as indicated in Table 4.9. The three-factor solution accounted for 62.57% variance of the final 13 item version of the interdepartmental structures. The variances explained by interdepartmental groups is 37.06%, by shared rewards is 16.71%, and by task interdependence is 8.80%. Table 4.9 presents the loading of the items that define each variable.

Table 4.9 Interdepartmental Structures with Factor Loadings

Items	Component*		
	1	2	3
<i>1. Interdepartmental groups</i>			
Our company uses interdepartmental groups to discuss how to improve productivity and work-life.	.867		
Our company uses interdepartmental groups to solve difficult problems concerning the company.	.795		
Our company management really takes time to visit and listen to departments and use their ideas to improve the company.	.790		
<i>2. Shared Rewards</i>			
The departments share the credit when the company performs well.		.819	
Departments are rewarded to the extent that the company performs well.		.817	
When the company succeeds, all departments are rewarded.		.745	
Departments recognize that they will be rewarded to the extent that all departments succeed.		.716	
Departments think that their contributions deserve the corresponding rewards.		.479	.396
<i>3. Task Interdependence</i>			
Departments have their own responsibilities and they rarely have to check or work with others.			.743
Departments depend on each other for the completion of their work.	.327		.641
Departments have to work closely with each other to do their work properly.			.591
Departments have to obtain information and advice from other departments to complete their work.			.573

Notes:

- (1) * Only loadings greater than .30 are shown.
- (2) Extraction Method: Principal Component Analysis.
- (3) Rotation Method: Oblimin with Kaiser Normalization. A rotation converged in 13 iterations.
- (4) N=107.

We selected 27 items to define the five mediating variables as indicated in Table 4.10. The five-factor solution accounted for 64.45% variance of the final 27 – item version of goal interdependence and social identities. The variances explained by departmental identity is 29.62%, by competitive goals is 15.58%, by task cooperative goals is 9.24%, by organizational identity is 5.50%, and by independent goals is 4.51%. Table 4.10 presents the loading of the items that define each variable.

Table 4.10 Goal Interdependence and Social Identities Factors with Factor Loadings

	Component				
	1	2	3	4	5
<i>1. Departmental identity</i>	.810				
I dislike working in my department					
I regret having entered my department	.792				
I do not identify with my department	.775				
<i>2. Independent Goals</i>					
Departments are most concerned about what they accomplish when working by themselves		.718			
Departments like to be successful through their own individual work		.704			
One department's success is unrelated to others' success	-.434	.687			
Departments work for their own independent goals		.671			.308
<i>3. Cooperative Goals</i>					
Departments want each other to succeed			.753		
Departments "swim or sink" together			.752		
When departments work together, they usually have common goals			.749		
Departments seek compatible goals			.694		
The goals of departments go together			.632		-.313
<i>4. Organizational Identity</i>					
I would be very happy to spend the rest of my career with our company				-.864	
I really feel as if our company's problems are my own				-.825	
I do not feel a strong sense of "belonging" to my company				-.680	
I do not feel like "part of the family" at our company	.307			-.625	
I do not feel "emotionally attached" to my company	.416			-.595	
Our company has a great deal of personal meaning for me		.341		-.595	
<i>5. Competitive Goals</i>					
Departments structure things in ways that favor their own goals rather than the goals of other departments					.787
Departments like to show that they are superior to each other					.768
Departments have a "win-lose" relationship					.605
Departments give high priority to the things they want to accomplish and low priority to the things other departments want to accomplish	.418				.466
Departments' goals are incompatible with each other					.461

Notes:

(1). * Only loadings greater than .30 are shown.

(2). Extraction Method: Principal Component Analysis.

(3). Rotation Method: Oblimin with Kaiser Normalization. A rotation converged in 27 iterations.

(4). N=107.

We selected 13 items to define two outcome variables as indicated in Table 4.11.

The two-factor solution accounted for 64.64% variance of the final 13- item version of the departmental and interdepartmental effectiveness. The variance explained by departmental effectiveness is 50.77%, and by interdepartmental effectiveness is 13.87%.

Table 4.11 presents the loading of the items that define each variable.

Table 4.11 Effectiveness Factors with Factor Loading

Items	Component	
	1	2
<i>1. Departmental Effectiveness</i>	.898	
Our department takes the initiative to solve a work problem		
Our department exercises personal discipline and self-control	.880	
Our department persists in overcoming obstacles to complete tasks	.842	
Our department works harder than necessary	.826	
Our department tackles difficult work assignments enthusiastically	.765	
Our department asks for challenging work assignments	.747	
Our department pays close attention to important details	.638	
Our department puts in extra hours to get work done	.380	
<i>2. Interdepartmental Effectiveness</i>		
Departments put considerable effort into their common work		.914
Departments care about the quality of the work		.870
Departments work effectively together		.820
Departments could all reach or surpass the requests on their work		.797
Departments could complete their own tasks responsibly by their own efforts		.716

Notes:

- (1). * Only loadings greater than .30 are shown.
- (2). Extraction Method: Principal Component Analysis.
- (3). Rotation Method: Oblimin with Kaiser Normalization. A rotation converged in 13 iterations.
- (4). N=107.

Confirmatory Factor Analysis

In addition, I conducted a series of confirmatory factor analyses to test whether the respondents' ratings would load on ten distinct factors, namely Task Interdependence (TaskI), Shared Rewards (SharedR), Interdepartmental groups (IntraOG), Cooperative Goals (Coop), Competitive Goals (Comp), Independent Goals (Indep), Organizational Identity (OrgID), Departmental Identity (DeptID), Departmental Effectiveness (DeptE), and Interdepartmental Effectiveness (IntDeptE). These series of confirmatory factor

analyses were conducted using EQS (Bentler & Wu, 1995). Because of computational limitations for EQS models involving a number of indicators (Bentler & Chou, 1987), we simplified the structural model in the present study by reducing the number of indicators for the constructs. Specifically, we combined the items with the highest and the lowest loading by averaging until we yielded three or less than three indicators for each construct. That is, the items with highest and the lowest loading were averaged to form a first new indicator, and the items with the next highest and the next lowest loadings were averaged to form the second new indicator, etc. This is a common approach in the literature of structural equation analysis and was used in Mathieu and Farr (1991) and Mathieu, Hofmann and Farr (1993). For departmental effectiveness, four indicators were formed because there were eight indicators in the organizational scale. For task interdependence, interdepartmental groups, and independent goals, only two new indicators were formed because there were only four indicators for each original scale.

We compared the 10-factor model, labeled as M_0 (TaskI, SharedR, IntraOG, Coop, Comp, Inde, DeptID, OrgID, DeptEf, IntDptEf) with four alternative 9-factor models and one 8-factor model in testing the factorial structure of the items. As departmental identity and organizational identity are highly correlated with each other and it is difficult to distinguish them, M_1 combined the three indicators of departmental identity with the three indicators of organizational identity to form a new latent variable. This alternative model tested if the respondents would be able to distinguish the two identities measures in their responses. To test if cooperative goals were, in fact, a distinct measure against organizational and departmental identity, M_2 and M_3 combined the indicators of

organizational identity and departmental identity with cooperative goals respectively to form two single factors which were tested against the proposed 10-factor model. To see if the respondents would be able to distinguish the two effectiveness measures in their responses since the departmental and interdepartmental effectiveness seemed to be highly correlated with each other, M₄ combined the indicators of departmental effectiveness with that of interdepartmental effectiveness to form a new single factor which was tested against the proposed 10-factor model. Finally, to test if the mediating variable of cooperative goals was, in fact, a distinct measure against the departmental and organizational identities, M₅ combined the indicators of cooperative goals with that of departmental and organizational identities to form a single factor which was tested against the proposed 10-factor model.

Table 4.12 Confirmatory Factor Analysis of the Measurement Models

	d.f.	Model χ^2	$\Delta \chi^2$
Baseline 10-factor model (M ₀)	322	570.53	
Combined DeptID & OrgID (M ₁)	341	691.60	121.07**
Combined Coop & OrgID (M ₂)	341	720.72	150.19**
Combined Coop & DeptID (M ₃)	341	748.98	178.45**
Combined DeptEf & IntDptEf (M ₄)	341	735.71	165.18**
Combined Coop, DeptID & OrgID (M ₅)	349	832.58	262.05**

Notes:

- (1). ** P< .01
- (2). χ^2 is the model of chi-square.
- (3). $\Delta \chi^2$ is the change in model chi-square.
- (4). Δ d.f.= 9 for M₁, M₂, M₃, and M₄. Δ d.f.=17 for M₅.

Results of this series of confirmatory factor analyses are shown in Table 4.12. The changes in model chi-square for all the five alternative models were significant at the .01

level. We were, therefore, confident that the constructs used in this study were capturing unique variances and were distinctive psychological constructs.

4.4.3 Hypotheses Testing

Correlation analyses were used as an initial test of the hypotheses. Structural equation analyses were used to test the proposed model that goal interdependence and social identities mediate the relationship between organizational interdepartmental structures and the outcome of departmental and interdepartmental effectiveness.

To more vigorously test the theory, structural equation analysis with the EQS for Macintosh program was used to examine the underlying causal structure between interdepartmental structures, goal interdependence, social identities and effectiveness (Bentler & Wu, 1995). This analysis involved only the structural model, not the measurement model.

Research was used to propose the model that goal interdependence and social identities mediate the relationship between interdepartmental structures and the outcome of the departmental and interdepartmental effectiveness. The indirect model suggested by the theory implies that there should be no direct effects between interdepartmental structures with outcomes, that is goal interdependence and social identities mediate the relationship between structures and outcomes.

A nested model test commonly adopted in causal model analysis was used where the indirect effects model was compared to the direct effects model. The direct effects model posited that values and structures impact outcomes directly.

CHAPTER 5 RESULTS

Employee ratings of interdepartmental structures, goal interdependence, and social identity were aggregated to the departmental level and the data merged with manager ratings of departmental and interdepartmental effectiveness. The final sample size of the merged data file was 107 departments. Correlation analyses were used as an initial test of the hypotheses and structural equation analyses were used to test the proposed model.

5.1 Correlations

Zero-order correlations provide an initial examination of the hypotheses linking task interdependence, shared rewards, interdepartmental groups, goal interdependence, social identity, departmental effectiveness and interdepartmental effectiveness (Table 4.5).

This study proposes that task interdependence, shared rewards, and interdepartmental groups are expected to promote high levels of cooperative goals and low levels of competitive and independent goals, dominant organizational identity and secondary departmental identity. Cooperative goals are expected to promote departmental and interdepartmental effectiveness whereas competitive and independent goals reduce it. Organizational identity may improve the departmental and interdepartmental effectiveness whereas departmental identity only improves the departmental effectiveness.

Correlations among the three exogenous variables, the five mediating variables, and two outcome variables are shown in Table 5.1.

Hypothesis 1a predicts the extent to which organizations have task interdependence; departments conclude that they have high levels of cooperative goals and low levels of competitive and independent goals. Correlation results largely support hypothesis 1a.

Task interdependence positively and significantly correlated with cooperative goals (.37, $p < .01$), negatively and significantly with competitive goals (-.20, $p < .05$) and independent goals (-.38, $p < .01$).

Table 5.1 Correlations among Variables

	1	2	3	4	5	6	7	8	9	10
1. TASKI	1	.								
2. SHARED	.30**	1								
3. INTDPTG	.54**	.35**	1							
4. COOP	.37**	.41**	.44**	1						
5. COMP	-.20*	-.02	-.03	-.37**	1					
6. INDEP	-.38**	-.02	-.24*	-.22*	.56**	1				
7. DEPTID	.32**	.23**	.31**	.33**	-.33**	-.28**	1			
8. ORGID	.42**	.39**	.32**	.40**	-.20*	-.17	.60**	1		
9. DEPTEFF	.34**	.40**	.32**	.45**	-.14	-.08	.47**	.56**	1	
10. INTDEPEF	.39**	.45**	.47**	.51**	-.04	.01	.35**	.49**	.5**	1

Notes:

(1). ** Correlation is significant at the 0.01 level (2-tailed).

(2). * Correlation is significant at the 0.05 level (2-tailed).

(3). N=107

Hypothesis 1b predicts the extent to which organizations have task interdependence; departments perceive that they have high levels of organizational identity and low levels of departmental identity. Correlation results support hypothesis 1b. Task interdependence positively and significantly correlated with organizational identity (.42, $p < .01$) and departmental identity (.32, $p < .01$). The correlation between task interdependence and organizational identity is higher than that between task interdependence and departmental identity.

Hypothesis 2a predicts the extent to which organizations have a shared rewards system; departments conclude that they have high levels of cooperative goals and low levels of competitive and independent goals. Correlation results partly support

hypothesis 2a. Shared rewards positively and significantly correlated with cooperative goals (.41, $p < .01$), negatively but not significantly with competitive goals (-.02, ns) and independent goals (-.02, ns).

Hypothesis 2b predicts the extent to which organizations have a shared rewards system; departments perceive that they have high levels of organizational identity and low levels of departmental identity. Correlation results support hypothesis 2b. Shared rewards positively and significantly correlated with organizational identity (.39, $p < .01$) and departmental identity (.23, $p < .01$). The correlation between task interdependence and organizational identity is higher than that between task interdependence and departmental identity.

Hypothesis 3a predicts the extent to which organizations have interdepartmental groups; departments conclude that they have high levels of cooperative goals and low levels of competitive and independent goals. Correlation results partly support hypothesis 3a. Interdepartmental groups positively and significantly correlated with cooperative goals (.44, $p < .01$), negatively but not significantly with competitive goals (-.03, ns), negatively and significantly with independent goals (-.24, $p < .05$).

Hypothesis 3b predicts the extent to which organizations have interdepartmental groups; departments perceive that they have high levels of organizational identity and low levels of departmental identity. Correlation results partly support hypothesis 3b. Interdepartmental groups positively and significantly correlated with organizational identity (.32, $p < .01$) and departmental identity (.31, $p < .01$). But the correlation between task interdependence and organizational identity is almost the same with that between task interdependence and departmental identity.

Hypothesis 4a predicts the extent to which departments conclude that they have

cooperative goals; they have high levels of departmental and interdepartmental effectiveness. Correlation results largely support hypothesis 4a. Cooperative goals positively and significantly correlated with departmental effectiveness (.34, $p < .01$) and interdepartmental effectiveness (.39, $p < .01$).

Hypothesis 4b predicts the extent to which departments conclude that they have competitive goals; they have low levels of departmental and interdepartmental effectiveness. Correlation results do not support hypothesis 4b. Competitive goals negatively but not significantly correlated with departmental effectiveness (-.14, ns) and interdepartmental effectiveness (-.04, ns).

Hypothesis 4c predicts the extent to which departments conclude that they have independent goals; they have low levels of departmental and interdepartmental effectiveness. Correlation results do not support hypothesis 4c. Independent goals negatively but not significantly correlated with departmental effectiveness (-.08, ns) and positively and not significantly correlated with interdepartmental effectiveness (.01, ns).

Hypothesis 5a predicts the extent to which departments perceive that they have salient organizational identities; they have high levels of departmental and interdepartmental effectiveness. Correlation results largely support hypothesis 5a. Organizational identity positively and significantly correlated with departmental effectiveness (.56, $p < .01$) and interdepartmental effectiveness (.49, $p < .01$).

Hypothesis 5b predicts the extent to which departments perceive that they have salient departmental identities; they have high levels of departmental but low levels of interdepartmental effectiveness. Correlation results largely support hypothesis 5b. Departmental identity positively and significantly correlated with departmental effectiveness (.47, $p < .01$) and interdepartmental effectiveness (.35, $p < .01$). The

correlation between departmental identities is larger than that between departmental identity and interdepartmental effectiveness.

5.2 Hypothesized Model Testing

To test the overall theoretical framework, the three structures of task interdependence, shared rewards and interdepartmental groups were specified as exogenous variables in our structural model. These three structures would affect the three goal interdependence measures and two identification measures, which would have effects on departmental and interdepartmental effectiveness.

5.2.1 Indirect Effects Model Testing

The Hypothesized Model, Indirect Effects Model, implies that there should be no direct effects between interdepartmental structures with outcomes, that is, goal interdependence and social identities mediate the relationship between interdepartmental structures and outcomes. The Direct Effects Model posited that interdepartmental structures impact outcomes directly. To test the values of mediating variables, We compared the Indirect Effects Model with the Saturated Model and the Direct Effects model.

Structural equation analyses through EQS were used to explore the relationship between interdepartmental structures, goal interdependence, social identities and effectiveness.

Figure 5.1 indicates the path estimates for the hypothesized model tested in this study. The results indicate that task interdependence has positively but not significantly effects on cooperative goals, ($\beta=.15$, ns), significantly negative effects on competitive goals and independent goals ($\beta =-.27$, $p<.05$; $\beta =-.45$, $p<.01$). The results partially

support Hypothesis 1a, the extent to which organizations have task interdependence; departments conclude that they have high levels of cooperative goals and low levels of competitive and independent goals.

Figure 5.1 the Coefficient of Hypothesized Model

The results indicate that task interdependence has significantly positive effects on organizational identities, ($\beta = .39$, $p < .01$), positively but not significantly effects on departmental identities ($\beta = .28$, ns). The results support the Hypothesis 1b, the extent to which organizations have task interdependence; departments perceive that they have high levels of organizational identity and the low levels of departmental identity.

The results indicate that shared rewards has significantly positive effects on cooperative goals, ($\beta = .27$, $p < .01$), positively but not significant effects on competitive goals and independent goals ($\beta = .03$, ns; $\beta = .13$, ns). These results support Hypothesis

2a, the extent to which organizations have shared rewards; departments conclude that they have the high levels of cooperative goals and the low levels of competitive and independent goals.

The results indicate that shared rewards has significantly positive effects on organizational identities, ($\beta = .34$, $p < .01$), positively but not significantly effects on departmental identities ($\beta = .15$, ns). These findings support Hypothesis 2b, the extent to which organizations have shared rewards system; departments perceive that they have high levels of organizational identity and the low levels of departmental identity.

The results indicate that interdepartmental groups has significantly positive effects on cooperative goals, ($\beta = .22$, $p < .05$), positively but not significantly effects on competitive goals ($\beta = .08$, ns); negatively but not significantly effects on independent goals ($\beta = -.07$, ns). These results support Hypothesis 3a, the extent to which organizations have interdepartmental groups; departments conclude that they have the high levels of cooperative goals the low levels of competitive and independent goals.

The results indicate that interdepartmental groups have positively but not significantly effects on organizational identities, ($\beta = .05$, ns) and departmental identities ($\beta = .18$, ns). These results do not support Hypothesis 3b, the extent to which organizations have interdepartmental groups; departments perceive that they have high levels of organizational identity and the low levels of departmental identity.

The results indicate that cooperative goals have significantly positive effects on departmental effectiveness and interdepartmental effectiveness ($\beta = .25$, $p < .01$; $\beta = .45$, $p < .01$). These findings support hypothesis 4a, the extent to which departments conclude that they have cooperative goals, they have high levels of departmental and

interdepartmental effectiveness.

The results indicate that competitive goals have positively but not significantly effects on departmental effectiveness and interdepartmental effectiveness ($\beta = .06$, ns; $\beta = .18$, ns). These findings support hypothesis 4b, the extent to which departments conclude that they have competitive goals; they have low levels of departmental and interdepartmental effectiveness.

The results indicate that independent goals have positively but not significantly effects on departmental effectiveness and interdepartmental effectiveness ($\beta = .05$, ns; $\beta = .06$, ns). These findings support hypothesis 4c, the extent to which departments conclude that they have competitive goals; they have low levels of departmental and interdepartmental effectiveness.

The results indicate that organizational identities have significantly positive effects on departmental effectiveness and interdepartmental effectiveness ($\beta = .26$, $p < .01$; $\beta = .25$, $p < .01$). These results support hypothesis 5a, the extent to which departments perceive that they have salient organizational identities; they have high levels of departmental and interdepartmental effectiveness.

The results indicate that departmental identities have significantly positive effects on departmental effectiveness ($\beta = .14$, $p < .01$) and positively but not significantly effects on interdepartmental effectiveness ($\beta = .08$, ns). These results support hypothesis 5b, the extent to which departments perceive that they have salient departmental identities; they have a high level of departmental but a low level of interdepartmental effectiveness.

In regards to model fit, the Hypothesized Indirect Effects Model had a model chi-square of 14.01 and 6 degrees of freedom. The NFI and CFI for the model were .96,

and .98 respectively. Both fit indices were considered as indicating good model fit, given the usually accepted critical value of .90. (Bentler & Bonnett, 1980). Table 5.2 shows the model fit of the Hypothesized Model.

Table 5.2 Model Fit Indexes of the Hypothesized Model

Model	χ^2	d.f.	NFI	CFI
Hypothesized Model	14.01	6	.96	.98

5.2.2 Saturated Model Testing

To explore all the relationships between the 10 variables and test the values of the mediating variables, this study did the structural equation analyses through EQS. Figure 5.2 shows the path estimates for the Saturated Model tested in this study.

The results indicate that task interdependence has positive but not significant effects on departmental effectiveness ($\beta=.07$, ns) and interdepartmental effectiveness ($\beta=.11$, ns). Shared rewards also have positive but not significant effects on departmental effectiveness ($\beta=.12$, ns) and interdepartmental effectiveness ($\beta=.14$, ns). Interdepartmental groups have significantly positive effects on interdepartmental effectiveness ($\beta=.16$, $p<.05$), positively but not significant effects on departmental effectiveness ($\beta=.01$, ns).

Meanwhile, by comparing the path estimates of the Indirect Effects Model and those of the Saturated Model, it is found that the coefficients from cooperative goals and organizational identity outcomes are decreased. In the Indirect Effects Model, the coefficients from cooperative goals to departmental effectiveness and interdepartmental

effectiveness are .25 ($p<.01$) and .45 ($p<.01$) respectively; the coefficients from organizational identity to departmental effectiveness and interdepartmental effectiveness are .26 ($p<.01$) and .25 ($p<.01$) respectively. In the Saturated Model, the coefficients from cooperative goals to departmental effectiveness and interdepartmental effectiveness are .19 ($p<.05$) and .29 ($p<.01$) respectively; the coefficients from organizational identity to departmental effectiveness and interdepartmental effectiveness are .21 ($p<.01$) and .18 ($p<.05$) respectively. These results indicate that goal interdependence and social identities are very important mediating variables in the hypothesized model.

Figure 5.2 the Coefficient of Saturated Model

Table 5.3 Model Fit Indexes of the Saturated Model

Model	χ^2	d.f.	NFI	CFI
The Saturated Model	.17	1	1	1

Table 5.4 Results of the Hypothesized Model and Saturated Model

Hypothesized Model			Saturated Model		
Path from	Path to	Path Coeff	Path from	Path to	Path Coeff
TASKI	COOP	.15	TASKI	COOP	.15
SHARED	COOP	.27**	SHARED	COOP	-.27**
INTRAO	COOP	.22**	INTRAO	COOP	.22**
TASKI	COMP	-.27*	TASKI	COMP	-.27*
SHARED	COMP	.03	SHARED	COMP	.03
INTRAO	COMP	.08	INTRAO	COMP	.08
TASKI	INDEP	-.45**	TASKI	INDEP	-.45**
SHARED	INDEP	.13	SHARED	INDEP	.13
INTRAO	INDEP	-.07	INTRAO	INDEP	-.07
TASKI	DEPTID	.28	TASKI	DEPTID	.28
SHARED	DEPTID	.15	SHARED	DEPTID	.15
INTRAO	DEPTID	.18	INTRAO	DEPTID	.18
TASKI	ORGID	.39**	TASKI	ORGID	.39**
SHARED	ORGID	.34**	SHARED	ORGID	.34**
INTRAO	ORGID	.05	INTRAO	ORGID	.05
COOP	DEPTEF	.25**	TASKI	DEPTEF	.07
COMP	DEPTEF	.06	SHARED	DEPTEF	.12
INDEP	DEPTEF	.05	INTRAO	DEPTEF	.01
DEPTID	DEPTEF	.14*	COOP	DEPTEF	.19*
ORGID	DEPTEF	.26**	COMP	DEPTEF	.03
COOP	INTDPTE	.45**	INDEP	DEPTEF	.07
COMP	INTDPTE	.18	DEPTID	DEPTEF	.14*
INDEP	INTDPTE	.06	ORGID	DEPTEF	.21**
DEPTID	INTDPTE	.08	TASKI	INTDPTE	.11
ORGID	INTDPTE	.25**	SHARED	INTDPTE	.14
			INTRAO	INTDPTE	.16*
			COOP	INTDPTE	.29**
			COMP	INTDPTE	.07
			INDEP	INTDPTE	.14
			DEPTID	INTDPTE	.05
			ORGID	INTDPTE	.18*
χ^2	14.01		χ^2	.17	
d.f.	6		d.f.	1	
NFI	.96		NFI	1	
CFI	.98		CFI	1	

In regards to the model fit, the Saturated Model had a model chi-square of .17 and 1 degree of freedom. The NFI, CFI for the model were both 1. Table 5.3 shows the model fit of the Saturated Model. Table 5.4 shows the details of the path estimates for the Hypothesized Model and the Saturated Model.

5.2.3 Direct Effects Model Testing

The Direct Effects Model posited that interdepartmental structures impact outcomes directly. Specifically, the Direct Effects Model proposes that task interdependence, shared rewards and interdepartmental groups directly promote the departmental effectiveness and interdepartmental effectiveness.

Figure 5.3 Path Estimates of the Direct Effects Model

Figure 5.3 indicates the path estimates for the Direct Effects Model tested in this study. This model posits that interdepartmental structures impact outcomes directly.

Table 5.5 shows the model fit of the Direct Effects Model. The Direct Effects Model had a model chi-square of 252.19 and 35 degrees of freedom. The NFI and CFI for the model were .36, and .38 respectively. All fit indices were considered as indicating

not that the model was not a good fit, given the usually accepted critical value of .90. (Bentler & Bonnett, 1980).

Table 5.5 Model Fit Indexes of the Direct Effects Model

Model	χ^2	d.f.	NFI	CFI
Direct Effects Model	252.19	35	.36	.38

In addition, to explore the different roles and relations between the goal interdependence and social identities, this study developed another two double mediating indirect models, the Goals-Identity Double Mediating Model and the Identity-Goals Double Mediating Model.

5.2.4 The Goals-Identity Double Mediating Model Testing

Figure 5.4 Path Estimates for the Goals-Identity Double Mediating Model

In the Goals-Identity Double Mediating Model, goal interdependence was posited

as the first mediator and social identity as the second mediator to mediate the relationships between interdepartmental structures and effectiveness. Figure 5.4 indicates the path estimates for this model tested in the study.

In regards to model fit, the First Double Mediating Model had a chi-square of 60.75 with 18 degree of freedom. The NFI and CFI for the model were .85 and .88 respectively. Table 5.6 shows the model fit of this model.

Table 5.6 Model Fit Indexes of the Goals-Identity Double Mediating Model

Model	χ^2	d.f.	NFI	CFI
Goals-Identity Model	60.75	18	.85	.88

5.2.5 The Identity-Goals Double Mediating Model Testing

Figure 5.5 Path Estimates for the Identity-Goals Double Mediating Model

In the Identity-Goals Double Mediating Model, social identity was posited as the

first mediator and goal interdependence as the second mediator to mediate the relationships between interdepartmental structures and effectiveness. Figure 5.5 indicates the path estimates for this model tested in the study.

In regards to model fit, the Second Double Mediating Model had a chi-square of 94.08 with 19 degrees of freedom. The NFI and CFI for the model were .76 and .79 respectively. Table 5.7 shows the model fit of this model.

Table 5.7 Model Fit Indexes of the Identity-Goals Double Mediating Model

Model	χ^2	d.f.	NFI	CFI
Identity-Goals Model	94.08	19	.76	.79

Table 5.8 shows all the path estimates for the four models tested in this study. The Hypothesized Model and other three Models were compared. Those three models were developed in different ways. Direct Effects Model deletes the goal interdependence and social identities from the Hypothesis Model. Specifically, it proposes that interdepartmental structures, task interdependence, shared rewards and interdepartmental groups, promote departmental effectiveness and interdepartmental effectiveness directly. The Goals-Identity Mediating Model posited interdepartmental structures, task interdependence, shared rewards and interdepartmental groups as the antecedent variables, goal interdependence as the first mediating variable, and social identities as the second mediating variable, departmental effectiveness and interdepartmental effectiveness as outcomes. The Identity-Goals Mediating Model makes the interdepartmental structures, task interdependence, shared rewards and interdepartmental

Table 5.8 Results of the Nested Model Analyses of Structural Model

Hypothesized Model			Direct Effects Model			Goals-Identity Mediating Model			Identity-Goals Mediating Model		
Path from	Path to	Path Coeff.	Path from	Path to	Path Coeff.	Path from	Path to	Path Coeff.	Path from	Path to	Path Coeff.
TASKI	COOP	.15	TASKI	DEPTEF	.18	TASKI	COOP	.15	TASKI	DEPTID	.28
SHARED	COOP	.27**	SHARED	DEPTEF	.27**	SHARED	COOP	.27**	SHARED	DEPTID	.15
INTRAOG	COOP	.22**	INTRAOG	DEPTEF	.08	INTRAOG	COOP	.22**	INTRAOG	DEPTID	.18
TASKI	COMP	-.27*	TASKI	INTDPTE	.15	TASKI	COMP	-.27*	TASKI	ORGID	.39**
SHARED	COMP	.03	SHARED	INTDPTE	.31**	SHARED	COMP	.03	SHARED	ORGID	.34**
INTRAOG	COMP	.08	INTRAOG	INTDPTE	.24**	INTRAOG	COMP	.08	INTRAOG	ORGID	.05
TASKI	INDEP	-.45**				TASKI	INDEP	-.45**	DEPTID	COOP	.10
SHARED	INDEP	.13				SHARED	INDEP	.14	ORGID	COOP	.26**
INTRAOG	INDEP	-.07				INTRAOG	INDEP	-.07	DEPTID	COMP	-.24**
TASKI	DEPTID	.28				COOP	DEPTID	.33*	ORGID	COMP	-.01
SHARED	DEPTID	.15				COMP	DEPTID	-.24	DEPTID	INDEP	-.23*
INTRAOG	DEPTID	.18				INDEP	DEPTID	-.15	ORGID	INDEP	-.00
TASKI	ORGID	.39**				COOP	ORGID	.46**	COOP	DEPTEF	.41**
SHARED	ORGID	.34**				COMP	ORGID	-.03	COMP	DEPTEF	.02
INTRAOG	ORGID	.05				INDEP	ORGID	-.08	INDEP	DEPTEF	.01
COOP	DEPTEF	.25**				DEPTID	DEPTEF	.14*	COOP	INTDPTE	.59**
COMP	DEPTEF	.06				ORGID	DEPTEF	.32**	COMP	INTDPTE	.15
INDEP	DEPTEF	.05				DEPTID	INTDPTE	.07	INDEP	INTDPTE	.03
DEPTID	DEPTEF	.14*				ORGID	INTDPTE	.37**			
ORGID	DEPTEF	.26**									
COOP	INTDPTE	.45**									
COMP	INTDPTE	.18									
INDEP	INTDPTE	.06									
DEPTID	INTDPTE	.08									
ORGID	INTDPTE	.25**									
χ^2	14.01		χ^2	252.19		χ^2		60.75	χ^2		94.08
d.f.	6		d.f.	35		d.f.		18	d.f.		19
NFI	.96		NFI	.36		NFI		.85	NFI		.76
NNFI	.83		NNFI	.20		NNFI		.69	NNFI		.49
CFI	.98		CFI	.38		CFI		.88	CFI		.79

Note:

- (1) N = 107
- (2) ** P < .01; * p < .05
- (3) NFI = Normed Fit Index; NNFI = Nonnormed Fit Index; CFI = Comparative Fit Index
- (4) In Direct Effects Model, goal interdependence and social identities were deleted
- (5) In Indirect Effects Model (1), we proposed: structures => goal interdependence => social identities => effectiveness
- (6) In Indirect Effects Model (2), we proposed: structures => social identities => goal interdependence => effectiveness

groups as antecedences variables; social identities as the first mediating variable; goal interdependence as the second mediating variable; and departmental effectiveness and interdepartmental effectiveness as outcomes.

In summary, the four Model had χ^2 of 14.01 (d.f. = 6), 252.19 (d.f.=35), 60.75 (d.f.=18), and 94.08 (d.f.=19) respectively. The difference between the Hypothesis Model and the Direct Effects Model was significant (χ^2 difference = 238.18), and the NFI and CFI were .36 and .38 indicating that omission of the mediating effects of goal interdependence and social identities significantly deteriorated the Hypothesis Model. The difference between the Hypothesis Model and the Goals-Identity Double Mediating Model was significant (χ^2 difference = 46.74) and the difference between the Hypothesis Model and the Identity-Goals Double Mediating Model was also significant (χ^2 difference = 80.07). Results of the causal model comparison suggest that the Hypothesized Model be accepted.

CHAPTER 6 DISCUSSION

The path coefficient analysis enables us to assess whether the structure of data is consistent with the Hypothesized Model. The results largely support the proposed hypotheses, that is, task interdependence, shared rewards, and interdepartmental group promote high levels of cooperative goals or low levels of competitive and independent goals, dominant organizational identity and secondary departmental identity. Cooperative goals promote departmental and interdepartmental effectiveness whereas competitive and independent goals reduce it. Organizational identity may improve departmental and interdepartmental effectiveness whereas departmental identity only improves departmental effectiveness.

The results extend the understanding of the roles of goal interdependence and social identities on effective departments and their relationships and suggest the processes by which they have their effects. This study also shows that task interdependence, shared rewards and interdepartmental groups are important antecedents for goal interdependence and social identity.

The data analysis results support the literature that task interdependence provides incentives for collaboration on interdepartmental issues (Dutton and Walton, 1966). Recently, researchers have used task interdependence to examine the effects of how tasks are structured on interaction (Saavedra, Earley, & Van Dyne, 1993; Van der Vegt, Emans, & Van de Vliert, 1998). This study provides an indication that managers may construct task interdependence as well as the mutual goals between the departments and develop the organizational identity within the organization, which will help enhance collaboration between the departments.

Previous research argued that to motivate the groups to coordinate with each other,

organizations could develop a performance-related pay system (Armstrong & Murlis, 1991). This study showed that a shared rewards system might motivate departments to have cooperative goals and salient organizational identity, which in turn result in high levels of interdepartmental effectiveness.

Researchers argue that the use of teams is a major way that organizations are adapting to the rapidly changing environment (Colquitt, Hollenbeck, Ilgren, Le Pine, & Sheppard, 2002). However, some researchers argued that the use of interdepartmental groups could result in negative outcomes. This study tested the relationship between the interdepartmental groups and organizational effectiveness. The result supports that interdepartmental groups may motivate members to have cooperative goals, which will enhance the organizational effectiveness. It also seems that interdepartmental groups might enhance departmental identity, which results in a high level of departmental effectiveness.

The theory of cooperation and competition suggests departments may conclude that their goals are negatively or independently as well as positively related. For example, task interdependence was negatively and significantly correlated with competitive goals and independent goals. That is, the lower the level of task interdependence between departments, the more competitive or independent the goal departments have. However, shared rewards and interdepartmental groups are positively and significantly correlated with cooperative goals.

Previous literature mentioned that interdepartmental structures may help departments to develop win-win solutions that meet the needs and desires of all departments involved (Blake & Mouton, 1970; Lax & Sebenius, 1986). This study extends this point and specifies that shared rewards and interdepartmental groups might

help departments build mutual goals and help them work together with each other.

In many cases, the use of organizational resources and contributions to organizational goals is a dilemma, where self serving group interests are to the detriment of the organization as a whole. This study suggests that organizations might construct a congregation of interdepartmental structures by which coordination between departments can be managed. The more the departments believe they have cooperative goals and perceive they have high levels of organizational identity, the more positively and significantly the effects on departmental and interdepartmental effectiveness of interdepartmental structures.

In addition, researchers have identified a variety of antecedents for social identity, including personal characteristics, structural characteristics, job-related characteristics, and work experiences (Mowday, Porter, & Streers, 1982). This study identified those interdepartmental structures, especially task interdependence, shared rewards and organizational groups as the antecedents to the social identity theory.

In summary, the results support that interdepartmental structures may motivate members to have cooperative goals and salient organizational identities, which will enhance the organizational effectiveness. Organizational interdepartmental structures were found to be important antecedents to goal interdependence and social identities among departments. Shared rewards and interdepartmental groups were associated with cooperative goals. Task interdependence and shared rewards were predictive of organizational identities. Interdepartmental groups were predictive of the departmental identities. Goal interdependence was in turn highly predictive of effective collaboration among departments; departments with cooperative goals were described as having a high degree of departmental and interdepartmental effectiveness and those with competitive

and independent goals as unable to work together productively. Social identities were also in turn highly prognostic of effective coordination among departments; departments which perceived that they had salient organizational identities were portrayed as having a high degree of departmental and interdepartmental effectiveness and those with salient departmental identities only as having a high level of departmental effectiveness.

CHAPTER 7 RESEARCH IMPLICATIONS

7.1 Practical Implications of This Study

To conclude, the results of this study demonstrate the relevance of connecting the theory of cooperation and competition and the social identity theory on the one hand, and applied organizational behavior studies on departments and their effective coordination on the other hand. Specifically, the practical implications of this study are that in the case of those jobs where it is necessary to collaborate with employees of other departments, it seems to be important to develop task interdependence systems, share rewards systems, and build up interdepartmental groups for this study has shown that the interdepartmental structures are positively associated with departmental and their effective relationship.

The results provide good support for the model proposed in this study. Interdepartmental structures were found to be important antecedents to goal interdependence and salient organizational identities among departments. Task interdependence, shared rewards, and interdepartmental groups led to cooperative goals and salient organizational identities. Goal interdependence and salient organizational identities were in turn strongly associated with effective collaboration among departments. Departments with cooperative goals were described as having a high degree of interdepartmental effectiveness and those with competitive and independent goals as unable to work together.

Interdepartmental structures can result in cooperative goals. Interdepartmental group members are assigned a common task that appears to lead them to believe that their goals are cooperative in that they can succeed as others succeed. The shared reward is a specific way that they recognize that they must work together for mutual benefit.

Shared reward departments recognize that they need each other's ideas and materials to complete their own jobs and should coordinate their efforts. They also can appreciate that competitive and independent efforts will make their own success as well as the success of other departments less likely. However, with few interdepartmental groups and low levels of shared rewards, departments may conclude that they have few cooperative goals. To the extent that they conclude they have competitive and independent goals, departments are unlikely to work together effectively.

Companies may seek to train and develop cooperative goals, which may be achieved by setting interdepartmental structures, by rewarding cooperative orientations more than individualistic or competitive orientations, or by emphasizing the continuity of future collaborations.

Organizational interdepartmental structures can result in cooperative goals. Strong departmental competency can contribute to cooperative goals and in turn result in high departmental effectiveness and innovation. Task interdependent departments recognize that they need each other's ideas and materials to complete their own jobs and should coordinate their efforts. They also can appreciate that competitive and independent efforts will make their own success and that of other departments less likely. However, with low levels of interdepartmental structures, departments may conclude that they have few cooperative goals. To the extent that they conclude they have competitive and independent goals, departments are unlikely to work together effectively.

The theory of cooperation and competition, although developed in the West, proved useful for understanding interdepartmental dynamics in China (Deutsch, 1973). The research approach used in this study can both probe general theories and improve understanding of organizational dynamics in nonwestern cultures.

This study provides a test of whether interdepartmental coordination mechanisms promote synergy in financial companies in China; this study adds to research on cooperation and competition and social identities by identifying the interdepartmental coordination as important antecedents to goal interdependence.

In addition to developing theoretical understanding, the hypotheses, if they can continue to be supported, have important practical implications for developing interdepartmental relationships, especially in those financial companies in China. This study provides empirical evidence of the utility of interdepartmental structures and suggests that cooperative goals and social identities mediate their effects on departments and interdepartmental relationships. Developing a cooperative approach for departments may strengthen their relationships and effectiveness.

Synergy among departments is increasingly considered vital for organizations to use their full resources to deal with threats and exploit opportunities in the rapidly changing marketplace, but integrating departments into one part is also considered a difficult management challenge. Feeling cooperatively united is possible but departments can also develop competitive and independent goals that make coordination difficult. The results suggest that developing a commitment to interdepartmental structures, organizations can help departments believe that their goals are positively related. In this way, departments are prepared to combine their efforts to work effectively together.

7.2 Limitations of This Study

The sample and operations limit the results of this study. The data are self-reported and subject to biases, and may not be accurate, although recent research suggests that self-reported data are not as limited as commonly expected (Spector, 1992). These data

are also correlated and do not provide direct evidence of causal links between interdepartmental structures, goal interdependence, social identities, and effectiveness. However, employees completed measures of interdepartmental structures, goal interdependence and social identities, whereas managers completed the measures of departmental and interdepartmental effectiveness. Developing different sources for the independent and dependent measures should reduce the possibilities of same source method as an alternative explanation of the results.

Spector and Brannick (1995) have argued that the most effective way to overcome recall and other methodological weaknesses is to test ideas with different methods. It would be desirable to provide direct experimental verification of the role of a shared vision and goal interdependence on opportunism in Chinese organizational settings.

This study is also limited by common method problems. This study uses a self-administered questionnaire to do the survey. Babbie (1998) argues that a self-administered questionnaire will improve the data results, as interviewer bias is removed. But respondents still have the opportunity to recall the full example before answering specific rating questions. Research evidence indicates that people often accurately perceive and report their work environment, especially when the purpose is for research rather than their evaluation (Balzer & Sulsky, 1992; Crampton & Wagner, 1994; Murphy, Jako, & Anhalt, 1992; Spector, 1992).

7.3 Future Research Directions

Arguably, this study is one of the few that has attempted to examine the conditions leading departments to coordinate effectively by using cooperation and competition theory and social identity theory especially in mainland China. Thus there is scope for future research. The directions could be as follows:

First, organizations can develop more effective interdepartmental structures. In this connection, in-depth interviews and large numbers of field visits may be needed to acquire more knowledge about practical applications. For example, it would be useful to examine how interdepartmental connectedness, coordination, integrative, or appraisal systems affect departments and their relationships. Future research may try to identify different interdepartmental structures and under what situations they could be applied successfully.

Second, Despite the importance of departmental and organizational identities as a means of aligning the interests of the departments, the factor was addressed in this study owing to the measurement. In order to investigate the effects of departmental and organizational identities on the productive interdepartmental relationships, Chinese-oriented scales should be developed.

Third, this research only focuses on the mediating roles of goal interdependence and social identity between the interdepartmental structures and interdepartmental effectiveness. In the rapidly changing marketplace, more and more financial companies have changed their strategy from setting up subordinates in different cities into providing full services to customers at a one-station shop. To deal with currently changing situations in mainland China, future research may try to identify different variables which mediate the effects between the interdepartmental structures and effectiveness.

Fourth, interdepartmental structures have been found to have a significant effect on coordination between departments. But how interdepartmental structures could be established is still a problem for financial companies in mainland China. Further research might focus on the antecedents to building interdepartmental structures and what factors could facilitate the development of structures between departments.

7.4 Conclusions

The major objective of this study was to identify the contextual structures, which motivate departments to develop cooperative goals and forge organizational cohesion; which result in high departmental and interdepartmental effectiveness within organizations. This study connects the theory of cooperation and competition and social identity theory to develop the framework of the mediating dynamics.

In this study, 107 departmental managers and 214 members from financial companies in mainland China participated in the investigation. The main statistical techniques were exploratory and confirmatory factor analysis, correlation and model testing. The results indicate that shared rewards and interdepartmental groups promote cooperative goals among departments; task interdependence and shared rewards promote salient organizational identity among departments; interdepartmental groups promote salient departmental identity; cooperative goals and salient organizational identity in turn result in high levels of departmental and interdepartmental effectiveness, but salient departmental identity only results in a high level of departmental effectiveness.

This study has managerial implications for constructing the conditions that lead departments not only to care for the goals of their own department, but also for the goals of other departments and how to coordinate with each other effectively. Despite the contributions of this study, I acknowledge that additional studies are needed to develop and substantiate this framework.

APPENDIX I Measures

Task Interdependence (Responded by Department Members)

Departments have to obtain information and advice from other departments to complete their work.

Departments depend on each other for the completion of their work

Departments have their own responsibilities and they rarely have to check or work with others

Departments have to work closely with each other to do their work properly

Shared Rewards (Responded by Department Members)

When the company succeeds, all departments are rewarded

Departments are rewarded to the extent that the company performs well

The departments share the credit when the company performs well

Departments recognize that they will be rewarded to the extent that all departments succeed

Departments think that their contributions deserve the corresponding rewards

Interdepartmental groups (Responded by Department Members)

Our company uses interdepartmental groups to discuss how to improve productivity and work-life

Our company uses interdepartmental groups to solve difficult problems concerning the company

Our company management really takes time to visit and listen to departments and use their ideas to improve the company

Cooperative Goals (Responded by Department Members)

Departments “swim or sink” together

Departments want each other to succeed

Departments seek compatible goals

The goals of departments go together

When departments work together, they usually have common goals

Competitive Goals (Responded by Department Members)

Departments structure things in ways that favor their own goals rather than the goals of

other departments

Departments have a “win-lose” relationship

Departments like to show that they are superior to each other

Departments’ goals are incompatible with each other

Departments give high priority to the things they want to accomplish and low priority to the things other departments want to accomplish

Independent Goals (Responded by Department Members)

Each department “does its own thing”

Departments like to be successful through their own individual work

Departments work for their own independent goals

One department’s success is unrelated to others’ success

Departments are most concerned about what they accomplish when working by themselves

Department Identity (Responded by Department Members)

Working in my department is important to my self-image

I regret having entered my department

I am proud to be working in my department

I dislike working in my department

I do not identify with my department

I am enthusiastic about my work

Organizational Identity (Responded by Department Members)

I would be very happy to spend the rest of my career with our company

I really feel as if our company’s problems are my own

I do not feel a strong sense of “belonging” to my company

I do not feel “emotionally attached” to my company

I do not feel like “part of the family” at our company

Our company has a great deal of personal meaning for me

Department Effectiveness (Responded by Department Managers)

Our department puts in extra hours to get work done

Our department pays close attention to important details
Our department works harder than necessary
Our department asks for challenging work assignments
Our department exercises personal discipline and self-control
Our department takes the initiative to solve a work problem
Our department persists in overcoming obstacles to complete tasks
Our department tackles difficult work assignments enthusiastically

Interdepartmental Effectiveness (Responded by Department Managers)

Departments work effectively together
Departments put considerable effort into their common work
Departments care about the quality of the work
Departments could all reach or surpass the requests on their work
Departments could complete their own tasks responsibly by their own efforts

APPENDIX II Actual Questionnaire for Departmental Members in English

Relationships among Departments

Departmental Members Questionnaire

My PhD research focuses on the effectiveness of interacting among different departments within the company. Please describe the inter-departmental relationships and assess their effects on your company. For each question, a 5-point scale is used (1= Strongly Disagree, 5= Strongly Agree). Please **CIRCLE** the corresponding number to indicate your agreement with each statement.

I promise that the information you provide will be kept confidential and used only for research purposes. If you have any questions, please feel free to contact me, Ms. Liyan Wang, PhD Candidate, Department of Management, Lingnan University, Hong Kong, (email:lwang@ln.edu.hk, tel: (852)6198-5669).

I very much appreciate your participation.

Section I : Interdependence among Departments

Please rate the following statements about the interdependence and resource sharing among the departments.

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

1.1 Departments “swim or sink” together	1	2	3	4	5
1.2 Departments want each other to succeed	1	2	3	4	5
1.3 Departments seek compatible goals	1	2	3	4	5
1.4 The goals of departments go together	1	2	3	4	5
1.5 When departments work together, they usually have common goals	1	2	3	4	5
1.6 Departments structure things in ways that favor their own goals rather than the goals of other departments	1	2	3	4	5

1.7 Departments have a “win-lose” relationship	1	2	3	4	5
1.8 Departments like to show that they are superior to each other	1	2	3	4	5
1.9 Departments’ goals are incompatible with each other	1	2	3	4	5
1.10 Departments give high priority to the things they want to accomplish and low priority to the things other departments want to accomplish	1	2	3	4	5
1.11 Each department “does its own thing”	1	2	3	4	5
1.12 Departments like to be successful through their own individual work	1	2	3	4	5
1.13 Departments work for their own independent goals	1	2	3	4	5
1.14 One department’s success is unrelated to others’ success	1	2	3	4	5
1.15 Departments are most concerned about what they accomplish when working by themselves	1	2	3	4	5
1.16 Departments find fair ways to benefit from each other abilities	1	2	3	4	5
1.17 Departments use their abilities to accomplish goals	1	2	3	4	5
1.18 Departments combine their abilities effectively	1	2	3	4	5
1.19 Departments encourage each other to develop their abilities	1	2	3	4	5
1.20 Departments appreciate each other’s abilities	1	2	3	4	5
1.21 Departments express their own views directly to each other	1	2	3	4	5
1.22 Departments listen carefully to each other’s opinions	1	2	3	4	5
1.23 Departments try to understand each other's concerns	1	2	3	4	5
1.24 Departments try to use each other’s ideas	1	2	3	4	5
1.25 Even when they disagree, departments communicate respect for each other	1	2	3	4	5
1.26 Departments work for decisions they both accept	1	2	3	4	5
1.27 All views are listened to, even if they are in the minority	1	2	3	4	5
1.28 Departments use their opposing views to understand the problem	1	2	3	4	5

Section II: Working Relationship

Please rate the following statements regarding the relationship between your department and the other departments.

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

2.1 Departments have to obtain information and advice from other departments to complete their work.	1	2	3	4	5
2.2 *Departments depend on each other for the completion of their work	1	2	3	4	5
2.3 Departments have their own responsibilities and they rarely have to check or work with others	1	2	3	4	5
2.4 Departments have to work closely with each other to do their work properly	1	2	3	4	5
2.5 When the company succeeds, all departments are rewarded	1	2	3	4	5
2.6 Departments are rewarded to the extent that the company performs well	1	2	3	4	5
2.7 The departments share the credit when the company performs well	1	2	3	4	5
2.8 Departments recognize that they will be rewarded to the extent that all departments succeed	1	2	3	4	5
2.9 Departments think that their contributions deserve the corresponding rewards	1	2	3	4	5
2.10 Our company uses interdepartmental groups to discuss how to improve productivity and work-life	1	2	3	4	5
2.11 Our company uses interdepartmental groups to solve difficult problems concerning the company	1	2	3	4	5
2.12 Our company management really takes time to visit and listen to departments and use their ideas to improve the company	1	2	3	4	5
2.13 Our company tries to make the majority of departments feel like winners using methods like bonuses, prizes and praise.	1	2	3	4	5

2.14	In our company, all company employees are approachable, regardless of that person's rank or position	1	2	3	4	5
2.15	In our company, there is ample opportunity for informal "hall talk" among individuals from different departments	1	2	3	4	5
2.16	In our company, employees from different departments feel comfortable contacting each other when the need arises	1	2	3	4	5
2.17	In our company, managers discourage employees from discussing work-related matters with those who are not their immediate superiors or subordinates	1	2	3	4	5
2.18	A formally designated person coordinates activities among departments	1	2	3	4	5
2.19	Informal communication channels (simply contacting another unit member who is likely to have the desired information) coordinate activities among departments	1	2	3	4	5
2.20	A standing committee meets regularly to plan and coordinate the activities among departments	1	2	3	4	5
2.21	There are interdepartmental staff meetings held to coordinate activities among departments	1	2	3	4	5
2.22	A group that is brought together for solving particular problems also coordinates activities among departments	1	2	3	4	5
2.23	Departments often communicate by direct contact	1	2	3	4	5
2.24	Departments often communicate by liaison personnel contact	1	2	3	4	5
2.25	Departments often communicate by temporary task forces	1	2	3	4	5
2.26	Departments often communicate by permanent committees	1	2	3	4	5
2.27	Our company has a formal performance appraisal system	Yes		No		
Even if the company lacks a formal appraisal system, managers do make informal assessments. Please think about how performance assessments affect your behaviors.						
2.28	Performance assessments are used to help make individual department compensation decisions	1	2	3	4	5

2.29 Managers use performance appraisals to help departments improve their performance	1	2	3	4	5
2.30 Departments' formal rewards such as bonuses depend upon performance appraisal results	1	2	3	4	5
2.31 Improving the performance of department is a key objective of performance appraisal	1	2	3	4	5
2.32 A department's performance is more often measured with objective quantifiable results	1	2	3	4	5
2.33 A department's performance appraisals are based on objective, quantifiable results	1	2	3	4	5

Section III : Effectiveness Within the Department

Please rate the following statements regarding the effectiveness of your department.

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

3.1 Working in my department is important to my self-image	1	2	3	4	5
3.2 *I regret having entered my department	1	2	3	4	5
3.3 I am proud to be working in my department	1	2	3	4	5
3.4 *I dislike working in my department	1	2	3	4	5
3.5 *I do not identify with my department	1	2	3	4	5
3.6 I am enthusiastic about my work	1	2	3	4	5
3.7 Our department actively attacks problems	1	2	3	4	5
3.8 Whenever something goes wrong, our department searches for a solution immediately	1	2	3	4	5
3.9 Whenever there is a chance to get actively involved, our department takes it	1	2	3	4	5
3.10 Our department takes initiative immediately, more often than other departments	1	2	3	4	5
3.11 Our department uses opportunities quickly in order to attain goals	1	2	3	4	5

3.12 Our department usually does more than it is asked to do	1	2	3	4	5
3.13 Our department is particularly good at realizing ideas	1	2	3	4	5
3.14 Our department puts in extra hours to get work done	1	2	3	4	5
3.15 Our department pays close attention to important details	1	2	3	4	5
3.16 Our department works harder than necessary	1	2	3	4	5
3.17 Our department asks for challenging work assignments	1	2	3	4	5
3.18 Our department exercises personal discipline and self-control	1	2	3	4	5
3.19 Our department takes the initiative to solve a work problem	1	2	3	4	5
3.20 Our department persists in overcoming obstacles to complete tasks	1	2	3	4	5
3.21 Our department tackles difficult work assignments enthusiastically	1	2	3	4	5
3.22 Our department expects we can work with other departments in the future	1	2	3	4	5
3.23 We expect other departments can help us to recognize and correct our performance in the future	1	2	3	4	5
3.24 We will try to seek opportunities to work with other departments in the future	1	2	3	4	5
3.25 We would be very pleased if other departments continued working with us in the future	1	2	3	4	5

Section IV : Effectiveness between the Departments

Please rate the following statements regarding the effectiveness between the departments in the company.

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

4.1 I would be very happy to spend the rest of my career with our company	1	2	3	4	5
4.2 I really feel as if our company's problems are my own	1	2	3	4	5

4.3 *I do not feel a strong sense of “belonging” to my company	1	2	3	4	5
4.4 I do not feel “emotionally attached” to my company	1	2	3	4	5
4.5 *I do not feel like “part of the family” at our company	1	2	3	4	5
4.6 Our company has a great deal of personal meaning for me	1	2	3	4	5
4.7 Departments work effectively together	1	2	3	4	5
4.8 Departments put considerable effort into their common work	1	2	3	4	5
4.9 Departments care about the quality of the work	1	2	3	4	5
4.10 Departments could all reach or surpass the requests on their work	1	2	3	4	5
4.11 Departments could complete their own tasks responsibly by their own efforts	1	2	3	4	5
4.12 Our company applies its resources and skills to develop new products to attract the new costumers	1	2	3	4	5
4.13 Our company identifies and develops skills to improve their ability to serve existing costumers	1	2	3	4	5
4.14 Our company seeks out information about new markets, products, and technologies from outside sources	1	2	3	4	5
4.15 Our company seeks out and acquires information and new ways to solve multiple problems	1	2	3	4	5

Background Information

1. Which company do you work for? _____
2. Which department are you in? _____
3. Number of employees in your company:
4. Company type:
☐ State-owned ☐ Private company ☐ Joint Venture ☐ Other types: _____
5. Your position in the company : ☐ Higher Level ☐ Middle Level ☐ Lower level
6. How long have you been working in this company?
☐ less than 1 year ☐ 1-2years ☐ 2-5years ☐ 5-7years ☐ more than 7 years
7. Education : ☐ under B.S. ☐ B.S. ☐ M.S. ☐ Ph.D. ☐ Others :
8. Gender : ☐ Male ☐ Female
9. Age: ☐ <25 ☐ 25-30 ☐ 31-35 ☐ 36-40 ☐ 41-45 ☐ 46-50 ☐ >50

Thank You !

APPENDIX III Actual Questionnaire for Departmental Managers in English

Relationships among Departments

Departmental Managers Questionnaire

My PhD research focuses on the effectiveness of interacting among different departments within the company. Please describe the inter-departmental relationships and assess their effects on your company. For each question, a 5-point scale is used (1= Strongly Disagree, 5= Strongly Agree). Please CIRCLE the corresponding number to indicate your agreement with each statement.

I promise that the information you provide will be kept confidential and used only for research purposes. If you have any questions, please feel free to contact me, Ms. Liyan Wang, PhD Candidate, Department of Management, Lingnan University, Hong Kong, (email:lwang@ln.edu.hk, tel: (852)6198-5669).

I very much appreciate your participation.

Section I : Management Climate

Please rate the following statements regarding how management climate affects the relationship between your department and the other departments.

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

1.1 The company demands departments work together closely	1	2	3	4	5
1.2 The company demands departments share resources in formal terms	1	2	3	4	5
1.3 The company encourages departments to act as a whole	1	2	3	4	5
1.4 The company often organizes activities for all departments and asks them to join together	1	2	3	4	5
1.5 The company publishes performance of each department to identify which departments are doing better than others	1	2	3	4	5
1.6 The company encourages departments to compete against each other publicly	1	2	3	4	5

1.7 The company promotes the heads of departments who do better than other heads	1	2	3	4	5
1.8 The company gives prizes to the departments with obvious achievements, but pay little attention to other departments	1	2	3	4	5
1.9 The company stipulates that the rewards for departments depend on their own performance, not their relationship with whole company or other departments.	1	2	3	4	5
1.10 The company guarantees that every department is rewarded according to only its performance rather than compare their performance with other departments	1	2	3	4	5
1.11 Our company encourages departments to have a “we are in it together” attitude	1	2	3	4	5
1.12 Our company seeks a solution that will be good for all of the departments	1	2	3	4	5
1.13 Our company treats conflict between departments as a mutual problem to solve	1	2	3	4	5
1.14 Departments work together so that, to the fullest extent possible, they can get what they really want	1	2	3	4	5
1.15 Our company combines the best of positions to make an effective decision	1	2	3	4	5
1.16 There is strong two-way communication while resolving conflicts in our company	1	2	3	4	5
1.17 Departments engage in joint problem solving while resolving conflicts	1	2	3	4	5
1.18 Other departments demand that we agree to their position					
1.19 Other departments want us to make concessions but do not want to make concessions themselves					
1.20 Other departments treat conflict as a win-lose contest					
1.21 Other departments overstate their position to get their way.					

Section II : Interdependence among Departments

Please rate the following statements about the interdependence and resource sharing

among the departments

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

2.1 Departments find fair ways to benefit from each other abilities	1	2	3	4	5
2.2 Departments use their abilities to accomplish goals	1	2	3	4	5
2.3 Departments combine their abilities effectively	1	2	3	4	5
2.4 Departments encourage each other to develop their abilities	1	2	3	4	5
2.5 Departments appreciate each other's abilities	1	2	3	4	5
2.6 Departments express their own views directly to each other	1	2	3	4	5
2.7 Departments listen carefully to each other's opinions	1	2	3	4	5
2.8 Departments try to understand each other's concerns	1	2	3	4	5
2.9 Departments try to use each other's ideas	1	2	3	4	5
2.10 Even when they disagree, departments communicate respect for each other	1	2	3	4	5
2.11 Departments work for decisions they both accept	1	2	3	4	5
2.12 All views are listened to, even if they are in the minority	1	2	3	4	5
2.13 Departments use their opposing views to understand the problem	1	2	3	4	5
2.14 In our company, all company employees are approachable, regardless of that person's rank or position	1	2	3	4	5
2.15 In our company, there is ample opportunity for informal "hall talk" among individuals from different departments	1	2	3	4	5
2.16 In our company, employees from different departments feel comfortable contacting each other when the need arises	1	2	3	4	5
2.17 In our company, managers discourage employees from discussing work-related matters with those who are not their immediate superiors or subordinates	1	2	3	4	5
2.18 Departments often communicate by direct contact	1	2	3	4	5
2.19 Departments often communicate by liaison personnel contact	1	2	3	4	5
2.20 Departments often communicate by temporary task forces	1	2	3	4	5

2.21 Departments often communicate by permanent committees 1 2 3 4 5

Section III : Effectiveness Within the Department

Please rate the following statements regarding the effectiveness of your department.

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

3.1 Working in my department is important to my self-image 1 2 3 4 5

3.2 *I regret having entered my department 1 2 3 4 5

3.3 I am proud to be working in my department 1 2 3 4 5

3.4 *I dislike working in my department 1 2 3 4 5

3.5 *I don not identify with my department 1 2 3 4 5

3.6 I am enthusiastic about my work 1 2 3 4 5

3.7 Our department puts in extra hours to get work done 1 2 3 4 5

3.8 Our department pays close attention to important details 1 2 3 4 5

3.9 Our department works harder than necessary 1 2 3 4 5

3.10 Our department asks for challenging work assignments 1 2 3 4 5

3.11 Our department exercises personal discipline and self-control 1 2 3 4 5

3.12 Our department takes the initiative to solve a work problem 1 2 3 4 5

3.13 Our department persists in overcoming obstacles to complete tasks 1 2 3 4 5

3.14 Our department tackles difficult work assignments enthusiastically 1 2 3 4 5

3.15 Our department expects to be able to work with other departments effectively in the future 1 2 3 4 5

3.16 We expect other departments can help us to recognize and correct our performance in the future 1 2 3 4 5

3.17 We will try to seek opportunities to work with other departments in the future 1 2 3 4 5

3.18 We would be very pleased if other departments continued 1 2 3 4 5

working with us in the future

Section IV : Effectiveness between the Departments

Please rate the following statements regarding the effectiveness between the departments in the company.

1 Strongly Disagree 2 Somewhat Disagree 3 Neutral 4 Somewhat Agree 5 Strongly Agree

4.1 I would be very happy to spend the rest of my career with our company	1	2	3	4	5
4.2 I really feel as if our company's problems are my own	1	2	3	4	5
4.3 *I do not feel a strong sense of "belonging" to my company	1	2	3	4	5
4.4 I do not feel "emotionally attached" to my company	1	2	3	4	5
4.5 *I do not feel like "part of the family" at our company	1	2	3	4	5
4.6 Our company has a great deal of personal meaning for me	1	2	3	4	5
4.7 Departments work effectively together	1	2	3	4	5
4.8 Departments put considerable effort into their common work	1	2	3	4	5
4.9 Departments care about the quality of the work	1	2	3	4	5
4.10 Departments could all reach or surpass the requirements of their work	1	2	3	4	5
4.11 Departments could complete their own tasks responsibly by their own efforts	1	2	3	4	5
4.12 Company applies its resources and skills to develop new products to attract the new costumers	1	2	3	4	5
4.13 Company identifies and develops skills to improve their ability to serve existing costumers	1	2	3	4	5
4.14 Company seeks out information about new markets, products, and technologies from outside sources	1	2	3	4	5
4.15 Company seeks out and acquires information and new ways to solve multiple problems	1	2	3	4	5

Background Information

1. Which company do you work for? _____
2. Which department are you in? _____
3. Number of employee in your company:
4. Company type:
☐ State-owned ☐ Private company ☐ Joint Venture ☐ Other types: _____
5. Your company's profit increased over the past year:
☐ <0 ☐ 0-5% ☐ 5-10% ☐ 10-15% ☐ >15%
6. Your rewards improved over the past year:
☐ <0 ☐ 0-5% ☐ 5-10% ☐ 10-15% ☐ >15%
7. Your salary improved over the past year:
☐ <0 ☐ 0-5% ☐ 5-10% ☐ 10-15% ☐ >15%
8. Your position in the company : ☐ Higher Level ☐ Middle Level ☐ Lower level
9. How long have you been working in this company?
☐ less than 1 year ☐ 1-2years ☐ 2-5years ☐ 5-7years ☐ more than 7 years
10. Education : ☐ under B.S. ☐ B.S. ☐ M.S. ☐ Ph.D. ☐ Others :
11. Gender : ☐ Male ☐ Female
12. Age: ☐ <25 ☐ 25-30 ☐ 31-35 ☐ 36-40 ☐ 41-45 ☐ 46-50 ☐ >50

Thank You !

APPENDIX IV Actual Questionnaire for Departmental Members in Chinese

企业各部门之间相互合作情况调查问卷 部门员工用问卷

如何采用有效的管理措施，提高各部门之间的团队合作，日益成为企业界和学术界关心的重要课题。我的博士毕业论文主要就是进行这方面的实证研究。请您站在公司职能或业务部门的角度，根据您所在公司的具体情况，评估各部门间的合作关系和工作绩效，并在相应的数字上划圈，以表明您对该说法的同意程度（1“非常不同意”，5“非常同意”）。答案没有对错之分，关键是要反映您的看法。您所提供的信息仅供学术研究，并会得到严格保密。非常感谢您的帮助！

第一部分：部门之间的关系

I. 请您根据贵公司各部门之间的关联度和资源共享状况，回答下列问题：

	1=非常不同意	2=有些不同意	3=中立/不确定	4=有些同意	5=非常同意
1.1 各部门同舟共济	1	2	3	4	5
1.2 各部门希望大家都能取得成功	1	2	3	4	5
1.3 各部门追求的目标是可以相容的	1	2	3	4	5
1.4 各部门的目标能达成一致	1	2	3	4	5
1.5 当不同的部门在一起工作时，通常有共同的工作目标	1	2	3	4	5
1.6 工作时，各部门以本部门目标为重，而相对忽视其他部门的目标	1	2	3	4	5
1.7 各部门之间有一种你胜我败或我胜你败的对立关系	1	2	3	4	5
1.8 各部门之间喜欢互相显示自身的优越	1	2	3	4	5
1.9 各部门的目标互相冲突、不相容	1	2	3	4	5
1.10 每个部门优先考虑自己想完成的事情，而把其他部门的事放在次要位置	1	2	3	4	5

	1=非常不同意	2=有些不同意	3=中立/不确定	4=有些同意	5=非常同意	
1. 11	每个部门都只做自己份内的事情	1	2	3	4	5
1. 12	每个部门喜欢只凭自身的独立工作获得成功	1	2	3	4	5
1. 13	每个部门只为自己部门的目标努力工作	1	2	3	4	5
1. 14	任何一个部门的成功与其他部门的成功无关	1	2	3	4	5
1. 15	每个部门只关注自己要独立完成的事情	1	2	3	4	5
1. 16	各部门能相互取长补短，彼此受益	1	2	3	4	5
1. 17	各部门能充分利用各自的资源来实现公司的整体目标	1	2	3	4	5
1. 18	各部门能将各自的资源有效的整合起来	1	2	3	4	5
1. 19	各部门能相互鼓励，不断提高各自的能力	1	2	3	4	5
1. 20	各部门欣赏其他部门的才干	1	2	3	4	5
1. 21	各部门直截了当向其他部门发表自己部门的观点和看法	1	2	3	4	5
1. 22	各部门认真倾听其他部门的想法和意见	1	2	3	4	5
1. 23	各部门尽量去理解其他部门的顾虑或所关心的问题	1	2	3	4	5
1. 24	各部门工作时愿意参考其他部门的想法和意见	1	2	3	4	5
1. 25	各部门即使不同意其他部门的想法，也会相互尊重	1	2	3	4	5
1. 26	各部门会为达成互相认可的决策方案而努力	1	2	3	4	5
1. 27	部门之间会听取所有的观点和看法，即使是少数人的意见，也会认真考虑	1	2	3	4	5
1. 28	在决策或解决问题时，各部门会对正反两方面的想法和意见加以考虑	1	2	3	4	5
1. 29	各部门之间很少有相互交流和信息共享	1	2	3	4	5
1. 30	任何一个部门的发展和兴衰对整个公司都非常重要	1	2	3	4	5
1. 31	如果公司的某个部门有困难，其他部门会尽力伸出援助之手	1	2	3	4	5
1. 32	各部门认为，与其他部门之间的合作会给各自带来快乐	1	2	3	4	5
1. 33	各部门之间相互合作时，都感到很愉快	1	2	3	4	5

	<i>1=非常不同意</i>	<i>2=有些不同意</i>	<i>3=中立/不确定</i>	<i>4=有些同意</i>	<i>5=非常同意</i>
1.34 各部门只关心和喜欢做自己的事情	1	2	3	4	5
1.35 各部门认为保持自己的独特性非常重要	1	2	3	4	5
1.36 大多数情况下，各部门都是靠自己，得不到其他部门的帮助	1	2	3	4	5
1.37 各部门认为自己很独特，而不太与其他部门打交道	1	2	3	4	5
1.38 各部门希望自己与众不同	1	2	3	4	5

第二部分：工作关系

请您根据所在部门与其他部门工作关系的实际情况，回答下面的问题

2.1 各部门需要从其他部门获得信息和支持，以完成好工作任务	1	2	3	4	5
2.2 各部门在完成任务时需要相互支持和配合	1	2	3	4	5
2.3 各部门工作相关性不大，工作过程中不需要与其他部门合作	1	2	3	4	5
2.4 各部门须紧密合作，才能很好的完成任务	1	2	3	4	5
2.5 当公司获得成功时，所有部门都会得到相应的奖励	1	2	3	4	5
2.6 各部门得到的奖励取决于公司的总体业绩	1	2	3	4	5
2.7 当公司的总体业绩很好时，各部门都会分享其荣誉	1	2	3	4	5
2.8 部门之间的一个共识是：当企业所有部门取得成功时，每个部门会得到相应回报	1	2	3	4	5
2.9 各部门认为所做出的贡献都应得到相应的回报	1	2	3	4	5
2.10 公司采用跨部门小组来探讨如何改善管理，提高效率	1	2	3	4	5
2.11 公司采用跨部门小组来解决涉及公司的难题	1	2	3	4	5
2.12 公司管理层确实肯花时间访问和听取各部门意见，以改进工作	1	2	3	4	5
2.13 公司通过表扬、奖励和发放奖金的形式让各部门觉得自己是赢者	1	2	3	4	5
2.14 在公司里，员工可以接近任何一个人，而不管其职位的高低	1	2	3	4	5
2.15 公司内，不同部门的员工有充足的机会进行非正式的“大厅交	1	2	3	4	5

	1=非常不同意	2=有些不同意	3=中立/不确定	4=有些同意	5=非常同意
谈”					
2.16 公司内，不同部门的员工在需要与其他部门联系时，觉得恰当、适应，不会有不舒服的感觉	1	2	3	4	5
2.17 公司管理者不鼓励员工与非直属上司或下属的人讨论与工作有关的事情	1	2	3	4	5
2.18 公司指派正式的协调员来协调部门之间的工作	1	2	3	4	5
2.19 部门之间的工作通过非正式渠道协调（比如，直接联系另一部门的成员，该成员可能掌握所需要的信息）	1	2	3	4	5
2.20 公司通过常设委员会定期举行会议，计划和协调部门之间的工作	1	2	3	4	5
2.21 通过举行跨部门员工会议协调部门间的工作	1	2	3	4	5
2.22 通过为解决特定问题而成立的小组来完成部门间的工作协调	1	2	3	4	5
2.23 部门之间通常采取直接接触的方式进行沟通	1	2	3	4	5
2.24 部门之间通常是通过联络人员进行沟通的	1	2	3	4	5
2.25 部门之间的沟通通常是通过临时任务小组进行的	1	2	3	4	5
2.26 部门之间通常通过常设委员会进行沟通	1	2	3	4	5
2.27 公司有正规的绩效评估体系/制度	1 没有				2 有
即使公司没有正规的绩效评估制度，管理者对各部门表现也会作非正式评估，请根据你所在公司的实际情况，回答下面的问题。					
2.28 绩效评估帮助决定单个部门的薪酬分配	1	2	3	4	5
2.29 管理者通过绩效评估帮助提高单个部门的工作表现（或业绩）	1	2	3	4	5
2.30 各部门奖金或花红的发放取决于业绩评估的结果	1	2	3	4	5
2.31 绩效评估的一个重要目标是提高部门的工作表现（或业绩）	1	2	3	4	5
2.32 部门的业绩更多的用客观、量化的指标来衡量	1	2	3	4	5
2.33 公司在客观、量化的基础上对各部门进行绩效评估	1	2	3	4	5

1=非常不同意 2=有些不同意 3=中立/不确定 4=有些同意 5=非常同意

第三部分：部门的工作效能

请您根据所在部门的实际情况，回答下面的问题

3.1	在本部门工作对我的个人形象很重要	1	2	3	4	5
3.2	我很后悔加入我所在部门工作	1	2	3	4	5
3.3	在本部门工作对我而言是一种荣耀	1	2	3	4	5
3.4	我不喜欢在本部门工作	1	2	3	4	5
3.5	我不认同我所在的部门	1	2	3	4	5
3.6	我热爱目前的工作	1	2	3	4	5
3.7	我们部门会主动钻研问题	1	2	3	4	5
3.8	每当有事情出错时，我们部门就会立刻寻找解决问题的办法	1	2	3	4	5
3.9	我们部门常常会抓住积极投入工作的机会	1	2	3	4	5
3.10	在工作上，我们部门比其他部门成员更多的采取主动	1	2	3	4	5
3.11	为达到目标，我们部门能很快抓住机会	1	2	3	4	5
3.12	我们部门通常会做比要求更多的事情	1	2	3	4	5
3.13	我们部门非常善于把想法变成现实	1	2	3	4	5
3.14	我们部门有时要加班加点，才能完成任务	1	2	3	4	5
3.15	我们部门非常注重工作中的重要细节	1	2	3	4	5
3.16	我们部门工作时会竭尽全力	1	2	3	4	5
3.17	我们部门主动承担有挑战性的工作任务	1	2	3	4	5
3.18	我们部门能锻炼个人的自律性和自我控制能力	1	2	3	4	5
3.19	我们部门能积极主动地解决工作中碰到的问题	1	2	3	4	5
3.20	我们部门能持之以恒地克服难以完成任务	1	2	3	4	5
3.21	我们部门积极解决有难度的工作任务	1	2	3	4	5

	<i>1=非常不同意</i>	<i>2=有些不同意</i>	<i>3=中立/不确定</i>	<i>4=有些同意</i>	<i>5=非常同意</i>
3.22 我们部门希望以后还能和其他部门共事	1	2	3	4	5
3.23 我们部门希望其他部门可以帮助我们改进工作中的不足之处	1	2	3	4	5
3.24 我们部门会努力寻找机会以便以后还能和其他部门一起共事	1	2	3	4	5
3.25 如果以后一直能和其他部门共事的话，我们会非常高兴	1	2	3	4	5

第四部分：公司的工作效能

请您根据所在公司的实际情况，回答下面的问题

4.1 我愿意把余下的职业生涯奉献给这家公司	1	2	3	4	5
4.2 我会把公司的问题当成我个人的问题	1	2	3	4	5
4.3 我对公司没有很强的归属感	1	2	3	4	5
4.4 我对公司没什么感情	1	2	3	4	5
4.5 在这家公司，我感受不到自己是“大家庭”的一员	1	2	3	4	5
4.6 在公司工作对我个人来讲有非常多的意义	1	2	3	4	5
4.7 公司各部门之间能有效合作	1	2	3	4	5
4.8 公司各部门会为共同的任务，付出相当的努力	1	2	3	4	5
4.9 公司各部门很重视完成任务的质量	1	2	3	4	5
4.10 公司各部门能达到甚至超过所要求的工作标准	1	2	3	4	5
4.11 公司各部门各负其责，独立完成各自的分工，以确保公司能按时完成任务	1	2	3	4	5
4.12 公司不断利用资源和技术开发新产品，吸引新的客户	1	2	3	4	5
4.13 公司不断提高自身能力，以服务好现有客户	1	2	3	4	5
4.14 公司注重从外面获取有关新市场、新产品和新技术等的信息	1	2	3	4	5
4.15 公司不断获取新的信息和方法，用以解决各种问题	1	2	3	4	5
4.16 各部门能了解其他部门的有关信息，并从中学习	1	2	3	4	5

	1=非常不同意	2=有些不同意	3=中立/不确定	4=有些同意	5=非常同意	
4.17	各部门能了解其他部门的工作计划，并从中学习	1	2	3	4	5
4.18	各部门能了解其他部门的工作状况（或进展），并从中学习	1	2	3	4	5
4.19	各部门能了解其他部门的工作（或管理）方法，并从中学习	1	2	3	4	5
4.20	各部门能了解其他部门的工作业绩（或成效），并从中学习	1	2	3	4	5
4.21	各部门能了解其他部门的有关文档资料，并从中学习	1	2	3	4	5
4.22	各部门能分享其他部门积累的有关知识，并从中学习	1	2	3	4	5
4.23	各部门能了解其他部门做得好的事例，并从中学习	1	2	3	4	5
4.24	各部门能了解其他部门做得好的方面，并从中学习	1	2	3	4	5
4.25	各部门能了解其他部门做得好的管理者或员工，并从中学习	1	2	3	4	5
4.26	各部门能了解其他部门成功的经验，并从中学习	1	2	3	4	5
4.27	各部门能了解其他部门做得不好的事例，并从中学习	1	2	3	4	5
4.28	各部门能了解其他部门做得不好的方面，并从中学习	1	2	3	4	5
4.29	各部门能了解其他部门做得不好的管理者或员工，并从中学习	1	2	3	4	5
4.30	各部门能了解其他部门失败的教训，并从中学习	1	2	3	4	5
4.31	与同行业公司相比，本公司在产品或服务的质量上有竞争优势	1	2	3	4	5
4.32	与同行业公司相比，本公司在及时响应顾客需求上有竞争优势	1	2	3	4	5
4.33	与同行业公司相比，本公司在成本上有竞争优势	1	2	3	4	5
4.34	与同行业公司相比，本公司在市场份额上有竞争优势	1	2	3	4	5
4.35	与同行业公司相比，本公司在满足顾客需要上有竞争优势	1	2	3	4	5
4.36	与同行业公司相比，本公司在员工技能上有竞争优势	1	2	3	4	5
4.37	与同行业公司相比，本公司在员工团队合作精神上有竞争优势	1	2	3	4	5
4.38	与同行业公司相比，本公司在员工责任心和忠诚度上有竞争优势	1	2	3	4	5
4.39	与同行业公司相比，本公司在声誉上具有竞争优势	1	2	3	4	5

		1=非常不同意	2=有些不同意	3=中立/不确定	4=有些同意	5=非常同意
4.40	与同行业公司相比，本公司在赢利性上有竞争优势	1	2	3	4	5
4.41	与同行业公司相比，本公司在投资回报率（ROI）上有竞争优势	1	2	3	4	5
4.42	与同行业公司相比，本公司在净资产收益率（ROE）上有竞争优势	1	2	3	4	5

背景资料：

1. 您所在公司是：_____
2. 您所在部门是：_____
3. 您的姓名：_____
4. 公司大致人数：_____
5. 公司性质： 1 股份有限公司 2 有限责任公司 3 其他 请注明_____
6. 在贵公司，您的职位属于： 1 高层 2 中层 3 基层员工
7. 您在本公司工作时间：
☐ <1 年 ☐ 1-2 年 ☐ 2-5 年 ☐ 5-7 年 ☐ >7 年
8. 您的学历： 1 大学以下 2 大学 3 硕士 4 博士 5 其他 请注明_____
9. 您的性别： 1 男 2 女
10. 年龄： ☐ <25 ☐ 25-30 ☐ 31-35 ☐ 36-40 ☐ 41-45 ☐ 46-50 ☐ >50

如果您对本研究有任何的查询，请联系：王丽岩 博士研究生，香港岭南大学管理系，电话：（00852）6198—5669，电邮：lwang@ln.edu.hk。多谢您参与本研究！

APPENDIX V Actual Questionnaire for Departmental Managers in Chinese

企业各部门之间相互合作情况调查问卷 部门领导问卷

如何采用有效的管理措施，提高各部门之间的团队合作，日益成为企业界和学术界关心的重要课题。我的博士毕业论文主要就是进行这方面的实证研究。请您站在公司职能或业务部门的角度，根据您所在公司的具体情况，评估各部门间的合作关系和工作绩效，并在相应的数字上划圈，以表明您对该说法的同意程度（1“非常不同意”，5“非常同意”）。答案没有对错之分，关键是要反映您的看法。您所提供的信息仅供学术研究，并会得到严格保密。非常感谢您的帮助！

第一部分：企业文化

I. 请您根据贵公司的实际情况，回答下列问题：

1=非常不同意 2=有些不同意 3=中立/不确定 4=有些同意 5=非常同意

1.1 公司要求各部门紧密合作	1	2	3	4	5
1.2 公司明确要求各部门共享资源	1	2	3	4	5
1.3 公司鼓励各部门联手行动，齐心协力	1	2	3	4	5
1.4 公司经常举办活动，邀请所有部门同事参加	1	2	3	4	5
1.5 公司定期公布各部门的业绩 以突显工作做得好的部门	1	2	3	4	5
1.6 公司鼓励部门之间的公开竞争	1	2	3	4	5
1.7 公司提拔表现突出的部门主管	1	2	3	4	5
1.8 公司对于业绩突出的部门予以奖励，但对其他部门漠不关心	1	2	3	4	5
1.9 公司只根据部门的业绩来提供奖励，而不考虑其与公司整体或其他部门的关系	1	2	3	4	5
1.10 公司保证只根据每个部门的业绩进行奖励，而不是与其他部门攀比	1	2	3	4	5

1=非常不同意 2=有些不同意 3=中立/不确定 4=有些同意 5=非常同意

1. 11	我们公司鼓励各部门“同舟共济”的态度	1	2	3	4	5
1. 12	我们公司寻求对大家（各部门）都有利的解决方案	1	2	3	4	5
1. 13	公司把部门间的冲突认为是双方都要解决的问题	1	2	3	4	5
1. 14	各部门要团结一致，尽最大可能，实现各自的理想。	1	2	3	4	5
1. 15	公司综合各种意见的优点来做出有效的决策	1	2	3	4	5
1. 16	在解决部门冲突时，公司有很强的双向沟通机制	1	2	3	4	5
1. 17	解决冲突时，公司喜欢将各部门联合起来、一起解决问题	1	2	3	4	5
1. 18	其他部门喜欢要求我们部门同意他们的观点	1	2	3	4	5
1. 19	其他部门都想让我们部门做出让步，而他们自己却不想让步	1	2	3	4	5
1. 20	其他部门把冲突看成是决定胜负的竞争	1	2	3	4	5
1. 21	其他部门过分强调自己的立场，以达到目的	1	2	3	4	5
1. 22	各部门之间很少有相互交流和信息共享	1	2	3	4	5
1. 23	任何一个部门的发展和兴衰对整个公司都非常重要	1	2	3	4	5
1. 24	如果公司的某个部门有困难，其他部门会尽力伸出援助之手	1	2	3	4	5
1. 25	各部门认为，与其他部门之间的合作会给各自带来快乐	1	2	3	4	5
1. 26	各部门之间相互合作时，都感到很愉快	1	2	3	4	5
1. 27	各部门只关心和喜欢做自己的事情	1	2	3	4	5
1. 28	各部门认为保持自己的独特性非常重要	1	2	3	4	5
1. 29	大多数情况下，各部门都是靠自己，得不到其他部门的帮助	1	2	3	4	5
1. 30	各部门认为自己很独特，而不太与其他部门打交道	1	2	3	4	5
1. 31	各部门希望自己与众不同	1	2	3	4	5

第二部分：工作关系

1=非常不同意 2=有些不同意 3=中立/不确定 4=有些同意 5=非常同意

请根据您所在部门与其他部门工作关系的实际情况，回答下面的问题

2.1 各部门能相互取长补短，彼此受益	1	2	3	4	5
2.2 各部门能充分利用各自的资源来实现公司的整体目标	1	2	3	4	5
2.3 各部门能将各自的资源有效地整合起来	1	2	3	4	5
2.4 各部门能相互鼓励，不断提高各自的能力	1	2	3	4	5
2.5 各部门欣赏其他部门的才干	1	2	3	4	5
2.6 各部门直截了当向其他部门发表自己部门的观点和看法	1	2	3	4	5
2.7 各部门认真倾听其他部门的想法和意见	1	2	3	4	5
2.8 各部门尽量去理解其他部门的顾虑或所关心的问题	1	2	3	4	5
2.9 各部门工作时愿意参考其他部门的想法和意见	1	2	3	4	5
2.10 各部门即使不同意其他部门的想法，也会相互尊重	1	2	3	4	5
2.11 各部门会为达成互相认可的决策方案而努力	1	2	3	4	5
2.12 部门之间会听取所有的观点和看法，即使是少数人的意见，也会认真考虑	1	2	3	4	5
2.13 在决策或解决问题时，各部门会对正反两方面的想法和意见加以考虑	1	2	3	4	5
2.14 在公司里，员工可以接近任何一个人，而不管其职位的高低	1	2	3	4	5
2.15 公司内，不同部门的员工有充足的机会进行非正式的“大厅交谈”	1	2	3	4	5
2.16 公司中不同部门的员工在需要与其他部门联系时，觉得恰当、适应，不会有不舒服的感觉	1	2	3	4	5
2.17 公司管理者不鼓励员工与非直属上司或下属的人讨论与工作有关的事情	1	2	3	4	5
2.18 部门之间通常采取直接接触的方式进行沟通	1	2	3	4	5
2.19 部门之间通常是通过联络人员进行沟通的	1	2	3	4	5

1=非常不同意 2=有些不同意 3=中立/不确定 4=有些同意 5=非常同意

2.20	部门之间的沟通通常是通过临时任务小组进行的	1	2	3	4	5
2.21	部门之间通常通过常设委员会进行沟通	1	2	3	4	5

第三部分：部门的工作效能

请您根据所在部门的实际情况，回答下面的问题

3.1	在本部门工作对我的个人形象很重要	1	2	3	4	5
3.2	我很后悔加入我所在部门工作	1	2	3	4	5
3.3	能在本部门工作我感到很骄傲	1	2	3	4	5
3.4	我不喜欢在本部门工作	1	2	3	4	5
3.5	我不认同我所在的部门	1	2	3	4	5
3.6	我热爱目前的工作	1	2	3	4	5
3.7	我们部门有时要加班加点，才能完成任务	1	2	3	4	5
3.8	我们部门非常注重工作中的重要细节	1	2	3	4	5
3.9	我们部门工作时会竭尽全力	1	2	3	4	5
3.10	我们部门主动承担有挑战性的工作任务	1	2	3	4	5
3.11	我们部门能锻炼个人的自律性和自我控制能力	1	2	3	4	5
3.12	我们部门能积极主动地解决工作中碰到的问题	1	2	3	4	5
3.13	我们部门能持之以恒地克服难以完成任务	1	2	3	4	5
3.14	我们部门积极解决有难度的工作任务	1	2	3	4	5
3.15	我们部门希望以后还能和其他部门共事	1	2	3	4	5
3.16	我们部门希望其他部门可以帮助我们改进工作中的不足之处	1	2	3	4	5
3.17	我们部门会努力寻找机会以便以后还能和其他部门一起共事	1	2	3	4	5
3.18	如果以后一直能和其他部门共事的话，我们会非常高兴	1	2	3	4	5

1=非常不同意 2=有些不同意 3=中立/不确定 4=有些同意 5=非常同意

第四部分：公司的工作效能

请您根据所在公司的实际情况，回答下面的问题

4.1 我愿意把余下的职业生涯奉献给这家公司	1	2	3	4	5
4.2 我会把公司的问题当成我个人的问题	1	2	3	4	5
4.3 我对公司没有很强的归属感	1	2	3	4	5
4.4 我对公司没什么感情	1	2	3	4	5
4.5 在这家公司，我感受不到自己是“大家庭”的一员	1	2	3	4	5
4.6 在公司工作对我个人来讲有非常多的意义	1	2	3	4	5
4.7 公司各部门之间能有效合作	1	2	3	4	5
4.8 公司各部门会为共同的任务，付出相当的努力	1	2	3	4	5
4.9 公司各部门很重视完成任务的质量	1	2	3	4	5
4.10 公司各部门能达到甚至超过所要求的工作标准	1	2	3	4	5
4.11 公司各部门各负起责，独立完成各自的分工，以确保公司能按时完成任务	1	2	3	4	5
4.12 公司不断利用资源和技术开发新产品，吸引新的客户	1	2	3	4	5
4.13 公司不断提高自身能力，以服务好现有客户	1	2	3	4	5
4.14 公司注重从外面获取有关新市场、新产品和新技术等的信息	1	2	3	4	5
4.15 公司不断获取新的信息和方法，用以解决各种问题	1	2	3	4	5
4.16 各部门能了解其他部门的有关信息，并从中学习	1	2	3	4	5
4.17 各部门能了解其他部门的工作计划，并从中学习	1	2	3	4	5
4.18 各部门能了解其他部门的工作状况（或进展），并从中学习	1	2	3	4	5
4.19 各部门能了解其他部门的工作（或管理）方法，并从中学习	1	2	3	4	5
4.20 各部门能了解其他部门的工作业绩（或成效），并从中学习	1	2	3	4	5

1=非常不同意 2=有些不同意 3=中立/不确定 4=有些同意 5=非常同意

4.21	各部门能了解其他部门的有关文档资料，并从中学习	1	2	3	4	5
4.22	各部门能分享其他部门积累的有关知识，并从中学习	1	2	3	4	5
4.23	各部门能了解其他部门做得好的事例，并从中学习	1	2	3	4	5
4.24	各部门能了解其他部门做得好的方面，并从中学习	1	2	3	4	5
4.25	各部门能了解其他部门做得好的管理者或员工，并从中学习	1	2	3	4	5
4.26	各部门能了解其他部门成功的经验，并从中学习	1	2	3	4	5
4.27	各部门能了解其他部门做得不好的事例，并从中学习	1	2	3	4	5
4.28	各部门能了解其他部门做得不好的方面，并从中学习	1	2	3	4	5
4.29	各部门能了解其他部门做得不好的管理者或员工，并从中学习	1	2	3	4	5
4.30	各部门能了解其他部门失败的教训，并从中学习	1	2	3	4	5
4.31	与同行业公司相比，本公司在产品或服务的质量上有竞争优势	1	2	3	4	5
4.32	与同行业公司相比，本公司在及时响应顾客需求上有竞争优势	1	2	3	4	5
4.33	与同行业公司相比，本公司在成本上有竞争优势	1	2	3	4	5
4.34	与同行业公司相比，本公司在市场份额上有竞争优势	1	2	3	4	5
4.35	与同行业公司相比，本公司在满足顾客需要上有竞争优势	1	2	3	4	5
4.36	与同行业公司相比，本公司在员工技能上有竞争优势	1	2	3	4	5
4.37	与同行业公司相比，本公司在员工团队合作精神上有竞争优势	1	2	3	4	5
4.38	与同行业公司相比，本公司在员工责任心和忠诚度上有竞争优势	1	2	3	4	5
4.39	与同行业公司相比，本公司在声誉上具有竞争优势	1	2	3	4	5
4.40	与同行业公司相比，本公司在赢利性上有竞争优势	1	2	3	4	5
4.41	与同行业公司相比，本公司在投资回报率（ROI）上有竞争优势	1	2	3	4	5
4.42	与同行业公司相比，本公司在净资产收益率（ROE）上有竞争优势	1	2	3	4	5

背景资料：

11. 您所在公司是： _____
12. 您所在部门是： _____
13. 您的姓名： _____
14. 公司大致人数： _____
15. 公司性质： 1 股份有限公司 2 有限责任公司 3 其他 请注明 _____
16. 贵公司去年收益增长大约为：
- ☐ <0 ☐ 0-5% ☐ 5-10% ☐ 10-15% ☐ >15%
17. 您去年奖金或者花红的收入增长大约为
- ☐ <0 ☐ 0-5% ☐ 5-10% ☐ 10-15% ☐ >15%
18. 您去年工资收入增长大约为
- ☐ <0 ☐ 0-5% ☐ 5-10% ☐ 10-15% ☐ >15%
19. 在贵公司，您的职位属于： 1 高层 2 中层 3 基层员工
20. 您在本公司工作时间：
- ☐ <1 年 ☐ 1-2 年 ☐ 2-5 年 ☐ 5-7 年 ☐ >7 年
21. 您的学历： 1 大学以下 2 大学 3 硕士 4 博士 5 其他 请注明 _____
22. 您的性别： 1 男 2 女
23. 年龄： ☐ <25 ☐ 25-30 ☐ 31-35 ☐ 36-40 ☐ 41-45 ☐ 46-50 ☐ >50

如果对于本研究有任何的查询，请联系：王丽岩 博士研究生，香港岭南大学管理系，电话：（00852）6198—5669，电邮: lwang@ln.edu.hk。多谢您参与本研究！

REFERENCE

- Abrams, D., & Hogg, M. A. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. *European Journal of Social Psychology*, 18, 317-334.
- Abrams, D., & Hogg, M. A. (1999). *Social identity and social cognition*. Oxford, UK: Blackwell.
- Aitsahlia, F., Johnson, E., & Will, P. (1995). Is concurrent engineering always a sensible proposition? *IEEE Transactions on Engineering Management*, 42, 166-170.
- Alderfer, C. P. (1977). Group and intergroup relations. In J. R. Hackman & J. L. Suttle (ed.) *In Improving Life at Work* (pp. 227-296). Santa Monica: Goodyear.
- Alderfer, C. P. (1987). An intergroup perspective on group dynamics. In J. Lorsch (ed.) *Handbook of Organizational Behavior* (pp. 190-222). Englewood Cliffs, NJ: Prentice-Hall.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18.
- Alper S, Tjosvold, D. & Law, K. S. (1998). Interdependence and controversy in group decision making: antecedents to effective self-managing teams. *Organizational Behavior and Human Decision Processes* 74, 33-52.
- Alper, S., Tjosvold, D. & Law, K. S. (2000). Conflict management, efficacy, and performance in organizational teams. *Personnel Psychology*, 53, 625-642
- Armstrong, M. & Murlis, H. (1991). Reward Management: *A Handbook of Remuneration strategy & Practice* (2nd Ed: pp. 211-239). London: Kogan Page.
- Ashforth, B. E. & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14, 20-39.
- Balzer, W. K., & Sulsky, L. M. (1992). Halo and performance appraisal research: A critical examination. *Journal of Applied Psychology*, 77 (6), 975-985
- Babbie, E. R. (1998). *The Practice of Social Research* (pp. 254-278). Wadsworth Publishing Company. Belmont, California.

- Barker, J., Tjosvold, D., & Andrews, I. R. (1988). Conflict approaches of effective and ineffective managers: A field study in a matrix organization. *Journal of Management Studies*, 25, 167-178.
- Baker, T. L. (1994). *Doing Social Research* (2nd Ed.), New York: McGraw-Hill Inc.
- Balzer, W. K., & Sulsky, L. M. (1992). Halo and performance appraisal research: A critical examination. *Journal of Applied Psychology*, 77 (6), 975-985.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
- Barney, J. B. (2001). Is the resource-based “view” a useful perspective for strategic management research? Yes. *Academy of Management Review*, 26, 41-56.
- Bentler, P.M., & Bonnett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structure. *Psychological Bulletin*, 88, 588-606.
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods and Research*, 16, 78-117.
- Bentler, P. M. & Wu, E. J. C. (1995). *EQS for Macintosh user's guide*. Encino, CA: Multivariate Software, Inc.
- Blake R. R. & Mouton J. S. (1970). The fifth achievement. *Journal of Applied Behavioral Science*, 6, 413-426.
- Blake, R. P., Shepard, H. A., & Mouton, J. S. (1964). *Managing Intergroup Conflict in Industry*. Houston: Gulf.
- Bornstein, G. & Erev, I. (1994). The enhancing effect of intergroup competition on group performance. *International Journal of Conflict Management*, 5, 271-283.
- Brass, D. J. (1985). Technology and the structuring of jobs: Employee satisfaction, performance, and influence. *Organizational Behavior and Human Decision Processes*, 35, 216-240.
- Brett, J. & Rognes, J. K. (1986). Intergroup relations in organizations. In P. S. Goodman (ed.) *Designing Effective Work Groups*. San Francisco: Jossey-Bass.
- Brewer, M. B. & Campbell, D. T. (1976). *Ethnocentrism and intergroup attitudes: East African evidence*. New York: Sage.

- Brewer, M. B. & Gardner, W. (1996). Who is this “we”? Levels of collective *identity and self representations*. *Journal of Personality and Social Psychology*, 71, 83-93.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1, 185-216.
- Callero, P. (1985). Role-identity salience. *Social Psychology Quarterly*, 48, 203-215.
- Campion, M. A., Medsker, G. J., & Higgs, C. A. (1993). Relations between work group characteristics and effectiveness: Implications for designing effective work groups. *Personal Psychology*, 46, 823-850.
- Campion, M. A., Papper, E. A., & Medsker, G. J. (1996). Relations between team characteristics and effectiveness: A replication and extension. *Personal Psychology*, 49, 429-452.
- Capozza, D., & Brown, R. J. (Eds.). (2000). *Social identity processes*. London: Sage.
- Chen, C. C., Peng, M. W., & Saporito, P. A. (2002). Individualism, collectivism, and opportunism: A cultural perspective on transaction cost economics. *Journal of Management*, 28, 567-583.
- Chen, G., & Tjosvold, D. (2004). Organizational Values and Procedures for Goal Interdependence and Interdepartmental Effectiveness. *Paper, Society of Industrial and Organizational Psychology*, Chicago.
- Chen, G., & Tjosvold, D., & Wang, L. (2004, December). Conflict Management for Effective Inter-Department Relationships in China: The Role of Collectivist and Individualist Values. *Paper, Asian Academy of Management*. Shanghai, China
- Cohen, S.G. & Ledford, G.E. (1994), The effectiveness of self-managing teams: A quasiexperiment. *Human Relations*, 47(1), 13-43.
- Colquitt, J. A., Hollenbeck, J. R., Ilgren, D. R., Le Pine, J. A., & Sheppard, L. (2002). Computer-assisted communication and team decision-making performance: The moderating effect of openness to experience. *Journal of Applied Psychology*, 87, 402-410.
- Crampton, S.M., & Wagner, J.S. (1994). Percept-Percept inflation in micro-organizational research: An investigation of prevalence and effect. *Journal of Applied Psychology*, 79, 67-76.

- Cummings, T. G. (1978). Self-regulating work groups: A socio-technical analysis. *Academy of Management Review*, 3, 625-634.
- Denison, D. R., Hart, S. L., & Kahn, J. A. (1996). From chimneys to cross-functional teams: Developing and validating a diagnostic model. *Academy of Management Journal*, 39, 1005-1023.
- Deutsch, M. (1949a). An experimental study of the effects of cooperation and competition upon group processes. *Human Relations*, 2, 199-231.
- Deutsch, M. (1949b). A theory of cooperation and competition. *Human Relations*, 2, 129-151.
- Deutsch, M. (1973). *The resolution of conflict*. New Haven, CT: Yale University Press.
- Donnellon, A. (1996). *Team talk: The power of language in team dynamics*. Boston: Harvard Business School Press.
- Dutton, J. M. & Walton, R. E. (1966). Interdepartmental Conflict and Cooperation: Two Contrasting Studies. *Human Organization*, 25, 207-220.
- Eccles, R.G., & Crane, D. B. (1988). *Doing deals: Investment banks at work*. Boston: Harvard Business School Press.
- Ensign, P. C. (1998). Interdependence, coordination, and structure in complex organizations: Implications for organization design. *The Mid-Atlantic Journal of Business*, 34(1), 5-22.
- Ellemers, N., Spears, R., & Doosje, B. (Eds.). (1999). *Social identity*. Oxford, UK: Blackwell.
- Erev, I., Bornstein, G., & Galili, R. (1993). Constructive intergroup competition as a solution to the free rider problem: a field experiment. *Journal of Experimental Social Psychology*, 29, 463-478.
- Freud, S. (1921). *Group psychology and the analysis of the ego*. London: Hogarth Press.
- Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European Review of Social Psychology*, 4, 1-26.
- Galbraith, J. (1973). *Designing Complex Organizations*. Reading, MA: Addison-Wesley Publishing Co.

- George, J. M. & Bettenhausen, K. (1990). Understanding prosaic behavior, sales performance, and turnover: A group-level analysis in a service context. *Journal of Applied Psychology*, 75, 48-54.
- Goodman, P. S., Devadas, R. & Griffith-Hughson, T. L. (1988). Groups and productivity: Analyzing the effectiveness of self-managing teams. In J. P. Campbell & R. J. Campbell (Eds.). *Productivity in organizations: New Perspectives from industrial and organizational psychology*. San Francisco: Jossey-Bass, 295-327.
- Guzzo, R. A. & Shea, G. P. (1992). Group performance and intergroup relations in organizations. In M. D. Dunnette & L. M. Hough (eds), *Handbook of Industrial and Organizational Psychology*, 3, 269-313.
- Hogg, M. A., (2000a). Social identity and social comparison. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 401-421). New York: Kluwer/Plenum.
- Hogg, M. A. (2000b). Subjective uncertainty reduction through self-categorization: A motivational theory of social identity processes. *European Review of Social Psychology*, 11, 223-255.
- Hogg, M. A. (2001c). Social identity and the sovereignty of the group: A psychology of belonging. In C. Sedikides & M. B. Brewer (Eds.). *Individual self, relational self, and collective self: Partners, opponents, or strangers*. Philadelphia, PA: Psychology Press.
- Hogg, M. A. (2001d). Social categorization, depersonalization, and group behavior. In M. A. Hogg & R. S. Tindale (Eds.), *Blackwell handbook of social Psychology: Group processes* (pp. 56-85). Oxford, UK: Blackwell.
- Hogg, M. A. (2003). Social identity. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 462-479). New York: Guilford.
- Hogg, M. A., & Terry, D. J. (Eds.). (2001). *Social identity processes in organizational contexts*. Philadelphia, PA: Psychology Press.
- Hogg, M. A., & Williams, K. D. (2000). From I to we: Social identity and the collective self. *Group Dynamics: Theory, Research, and Practice*, 4, 81-97.
- Hume, D. A. (1988). *Reward Management: Employee Performance, Motivation and Pay* (pp. 55-71). Oxford: Blackwell.

- Insko, C. A., Schopler, J., Kennedy, J. F., Dahl, K. R., Graetz, K. A., & Drigotas, S. M. (1992). Individual-group discontinuity from the differing perspectives of Campbell's realistic group conflict theory and Tajfel and Turner's social identity theory. *Social Psychology Quarterly*, 55, 272-291.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69, 85-98.
- Jassawalla, A.R. & Sashittal, H.C. (1998). An examination of collaboration in high-technology new product development processes. *Journal of Product Innovation management*, 15, 237-254.
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40, 256-282.
- Jehn, K. A. (1997). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly*, 42, 530-557.
- Johnson, D. W. & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Company.
- Johnson, D. W., G. Maruyama, R. T. Johnson, D. Nelson, & S. Skon. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta- analysis. *Psychological Bulletin*, 89, 47-62.
- Keller, R. T. (2001). Cross-functional projects groups in research and new product development: Diversity, Communications, Job Stress and Outcomes. *Academy of Management Journal*, 44(3), 547-555.
- Kiggundu, M. N. (1981), Task Interdependence and the Theory of Job Design, *Academy of Management Review*, 6, 499-508.
- Kiggundu, M. N. (1983). Task interdependence and job design: Test of a theory. *Organizational Behaviour and Human Performance*, 31, 145-172.
- Kouzes, J. M. & Posner, B. Z. (1995). *The leadership challenge: How to keep getting extraordinary things done in organizations*. San Francisco: Jossey-Bass.
- Kramer, R. (1991). Intergroup relations and organizational dilemmas. *Research in Organizational Behavior*, 13, 191-228.

- Lawrence, P., and J. Lorsch. (1967). *Organization and Environment*. Cambridge, MA: Harvard University Press.
- Lax, D.A. & Sebenius, J.K. (1986). *The Manager as Negotiator. Bargaining for Cooperation and Competitive Gain*. Free Press: New York
- Leung, K. (1997). Negotiation and reward allocations across cultures. In P. C. Earley & M. Erez (Eds.) *New perspectives on international industrial/organizational psychology* (pp. 640 -675). San Francisco: Jossey Bass.
- Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: New relationships and realities. *Academy of Management Review*, 23, 438-458.
- March, J. G. & Simon, H. A. (1993). *Organizations*. New York: Wiley.
- Mathieu, J. E. & Farr, J. L. (1991). Further evidence for the discriminant validity of measures of organizational commitment, job involvement, and job satisfaction. *Journal of Applied Psychology*, 76, 127, 133.
- Mathieu, J. E., Hofmann, D. A., & Farr, J. L. (1993). Job perception-job satisfaction relations: An empirical comparison of three competing theories. *Organizational Behavior and Human Decision Processes*, 56, 370-387.
- McCann, J.E. & Galbraith J. R. (1981). Interdepartmental relations. In P. C. Nystrom & W. H. Starbuck (Eds.) *Handbook of Organization Design* (pp. 60-84). New York: Oxford University Press.
- Messick, D. M., & Mackie, D. M. (1989). Intergroup relations. *Annual Review of Psychology*, 40, 45-81.
- Meyer J. P., Allen N. J. & Smith C. A. (1993). Commitment to organizations and occupations: Extension and test of a three component conceptualization. *Journal of Applied Psychology*, 78, 538-551.
- Michael, B. (1984). Reward systems. In B. Michael, B. Spector, P. R. Laurence, and D. Q. Mills, (Eds.) *Managing Human Assets*. The Free Press, New York.
- Mohr, L. B. (1971). Organizational technology and organizational structure. *Administrative Science Quarterly*, 16, 444-459.
- Mohrman, S. A., Cohen, S. G., & Mohrman, A. M. (1995). *Designing team-based organizations: New forms for knowledge work*. San Francisco: Jossey-Bass.

- Morehand, R. L., Hogg, M. A., & Hains, S. C. (1994). Back to the future: Social psychological research on groups. *Journal of Experimental Social Psychology*, 30, 527-555.
- Morris, M.W., Leung, K., Ames, D., & Lickel, B. (1999). Views from inside and outside: Integrating emic & etic insights about culture & justice judgments. *The Academy of Management Review*, 24 (4), 781-796.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. San Diego, CA: Academic Press.
- Mowday, R. T., Steers, R. M. & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14, 224-247.
- Murphy, k. R., Jako, R., & Anhalt, R. (1993). Nature and consequence of halo error: A critical analysis. *Journal of Applied Psychology*, 78, 218-225.
- Nash, A. N., & Carroll, S. J. (1975). *The management of Compensation*. Monterey, Calif.: Brooks/Cole.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill Book Company.
- Pelled L. H. & Adler P. S. (1994). Antecedents of intergroup conflict in multifunctional product development teams: A conceptual model. *Transactions on Engineering Management* 41(1), 21-28
- Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the work force*. Boston: Harvard Business School Press.
- Pfeffer, J. & Salancik, G. R. (1977). Organization design: The case for a coalitional model of organizations. *Organizational Dynamics*, 6, 15-29
- Polit, D. F., Beck, C. T. and Hungler, B. P. (2001). *Essentials of Nursing Research: Methods, Appraisal and Utilization* (5th Ed.), Philadelphia: Lippincott Williams & Wilkins
- Pondy, L. R. (1967). Organizational conflict: Concepts and models. *Administrative Science Quarterly*, 12, 296-320
- Porter, M.E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. NY, Free Press.

- Pruitt, D. G., & Carnevale, P. J. (1993). *Negotiation in social conflict*. Buckingham: Open University Press.
- Rubin, J. Z., Pruitt, D. G., & Kim, S. (1994). *Social conflict: Escalation, stalemate, and settlement*. New York: McGraw-Hill.
- Saavedra, R., Barley, P. C., & van Dyne, L. (1993). Complex interdependence in task-performing groups. *Journal of Applied Psychology*, 78, 61-72.
- Serpe, R. T. (1987). Stability and change in self: A structural symbolic interactionist explanation. *Social Psychological Quarterly*, 50, 40-55.
- Sherif, M. (Ed.) (1962). *Intergroup relations and leadership*. New York: Wiley.
- Sherif, M. (1966). *In common Predicament: Social Psychology of Intergroup Conflict and Cooperation*. Boston: Houghton Mifflin.
- Sherif, M., Harvey, O. J., White, B. J., Hood, W., & Sherif, C. (1961). *Intergroup conflict and cooperation: The Robbers Cave Experiment*. Norman, OK: University of Oklahoma Institute of Intergroup Relations.
- Slocum, J. W., & Sims, H. P. (1980). A typology for integrating technology, organization, and job design. *Human Relations*, 33, 193-212.
- Spector, P. E. (1992). A consideration of the validity and meaning of self-report measures of job conditions. *International Review of Industrial and Organizational Psychology*, 7, 123-151.
- Spector, P.E. & Brannick, M.T. (1995). The nature and effects of method variance in organizational research. *International Review of Industrial and Organizational Psychology*, 10, 249-274.
- St. John, C. H & Hall, E. H. (1991). The interdependence between marketing and manufacturing. *Industrial Marketing Management*, 5, 6-19.
- Stanne, M. B., Johnson, D. W., & Johnson, R. T. (1999). Does competition enhance or inhibit motor performance: A meta-analysis. *Psychological Bulletin*, 125, 133-154.
- Stryker, S. (1968). Identity salience and role performance. *Journal of Marriage and the Family*, 30, 558-564.

- Stryker, S. (1980). *Symbolic Interactionism: A Social Structural Version*. Menlo Park: Benjamin/Cummings.
- Stryker, S. (1982). Symbolic interactionism: Themes and variations. In M. Rosenberg and R. H. Turner (ed.). *Social Psychology: Sociological Perspectives*. New York: Basic Books.
- Susman, G. (1976). *Autonomy at work: a sociotechnical analysis of participative management*. New York: Praeger.
- Swamidass, P. M., & Aldridge, M. D. (1996). Ten rules for timely task completion in cross-functional teams. *Research-Technology Management*, 39, 12-13.
- Tajfel, H. (1978). Social categorization, social identity, and social comparison. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 61-66). London: Academic Press.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1-39.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin and S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, Calif.: Brooks/Cole.
- Tajfel, H. & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.
- Thoits, P. A. (1991). On merging identity theory and stress research. *Social Psychology Quarterly*, 54, 101-112.
- Thomas K.W. (1976). Conflict and conflict management. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (pp. 889-935), Rand McNally: Chicago.
- Thompson, James D. (1967). *Organizations in Action: Social Science Bases of Administration*. New York: McGraw-Hill.
- Tjosvold, D. (1982). Effects of the approach to controversy on superiors' incorporation of subordinates' information in decision making. *Journal of Applied Psychology*, 67, 189-193.

- Tjosvold, D. (1984). Cooperation theory and organizations. *Human Relations*, 37(9), 743-767.
- Tjosvold, D. (1998). The cooperative and competitive goal approach to conflict: Accomplishments and challenges. *Applied Psychology: An International Review*, 47, 285-313.
- Tjosvold, D. & Deemer, D. K. (1980). Effects of controversy within a cooperative or competitive context on organizational decision-making. *Journal of Applied Psychology*, 65, 590-595.
- Tjosvold, D. & Johnson, D. W. (1977). The effects of controversy on cognitive perspective taking. *Journal of Educational Psychology*, 69, 679-685.
- Tjosvold, D., & Sun, H. (2003). Openness among Chinese in conflict: Effects of direct discussion and warmth on integrated decision making. *Journal of Applied Social Psychology*, 33, 1878-1897.
- Tjosvold, D., Johnson, D. W., & Fabrey, L. (1980). Effects of controversy and defensiveness on cognitive perspective-taking. *Psychological Reports*, 47, 1043-1053.
- Tjosvold, D., Johnson, D. W., & Lerner, J. (1981). Effects of affirmation and acceptance on incorporation of opposing information in problem-solving. *Journal of Social Psychology*, 114, 103-110.
- Tjosvold, D., Law, K. S. & Sun, H. (2003). Collectivistic and individualistic values: Their effects on group dynamics and productivity in China. *Group Decision and Negotiation*, 12, 243-263.
- Tomasic, R. (1991). Chinese walls, legal principle and commercial reality in multi-service professional firms. *University of New South Wales Law Journal*, 14, 46-72.
- Triandis, H. C. (1990). Cross cultural studies of individualism and collectivism. In J. J. Berman (Ed.), *Nebraska Symposium on Motivation* (Vol. 37, 41--133). Lincoln: University of Nebraska Press.
- Triandis, H. C., McCusker, C. & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, 59, 1006-1020.

- Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behavior. *European Journal of Social Psychology*, 5, 5-34.
- Turner, J. C. (1982). Toward a cognitive redefinition of the social group. In H. Tajfel (Eds.), *Social identity and intergroup relations* (pp. 15-40). Cambridge, UK: Cambridge University Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.
- Van der Vegt, G., Emans, B., & van der Vliert, E. (1998). Motivating effects of task and outcome interdependence in work teams. *Group and Organization Management*, 23(2), 124-143.
- Van Knippenberg, D. (2000). Work motivation and performance: A social identity perspective. *Applied Psychology: An International Review*, 49, 357-371.
- Van Knippenberg, D. (2003). Intergroup relations in organizations. In M. West, D. Tjosvold, & K.G. Smith (Eds) *International Handbook of Organizational Teamwork and Cooperative Working*. Chichester: Wiley.
- Victor, B. & Blankburn, R. S. (1987). Interdependence: An Alternative Conceptualization. *Academy of Management Review*, 12(3), 486-498.
- Walton, R. E. (1986). A vision-led approach to management restructuring. *Organizational Dynamics*, 14(4), 5-16.
- West, M. A. (2002). Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology: An International Review*, 51, 355-424.
- Worchel, S., Morales, J. F., Paez, D., & Deschamps, J. C. (Eds.). (1998). *Social identity: International perspectives*. London: Sage.