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**The Interconnection of Supervisor-subordinate *guanxi* and  
Psychological Contract Processes in the Context of Chinese Banking  
Call Center**

**By**

**Yu Xiang**

**Thesis submitted in fulfillment of the requirement for the degree of  
Doctor of Business Administration (DBA)**

**Durham University Business School**

**2016**

## ABSTRACT

The broad aim of this study is to understand and model the nature of the psychological contract and its breaches within the relatively un-researched context of the Chinese banking call center industry, and uses the results to arrive at recommendations for improving supervisor-subordinate relationships in these and similar situations, with a particular focus on responding to the questions regarding how employee work attitudes remain positive when negative experience arise (i.e., breach of psychological contract) within high-quality of social exchange relationship.

The thesis builds upon two studies, each having its own objective: *Study one* seeks to investigate the contents and the structure of the psychological contract of banking call center employees in China; *Study two* contains two parts. In the first part, it first redefines the indigenous concept supervisor-subordinate *guanxi* (SSG) in the context of Chinese banking call center, and then to examine the relationship between SSG quality and its effects on employee work attitudes. Based on this, it develops and tests a mediation model in which perceived breaches of psychological contract (PCB) is hypothesized as partially mediating such a relationship; *The second parts of Study two* intends to investigate the moderating effect of SSG quality in the relationship between perceived PCB and employee work attitudes.

The main results of this investigation suggest that the structure of psychological contract in Chinese banking call center employees exhibits three-dimensions, namely, interpersonal, development, and normal. Moreover, perceived PCB is found to partially mediate the effects of SSG quality on affective commitment, organizational identification, job satisfaction, and turnover intention. Our results also reveal that SSG quality moderates the relationship between contract breach and employee work attitudes. The findings of the present study highlight the interconnection of SSG quality and psychological contract processes. Additionally, this study also shed light on several important issues for managerial practice in the same or similar contexts.

## **DECLARATION**

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# **Chapter One – Introduction**

## **1.1. Prologue**

Individual employees behaving differently at the workplace are probably one of the most noteworthy problems in organizational psychology. The reasons behind this situation may vary in complexity and take numerous forms. One approach to the issue entails looking at the organizational context (e.g., job characteristics). Another approach requires focusing on the characteristics of individuals within the organization (e.g., personality of an individual). Still another approach involves combining the organizational context and the characteristics of the individual to establish how the combination affects various employee attitudes and behaviors. With this mind, this thesis uses the psychological contract as the entry point to make an in-depth exploration.

The concept of a psychological contract is rooted in the notion of social exchange (Blau, 1964). Such a contract is a powerful determinant of employee behaviors and attitudes in an organization (Schein, 1980). At the same time, it offers an alternative perspective and gives genuine insights into the relationship between an individual employee and the organization, where the individual works (Conway & Briner, 2005). The concept of a psychological contract sheds light on the following: (1) the implicit nature of individual beliefs or perceptions surrounding this exchange-based relationship with the organization, (2) how these beliefs or perceptions are shaped by the organization, and (3) the ways by which the relationship may go wrong. Thus, the concept is widely studied in the field of organizational psychology to gather insights into the behavioral and attitudinal responses of employees toward their employment relationship (Guest, 1998). Such knowledge is particularly important because organizations are keen to predict employee reactions in the employment relationship in order to improve their understanding of complex organizational behavior topics, such as turnover intention, affective commitment,

organizational identification, and job satisfaction (Grant, 2010; Sparrow, 1998).

As opposed to a legal contract, which contains a formal agreement and is often written down or explicitly verbalized between two parties (Cullinane & Dundon, 2006), a psychological contract concerns an exchange relationship and is based on subjective perceptions and beliefs of the individual about mutual obligations between themselves and the other party (e.g., the employer) (Rousseau & Tijoriwala, 1998). In other words, while some part of this exchange relationship may be explicit and agreed on, most of it remains implicit. As indicated by Yuan and Dejun (2002), the psychological contract has considerable effects on the behaviors and attitudes of the employee. It can likewise be considered a form of mental bond that maintains employment relationships within organizations. Moreover, it is very personalized and can vary across people, organizations, and time, with little agreement on the terms of the exchange relationship between an individual employee and the organization (Petersitzke, 2009). When employees believe their organization has met its obligations and kept the promises they perceive were made to them (i.e., perceived fulfillment of psychological contract), then positive responses are possible consequences, such as satisfaction with current jobs, high commitment to the organization, and a desire to stay. By contrast, if such promises are broken or mutual obligations are violated (i.e., perceived breach of psychological contract), negative responses may follow (Conway & Briner, 2005). Clearly, the effective management of the psychological contracts of employees is a significant practical challenge to organizations.

Given the importance of the notion of a psychological contract, in the past two decades, a great number of theoretical and empirical investigations have emerged to take the psychological contract as a key analytical device in conceptualizing, exploring, and understanding the employment relationship and, more generally, the employee attitudes and behaviors. However, despite a surge of interest in psychological contracts, limited studies have been conducted in the Chinese context.

As numerous researchers have pointed out, owing to the cultural difference between China and western countries, the employment relationship between employees and their employers, as well as the psychological contracts of Chinese employees and their response in employment relationships, are likely to differ greatly from the west (Lu et al., 2015). Therefore, this thesis attempts to narrow down the current research gap by conducting a series of empirical project studies in a typical Chinese banking call center and examining the psychological contract of employees. Although the banking call center industry in China has a big slice in the labor market with its rapid growth in the recent year, it remains under-researched because of the difficulty in obtaining access to conduct in-house research. A brief introduction on call centers in China and the organizational context of the studied banking call center are in the next sections.

## **1.2. Call centers in China**

A call center, also called customer interaction center, emerged in the US in the late 1970s. It is a centralized office where the customer service representatives (CSRs) interact with customers and provide them with inbound (e.g., information inquiries) or outbound (e.g., telemarketing) services via telephone, email, fax, or online chat (Sadien, 2010). As an industry with global proportions, call centers have been developing at a very fast pace in the past two decades. The global annual growth rate of call centers is estimated at 45% (Schalk & Rijckevorsel, 2007). The Global Call Center Report by Holman et al. (2007) covers over 2500 call centers in 17 countries may provide some evidences about the development of this industry. Thus, the rapid development of the industry results in a growing number of organizations that use call centers as a cornerstone for establishing a solid relationship with their current and potential customers. Call centers have emerged as a key player in the service industry across the world, with approximately two-thirds (more than 10 million) of employees in the industry working within these units (Das et al., 2012). In particular, 3% of the workforce in the USA and 2.5% of the

workforce in Europe are employed in call centers (Schalk & Rijckevorsel, 2007).

The call center, nowadays, has become a part of an organization's strategic customer relationship management (CRM) system for managing the current and future customers of a typical organization. In general, a call center is operated in an extensive and open workplace, in which work stations are equipped with computers, display screens, and telephone sets. Such work stations typically have instant access to information. A great number of call centers are open 24 hours a day, 365 days per year, and they can be operated independently or networked with other centers in an organization through its computer network or a set of new technology systems called computer telephony integration (CTI). For example, a typical call center can be located in China, but serve clients in the US. Thus, a modern call center can be regarded as a special business that integrates advanced technologies and specific management practices.

In China, call centers constitute a relatively new phenomenon with less than 16 years of history. However, the last 10 years have witnessed the rapid growth of call centers, with an annual growth rate estimated at over 60%, according to the China Financial Call Center League (CFCCL) (2014). CFCCL's report estimates that 2000 call centers in existence in China by the end of 2014, and they have employed more than 1.2 million CSRs in total. The cumulative investment in the call center industry has been more than 115 billion RMB (roughly 12 billion pounds) Specifically, banking call centers in China posted an annual growth rate of over 95% in the last five years, according to the 2014 study of the CFCCL. Such rapid growth can be attributed to the continual opening up of the Chinese banking industry and the recent reforms in Chinese finance policies. Banking call centers in China have recruited over 60% of the total employees in the Chinese call center industry (Huang et al., 2010).

Despite its rapid growth, problems continue to exist in the Chinese call center industry. In defining aspects of the work process, high turnover, repetitive tasks, shit



work, stress and burnout, low autonomy in work tasks, psychological aggression from angry customers, and reading out scripted questions and answers have been remarked on by the Chinese media. This has led to the public impression that call center employees are like “human answering machines.” In particular, the rate of employee turnover is considered as the most serious problem faced by the industry in China. For example, several empirical studies have reported annual turnover rates ranging from 35% (Yao, 2010) to 70%. Banking call centers, traditionally recognized by most Chinese as a stable and decent workplace, have an average annual turnover rate of as high as 36% (CFCCCL, 2014). Therefore, attracting and retaining a talented workforce have become top priorities for many Chinese call centers. Finding an effective solution to the high turnover rate in call centers remains a difficult task, but academic researchers have underscored some causal factors. Two primary causes that affect the decision of call center employees to leave are high work-related strain and different employment types.

(1) High work-related strain - Work stress results from perceived pressure that exceeds one’s perceived ability to cope with the demands of the job (Sadien, 2010). The majority of call centers is highly standardized, disciplined, monitored and controlled, and typically employs a wide range of information technology (IT) applications, such as interactive voice response systems (IVR), automated call distribution systems (ACD) and electronic performance-monitoring systems (EPM). The wide use of standardized information software results in low levels of employee discretion, job scope, and job autonomy. In addition, call center work, regarded by some people as “assembly lines in the head” (Deery et al., 2002), is repetitive in nature, such that call center employees typically experience low levels of intrinsic motivation.

Varying customer demands require call centers to operate 24 hours a day and seven days a week (Schalk & Rijckevorsel, 2007), in order to deliver high-quality and effective customer service. However, many call center managers not only emphasize service quality but transaction speed as well. Such dual focus on customer

service and productivity (i.e., answering calls quickly) tends to create a rather unique high-pressure call center environment (Das et al., 2012). Frontline employees (i.e., CSRs), the major labor force in call centers, are often required to offer excellent and extensive customer service within a relatively short time; moreover, they are required to enhance their capability to self-develop specific attributes (Batt, 1999), including good customer relations, excellent interpersonal skills, adaptation to work shifts and long calls, and proficient use of different IT applications. Thus, the unique work environment causes call center employees to experience great workplace-related physical and mental stress.

(2) The existence of different employment types in call centers - Call centers typically have a relatively high number of contingent employees with flexible employment contracts (Schalk & Rijckevorsel, 2007). This flexibility manifests in such things as differences in work hours (i.e., full-time versus part-time), employment contracts (i.e., permanent versus temporary), and length of work hours (i.e., maximum working hours versus minimum working hours per week), among others. According to Kalleberg (2000), call centers use these nonstandard employment relations for two reasons, namely, low-cost and flexible scheduling.

(1) Low-cost strategy - One very important professional characteristic of call center work is finding a balance between the need to be cost-efficient and the desire to be customer-orientated (Deery et al., 2002). These needs result in call centers with a large number of employees who have nonstandard contracts and earn, on average, lower wages than regular employees.

(2) A need for flexible scheduling - The peaking of inbound calls is unpredictable and can differ across months, seasons, or years. Consequently, call centers use nonstandard contracts in order to maintain flexibility in deploying CSRs.

However, many empirical studies (e.g., Guchait & Cho, 2010; Sadien, 2010; Schalk & Rijckevorsel, 2007) have indicated that employees with nonstandard

employment contracts are likely to experience high levels of emotional pressure owing to the lack of growth opportunities, bad wages and low organizational identification, thereby causing high turnover rate and poor performance (Huang et al., 2010).

The situation in China has both similarities and differences with call center scenarios described above. Although Chinese call center employees also experience high levels of work-related strain and emotional pressure, they are different from others in several ways listed below.

(1) The majority of Chinese call center employees, especially those in Chinese banking call centers, are highly educated. The CFCCL report shows that nearly 45% of banking call center employees in China holds at least a university bachelor's degree, with over 50% of the rest having at least a university diploma. Fewer than 1% do not have a university level qualification. One possible reason for the presence of so many highly educated young people in Chinese call centers is the Chinese economy, which is unable to generate good professional jobs for the highly educated young adults, despite the robust growth of the economy. The non-utilization of skills of educated adults in the call center environment leads to high turnover rates (Das et al., 2012).

(2) Most of the Chinese call centers have a significant number of temporary employees. However, the definition of "temporary employee" in Chinese call centers is slightly different from their Western counterparts. Temporary workers in the USA are employed and sent out by temporary help agencies to work on an hourly basis (Kalleberg, 2000). In comparison, temporary workers in China are recruited either by temporary work agencies or by call centers to work under contract for a minimum of one year and a maximum of two years. The Chinese government does not allow call centers to utilize an employee on an hourly basis. Permanent employees, by contrast, often have at least five-year or open-ended contracts. Moreover, temporary employees in Chinese call centers have lower average wages and less career

development opportunities than permanent employees. One empirical study (Yao, 2010) indicated that temporary employees receive approximately 30% to 50% of the annual income of permanent workers, and less than 0.5% of these temporary employees are promoted to middle management positions. Thus, the relatively poor benefits that Chinese call center employees receive and the lack of growth opportunities can also lead to high turnover rates.

In conclusion, research on Chinese call center employees is still in the exploratory stage. Studies conducted on Chinese banking call centers are very limited, possibly because the vast majority of Chinese commercial banks are state-owned enterprises. Thus, it is difficult to gain access to data from those banking call centers for use in any research. However, banking call centers in China are worth studying, which is discussed in the next section.

### **1.3. Organizational context**

Banking call centers in China are worth investigating not only because they have recruited most of the employees in the industry, but also because they are knowledge-, technology-, labor- and capital-intensive and possess some specific features that distinguish them from those in other industries. In particular, the Big Four Chinese state-owned commercial banks have long been considered as one of the most bureaucratic sectors in China. Call centers in the Big Four thus tend to show the deep imprint of hierarchical cultures (Richard et al., 2009). The proposed study was taken at an in-house call center of one of the Big Four state-owned commercial banks, which is briefly described in the subsequent sections.

#### **1.3.1 Overview**

The studied banking call center, founded in 2005, is one of the largest and most well-established service providers in the country and has five sub-centers (in Shanghai, Tianjin, Chongqing, Hefei, and Chengdu). These sub-centers have the same organizational structure, recruitment criteria, performance evaluation standards,

and business management process, but have a slightly different pay scale to reflect the cost of living in different locations. The call center has been developing fast since its establishment. The call center started with less than 100 employees and currently has more than 4000, with a plan of increasing to 5000 in the next few years. Such rapid growth is partly catalyzed by the Chinese Central Government dominated reform of state-owned commercial banks in 2003. Since then, Chinese state-owned commercial banks entered into the “Golden Decade” development period, which lead to a large increase in banking clients, as well as the derived demand for call center services and employees. Moreover, the annual call volume has been recently increasing dramatically from less than 2 million to more than 500 million, with approximately 70% processed by interactive voice response systems and 30% manual handled.

The studied call center runs for 24 hours, throughout the entire year. It provides multi-functional online financial services and customer care to the 480 million clients of the bank. These services range from requests for information to investment suggestions, personal finance, e-banking services, insurance selling, bank loans, and customer satisfaction investigation. Similar to other major banking call centers in China, the call center is highly standardized, disciplined, monitored, and controlled, with extensive system applications of electronic performance monitoring, service quality inspection, automated call distribution, and knowledge base.

The organizational structure of the call center is divided into three offices, namely, front, middle and back offices. The front office contains approximately 85% of the total employees and provides inbound and outbound service supports to clients. The middle office is in charge of service innovation, data mining, service quality control, training, and business supports. The back office includes human resource management, finance, and administrative support. The hierarchy of the front office within the call center is similar to its counterpart in other banks, with the lowest rank occupied by CSRs, who are in turn supervised by team leaders, group heads, front-line managers, and department general managers to oversee information

flows and work processes. By contrast, the hierarchy of the middle and back offices are relatively simple, with general employees managed by section heads and department general managers.

### **1.3.2 Recruitment**

Many Chinese people desire to have the opportunity to work in a state-owned commercial bank and enjoying its stable income and benefits. Thus, the competition for a position in a state-owned commercial bank is fierce. In particular, finding a job in the headquarters can be extremely competitive. A master's degree from a prestigious Chinese university is almost the minimum requirement. In 2013, the studied bank attracted 75,642 applications, but recruited only 68 university graduates to its headquarters.

However, the recruitment requirement in Chinese banking call centers is different because of the existence of temporary employees (mainly CSRs), as mentioned previously. For CSRs, having a university diploma is the minimum requirement, and age must not be more than 30 years old. The recruitment process is often performed by temporary work agencies and banks. The temporary work agencies perform psychometric and personality tests, and the banks interview candidates individually. From the point of the view of the banks, both stages demonstrate the ideal characteristics that candidates should possess to be eligible for the position. By contrast, a bachelor's degree from a prestigious university is the minimum requirement for a permanent position in call centers. In addition to the basic educational attainment requirement, candidates are required to meet other various criteria, such as banking-related majors, English proficiency test results, and social practice proofs. The banks are in charge of the entire recruitment process. Candidates are usually asked to attend two formal writing tests (i.e., psychometric and administrative aptitude) followed by two rounds of individual interviews.

### **1.3.3 Pre-job and on-the-job training**

In contrast to general call centers, banking call centers are knowledge-intensive. Although CSRs can handle different client inquiries with the help of an electronic knowledge-based system, they are still required to be familiar with various financial products to meet client requirements immediately. Therefore, training is vital for call centers. The two types of banking call center training are pre-job and on-the-job trainings. First, the complete pre-job training process for new recruits usually takes two months. In the first month, the bank gives new recruits a brief introduction to its business and to various information technology applications, which they will use subsequently in their work, and provides them with intensive training on business knowledge. In the subsequent month, the new recruits become interns and the bank arranges senior CSRs to pretend to be clients and inquire various questions to the interns through inbound calls. During the pre-job training period, new recruits also get acquainted with their colleagues. Their exchange of experiences is important because it is through such informal interaction that they learn how to be a good call center employee. Second, on-the-job training often takes place once a week after work and mainly focuses on service skills and business knowledge. Occasionally, such training is organized twice a week or more when the bank issues new financial products. In addition, permanent employees are often provided management trainee programs, which are designed and organized by the headquarters.

#### **1.3.4 Income gap**

Similar to other major banking call centers in China, the gap of personal annual income is large between permanent and temporary employees in call centers. In the studied call center, this gap can be as large as three times, which may be attributed to two main reasons. First, as indicated previously, recruitment requirements for permanent positions are significantly higher than those temporary positions. In other words, permanent employees are desired to have a higher income because they obtained their job through more intense competition. Second, temporary employees are often trained to be CSRs, whereas permanent employees are usually management trainees.

### 1.3.5 Self-discipline

The common features of the work environment in Chinese call centers have been identified as repetitive, problem-oriented, restrictive, and having a high control level and process standards, which are similar to that of other call centers worldwide. Similarly, general employees in the studied call center not only experience a high level of work-related strain (e.g., working at night) and emotional pressure (e.g., reassuring angry clients), but also have to follow specific rules concerning modes of conduct and behavior in the workplace strictly. Examples of the Code of Conduct in the studied call center are: “You are not permitted to bring mobile phones and USBs in the workplace,” “You are not allowed to eat and drink inside the workplace,” “You should be at work on time, allowing five minutes before the start of your shift to turn on the computer and open the applications,” and “You should not skip work, and if there are occasions when you have to, you should inform your team leaders on the day before. You should be aware that if you skip work without advanced notice for three times in a year, you are at risk of losing your job.” Moreover, every time CSRs answer a call, they must follow a grid established by the call center, which molds the transaction between CSRs and clients. This grid determines the form and content of conversations. Then, the CSRs will be evaluated according to this grid by quality control groups. These evaluations are made once a month and are divided into three different groups. The first group is related to “speed in resolution”, such as accompanying clients while performing the operations. The second group is concerned with “technical competence”, such as presenting alternatives to clients before presenting limitations. The final group is focused on “amiability and sympathy”, such as having a friendly voice. CSRs regarded these evaluations as one of the most difficult aspects of the job since they are required to display specific emotions in their voices at the same time to control negative emotions.

In summary, although the overall impression in the studied call center is that employees, particularly CSRs, work in a high-pressure environment and are likely to experience job burnout, the situation may not look as dire. Similar to other major



banking call centers in China, the studied call center is rich in social activities. The first type of activities is organized by the call center, such as special holiday parties, sports meetings, singing contests, painting competitions and exhibitions, and lectures beyond work. The other type of activities is run by the teams. Team leaders may organize a dinner after work or take a holiday and travel together with their members. Incurred fees in such team-based activities are usually partly paid by the call center to encourage team leaders to conduct more activities in the future.

#### **1.4. Summary of current research gaps**

Over the past few years, the psychological contract of Chinese call center employees and its interconnection with various factors has attracted considerable academic interest. However, it continues to face three major theoretical shortcomings.

First, current empirical Chinese studies rely heavily on Western measurement scales (e.g., Herriot et al., 1997). This reliance may be partly due to data-collection restrictions in China, that make it difficult to gain access to collecting large-scale data from Chinese enterprises, especially those state-owned. However, one of the major weaknesses of Western scales is that they neglect the culture value of employee orientation when analyzing an individual psychological contract. This disregard is inappropriate because people with different culture values are argued to typically hold different viewpoints towards the same thing (Hui et al., 2004; Wang et al., 2009).

Second, although the role of individual characteristics in employment relationships have long been acknowledged as important (Bellou, 2009), current research that focuses on identifying the relationship between individual demographic variables and their psychological contract has not been sufficiently considered in China (Zhang, 2011).

Third, both perceived breach of psychological contract and the quality of

supervisor – subordinate relationship have significant impact on the work attitudes of employees (Cable, 2008; Han & Altman, 2009). Therefore, many existing empirical studies in China attempt to link these three factors together to explore the relationships among them. However, most scholars simply adopt the concept of the leader-member exchange (LMX) from Western literature to indicate the relationship between supervisor and subordinate in Chinese organizations. Nevertheless, the supervisor-subordinate relationship in the Chinese context has far broader meaning than LMX, which is characterized by communal sharing and is based on sentimental ties deeply influenced by *guanxi* (Cheung & Wu, 2011).

## **1.5. Aims of the thesis**

In order to fulfill abovementioned research gaps, the present study occurred at a call center of one of the Big Four state-owned commercial banks, which is directed toward three main research aims.

Objective 1: The study intends to understand the content and structure of the psychological contract of employees working in the Chinese banking call center. Based on this, it seeks to explore the demographic characteristics of the psychological contracts of those employees.

Rousseau (1995) asserts that the psychological contract is the terms of exchange agreement between employees and their organizations. As indicated previously, banking call centers in China are commonly knowledge, technology, labor and capital intensive. Daily work in the call center is characterized by high levels of discipline, bureaucracy, routinization, isolation, monitoring, and control. Employees are typically young, female, highly educated, and under temporary working contracts. Those industry characteristics and employee peculiarities make Chinese banking call center employees likely to exhibit different patterns of psychological contract than employees elsewhere. However, based on the reviewed literature and available knowledge, limited studies have been conducted in the context of Chinese

banking call centers. This deficiency may be attributed to two reasons. First, the bureaucracy of Chinese banks, especially state-owned commercial banks, makes call center managers often reluctant to allow in-house researchers to obtain sensitive data (e.g., actual turnover rate) that may disgrace the supervisors and affect their promotion negatively. Second, despite its rapid development, the banking call center industry in China remains relatively new, with less than 16 years of history. This industry entered a period of high-speed development just after 2004 (Wei, 2012). Therefore, the first objective is to examine the precise relationships between the perception of Chinese banking call center employees regarding what the organization should offer them and what they would offer in return (i.e., the contents). The contents of the psychological contract were also categorized for further analyses. Moreover, in order to address current research gap in measurement scales, the constructs for this study are developed through Li's (2006) well-established measurement scales to reflect culture factors.

Objective 2: This study seeks to redefine the indigenous Chinese *guanxi* relationship between subordinates and their supervisors in the context of Chinese banking call centers, and to examine the supervisor-subordinate *guanxi* (SSG) relationship and its effects on various employee work attitudes. On the basis of such definition and examination, it intends to develop and test a mediation model in which a perceived breach of psychological contract (PCB) is hypothesized as partially mediating such a relationship.

First, *guanxi* is ubiquitous and extremely important in almost all aspects of Chinese life. Within the supervisor-subordinate relationship, *guanxi* has been commonly defined as the quality of non-work-related personal exchange relationship between a supervisor and a subordinate through informal social interactions (Chen & Tjosvold, 2007). The present thesis argues that LMX is not suitable in this study, and the SSG in the context of Chinese banking call centers contains a broader meaning than the traditional LMX. Therefore, this thesis will first redefine the construct of SSG.

Second, existing empirical studies show that the quality of SSG effectively shapes various employee work attitudes (Chang, 2014; Cheung et al., 2009). This thesis will focus on the effect of SSG quality on four attitudinal variables, namely, affective commitment, organizational identification, job satisfaction, and turnover intention. The main reason is because high employee attrition rate is a significant business problem for call center managers in terms of the loss of talent and its direct effect on substantial financial costs associated with recruitment, screening, training, loss of investment in human capital, and loss of productivity of new employees (Guchait & Cho, 2010). Therefore, employee turnover rate is considered by numerous Chinese banking call centers as the most important assessment indicator. Nevertheless, measures to retain employees are often too late once they have decided and actually resigned (Elansin, 2014). Considerable research shows that the work attitudes of employees toward the organization have the greatest impact on their turnover (Das et al., 2012; Eagly & Chaiken, 1993; Zhang, 2011). Therefore, this thesis will concentrate on employee work attitudes. Moreover, based on discussions with many HR managers in Chinese banking call centers, they asserted that affective commitment, organizational identification, job satisfaction, and turnover intention are the four most closely watched indicators by them. Thus, this thesis will choose to focus on these four attitudinal variables.

Finally, as a vital component of psychological contract theory, PCB provides the primary explanations for why the psychological contract may negatively affect the attitudes of employees. Most associated studies have investigated employee reactions to PCB (e.g., Kickul & Lester, 2000; Robinson & Morrison, 2000), and have found it to be significantly related to turnover intention (Lo & Aryee, 2003), affective commitment (Johnson & O’Leary, 2003), job satisfaction (Gakovic & Tetrick, 2003), and organizational identification (Ngo et al., 2012). Although the cognition of employees that their supervisors have failed to keep promises leads to negative employee responses given that broken promises undermine the trust and support in a social exchange relationship (Tekleab et al., 2005), prior empirical

research suggests that individuals who perceive a high social exchange relationship tend to experience a low level of breach (Dulac et al., 2008). Therefore, the current thesis anticipates that PCB partially mediates the relationship between SSG quality and the four proposed attitudinal variables in the context of Chinese banking call centers.

Objective 3: This study intends to develop a competing model and investigate the moderating effect of SSG quality in the relationship of PCB–employee work attitude in the context of Chinese banking call centers.

It is note that the reaction of employees to PCB depends on the strength of SSG quality. Existing research suggests that the quality of SSG affects the perception of employees that the information conveyed by their supervisors is supportive and credible or manipulative and self-serving (Lu et al., 2015). Employees in high-quality SSG relationships are provided with various supports that may shape their interpretation or attribution processes following negative work experiences. Communications by supervisors from high-quality SSG are likewise considered as having greater credibility and a more positive effect on employee attitudes compared with those by supervisors from low-quality SSG. Various prior studies also suggest that the quality of the supervisor-subordinate relationship moderates PCB–employee outcomes (e.g., Restubog et al., 2010). Thus, this thesis expects SSG quality to moderate the relationship between PCB and affective commitment, organizational identification, job satisfaction, and turnover intention in the proposed moderation model in the context of Chinese banking call centers.

## **1.6. Structure of the thesis**

This thesis comprises five chapters that report on how the studies have been conducted, their empirical findings, as well as the theoretical and practical contributions of the study. Below is a brief summary of the contents of each chapter.

Chapter 1 (Introduction): This chapter provides an introduction to the thesis and

contains a description of the research aims. It also discusses the reason for focusing on the psychological contract of Chinese banking call center employees and highlights the organizational context.

Chapter 2 (Study 1 – Model 1): This chapter explores the contents and structure of the psychological contracts of employees in Chinese banking call centers and examines the influence of various demographic variables on the perspectives of employees with regard to desirable psychological contents. These variables include gender, age, educational attainment, type of employment contract, and tenure. Exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and ordinary least squares regression are used in this chapter.

Chapter 3 (Study 2 – Model 2): Based on the results of Model 1, this chapter links the quality of SSG relationship with affective commitment, organizational identification, job satisfaction, and turnover intention. On this basis, this chapter explores the mediating role of PCB in the SSG–employee work attitude relationship in the context of Chinese banking call centers. Various statistical methods, such as ordinary least squares regression and structural equation modeling (SEM) analysis, are applied for mediation testing.

Chapter 4 (Study 2 - Model 3): As an extension of Model 2, this chapter constructs a moderation model to investigate the moderating effects of SSG quality in the PCB–employee work attitude relationship. Hierarchical regression analysis is used to test the moderated hypothesis.

Chapter 5 (Conclusions): This chapter revisits each of the three study aims and reviews what the author believes are empirical and theoretical contributions to the literature. It also discusses the potential limitations of the study and presents suggestions for further academic research.

# **Chapter Two – Study 1: Patterns in Psychological Contract Obligations in a Chinese Context**

## **2.1. Introduction**

In recent years, there has been considerable growth in the interest in the psychological contract from both academics and practitioners, partly due to the change in employment relationships because of fundamental shifts in the working environment and the nature of work (Turnley et al., 2003). These changes have resulted in a demand for both theoretical and empirical studies on contemporary employment relationships in different working environments. One such example is the call center industry. In many countries, the emergence of call centers has changed the service sector (Cross et al., 2008). As a new thriving industry, there are a number of significant issues surrounding it. For example, Taylor and Bain (1999) described call center employees as “emotional labor” who works in a labor- and knowledge-intensive sector. Bain and Taylor (2000) and Cross et al. (2008) indicated that call centers generally suffer difficulties, for example, because of the high percentage of contract workers, high employee turnover rates and, low levels of employee loyalty and commitment. Many of these issues can be regarded as being attributable to a lack of understanding of call center employees’ psychological contracts. Moreover, a review of literature on the psychological contract suggests that the contents and structure of such contracts can differ significantly between national cultures and industries (Zhang, 2011).

With this in mind, as the first study of this DBA thesis, the purpose of Study 1 is to explore the current state of the psychological contracts of call center employees in the context of the Chinese banking sector. Specifically, it has two major objectives. First, it investigates the contents of the psychological contracts of the participants and as such, delves into the precise relationships between employee perceptions on what the organization should offer them and what they should offer in

return. Second, it examines how those contract contents can be categorized. That is, it identifies the structures of the psychological contracts. Upon satisfying these objectives, the intention is to conduct supplementary analysis and explore potential variations in the participants' perceptions of a desirable psychological contract on the basis of individual demographic characteristics (i.e., gender, age, tenure, educational attainment, and type of employment contract).

## **2.2. Theoretical Position**

### **2.2.1 Psychological contracts**

#### *2.2.1.1 Development and definition*

It is widely recognized that Rousseau's (1989) seminal work provides a key demarcation in the psychological contract's conceptual and empirical development. As such, the historic evolution of the psychological contract research can be divided into two main phases: Pre-Rousseau period and Post-Rousseau period, which are further discussed as follows (Kutaula, 2014).

- ***Pre-Rousseau period***

The term *psychological contract* has evolved since it was first introduced by Argyris (1960) to describe a series of implicit understanding between a group of employees and their foreman, and argued that the employment relationship between the two parties might be developed by exchanging employees' higher productivity and lower grievances in return for job security and acceptable wages (Taylor & Tekleab, 2004). Significantly, this first definition indicated that the employment relationship can be shaped as much as by both social and economic exchanges between the two parties.

Developing this idea further, Levinson et al. (1962) saw the psychological contract as a series of unwritten mutual expectations held by an individual employee



and the organization. These mutual expectations could arise from completely unconscious and thus each party may not even realize their own expectations as well as the expectations of the other party (Coyle-Shapiro & Parzefall, 2008). As indicated by Taylor and Tekleab (2004), one of the main contributions of Levinson et al. (1962) was that their work captured the dynamic nature of the psychological contract and viewed it as subject to the changing needs of each party.

Another commonly cited work in the pre-Rousseau period is by Schein (1965). Although Schein's definition of the psychological contract resembles the definition by Levinson et al. (1962), he placed a strong emphasis on matching expectations between the employee and the organization and reported that these mutual expectations include not only concrete issues (e.g., pay and working hours) but also a whole set of privileges, obligations, and rights.

Following Schein's work, his student, Kotter (1973), conducted an important empirical study based on quantitative survey from middle managers in MIT's Sloan School of Management. This study was the first to measure the content of the psychological contract by using questionnaires, which will be further discussed in section 2.2.2. The results indicated that matches between expectations of employees and their organization were related to greater job satisfaction, productivity and reduced turnover. Moreover, Kotter's research also made contributions by differentiating the psychological contract from legal contract (Kutaula, 2014). Another key empirical study in this period was conducted by Portwood and Miller (1976). They developed the first model on psychological contract. Their longitudinal study was designed with three questionnaires over a period of nine months. The results revealed that the individual's overall job satisfaction and the evaluations of that employee's work performance were positively correlated with the measure of organizational contract compliance.

In brief, only a few studies were active after the concept of the psychological contract was introduced by Argyris (1960) in the pre-Rousseau period. Among those

studies, most of them conceptualized the psychological contract as exchange-based and encompassing mutual expectations. In other words, these expectations are assumed to bind two parties together and need to be addressed jointly to reflect the sources of agreement and disparity (Cullinane & Dundon, 2006). Thus, if either party's expectations changes so does the psychological contract. More specifically, the psychological contract is "*a dynamic one which must be constantly renegotiated*" (Schein, 1988). However, the work forming in this period is still marked by divergences (Coyle-Shapiro & Parzefall, 2008) and ambiguous (Conway & Briner, 2009). For instance, Levinson et al. (1962) considered these expectations as being based on needs rather than on promises. Schein (1965) mainly focused on the matching of expectations between the two parties and reinforced the importance of the organization's perspective along with the employee view. Yet, those studies in the pre-Rousseau period are critical in providing solid foundations for the development of the psychological contract during the Rousseau period.

#### ● ***Post-Rousseau period***

Post-Rousseau period is marked with Rousseau's seminal article on the psychological contract research in 1989, which is widely acknowledged as a turning point where the early understanding of the concept moved to that which is prevalent in contemporary research on the psychological contract literature (Coyle-Shapiro & Parzefall, 2008; George, 2009). Rousseau (1989) conceived the psychological contract to be:

*"An individual's beliefs regarding the terms and conditions of the reciprocal exchange agreement between that focal person and another party. Key issues here include the belief that a promises has been made and a consideration offered in exchange for it, binding the parties to some set of reciprocal obligations."* (Rousseau, 1989, p.123).

The psychological contract under Rousseau's definition has the following characteristics. First, it is an individual's belief in some set of reciprocal obligations between the focal person and another party. Second, there is an offer of consideration

by the focal person in exchange for promises that another party will reciprocate. Third, both promises and considerations are predominantly subjective, which may only exist “*in the eye of the beholder*” (Rousseau, 1989).

The key differences between Rousseau’s re-conceptualization of the psychological contract and previous researches are discussed as follows: First, she introduced the cognitive-perceptual definition of the psychological contract, which focuses on the unilateral and singular level of the individual rather than a bilateral relationship. In other words, previous studies emphasized the nature of the contract involving two interconnected parties (i.e., “matched” expectations), whereas for Rousseau the focus moves to the individual employee’s idiosyncratic perceptions. Second, in contrast to the early definition of the psychological contract that emphasized expectations between two parties and considered some deep level motives (e.g., basic human needs) as driving forces that formed those expectations (Conway & Briner, 2005), Rousseau’s definition placed greater emphasis on the promissory nature of the psychological contract and asserts that a psychological contract is formulated solely in the mind of an individual employee and, as such, should reflect the individual’s beliefs, shaped by the employer, in terms of a reciprocal exchange agreement between the focal employee and the employer (Rousseau & Tijoriwala, 1998). Finally, early studies sought to find a reasonable “match” between the inputs contributed by two parties, and irrespective of what had actually been promised between them. Rousseau, on the other hand, proposes the idea of “violation” as the main mechanism to link the psychological contract with its various outcomes (George, 2009).

Rousseau’s (1989) paper has triggered numerous follow-up studies in this field. Agarwal (2014) claimed that there were roughly 702 studies relating to psychological contract in the period 1972 to 2013 (July), with only less than 10 studies were conducted before Rousseau period. For instance, David E. Guest and Neil Conway published various reports on Chartered Institute of Personnel Development (CIPD)

publishing to investigate different constructs linked to the psychological contract, such as motivation (1997), fairness (1998), organizational change (2001a) and employee wellbeing (2004). Rousseau (2001) was among the first scholars to investigate the formation of the psychological contract. Morrison and Robinson (1997) developed a theoretical model to distinguish between the two distinct concepts of psychological contract breach and violation. Conway and Briner (2005) published their book *Understanding Psychological Contract at Work*. This is considered as the most extensive review of the psychological contract research to date. Moreover, interest in the field of psychological contract also expanded to other fields such as marketing (e.g., Wu & Zhang, 2013), hospitality management (e.g., Lub et al., 2012), and service management (e.g., Deery et al., 2006).

All in all, although Rousseau's work is regarded as having had the greatest influence on contemporary psychological contract research (Freese, 2007), it does not imply that all scientific choices Rousseau made in re-conceptualization of the psychological contract are widely accepted. In fact, the introduction of Rousseau's definition was the start of fierce academic arguments, which will be discussed in more details in the next section.

#### *2.2.1.2 Major theoretical issues on definitions*

Rousseau's (1989) paper has triggered a vigorous debate in the literature about how to appropriately define the concept of the psychological contract. Among those debates, there are two major issues that need to be addressed: one is concerned with expectations, obligations and promises; the other with agents and mutuality.

- ***Issue one: expectations, obligations and promises***

As discussed previously, the psychological contract was first defined as beliefs based on expectations (e.g., Levinson et al., 1962; Kotter, 1973), but later these beliefs changed to obligations and promises (e.g., Rousseau, 1989; Guest & Conway,

2002). As such, the three concepts are sometime used interchangeably and in some cases used in conjunction with others in the literatures (Dadi, 2012). This has led to a great deal of confusion and raised a major challenge for new researchers (Coyle-Shapiro & Parzefall, 2008). Rousseau (1995) refers to this issue as the “currency” issue of the psychological contract. That is, which of these three concepts can be considered as part of the psychological contract? Unfortunately, there is still a lack of consensus in the existing research.

Rousseau (1989; 1995; 2001) made a clear distinction between psychological contracts and expectations. She argued that all psychological contracts involve expectations that an employer should act in some ways, but not all expectations are contractual. That is, promises can be considered as a special type of expectations (Robinson & Rousseau, 1994). Although perceived promises may include expectations, not all expectations necessarily involve a promissory element (Grant, 2010). Expectations may come from past experience about the future whereas promises may arise as one observes another party’s behavior that leads the focal person to believe that promises has been made to him or her (Coyle-Shapiro & Parzefall, 2008). In this sense, expectations are a far broader concept than psychological contracts, includes not only beliefs based on promises but also other expectations arising out of an exchange agreement that was made or from descriptive beliefs (Dadi, 2012). Moreover, Rousseau (2001) also divided the psychological contract-related promise into two types: (1) promises conveyed in words (i.e., explicit promises) and (2) promises derived from the interpretation of actions or indirect statements (i.e., implicit promises). For example, “Based on my experience, I’m probably going to get a pay rise after New Year” (expectations based on past experiences). “I think that if I do well I can get promoted” (expectations based on descriptive beliefs). “I will get promoted soon because my boss told me last month” (explicit promises). “I believe I will get pay rise if my performance appraisal is Excellence level since I saw my colleague getting pay rise in similar situation” (implicit promises). In comparing these workplace examples, the impression is that

expectations, such as those based upon descriptive beliefs or past experiences, represent a general stable feature of the individual employee's conscious experience about what he or she will find in his or her jobs, whereas promises, either explicit or implicit, are grounded in a *contract* and reflect much more specific beliefs held by the employee about what it will happen, when it will happen and why it happens.

As for the differences between promises and obligations, existing literature is rather vague. Most studies have used the two concepts interchangeably, only a handful of researches have compared the two. For example, Robinson (1996) elaborated Rousseau's work by introducing the idea of the individual employee's perceived obligations and asserted that a perceived obligation can only be used with a perceived promise interchangeably if and only if it is not solely based on past experience in other employment relationships. Conway and Briner (2005) further defined perceived obligations as those expectations that result from perceived implicit and explicit reciprocal promises, whereas the broader concept of expectation contains not only perceived promises but also other general beliefs arising from what employees find in their job. In other words, only those perceived obligations that are exchange based and arise from implicit or explicit promises can be considered as part of the psychological contract. Other forms of obligations, such as those that are purely based on an individual employee's moral values but have not been promised by the employer are not viewed as being part of the psychological contract. Robinson's (1996) perspective is of great theoretical and practical significance (Rousseau & Tijoriwala, 1998) because it indicates that unmet obligations within the psychological contract are likely to result in more intense and more emotional responses than other unmet forms of expectation.

To conclude, there is still no clear picture in the literature about the extent to which the psychological contract is concerned with each of the three concepts. For example, although Rousseau's (1989) early work clearly indicated the prime role of promises as constituting the contract, her later theoretical work (e.g., Rousseau,

2010) and most of her empirical studies (e.g., Rousseau, 1998; Bal et al., 2010) has used the broader notion of obligations. Some researchers, such as Guest (1998), argued that one way to solve this problem is to include all of the three concepts in the psychological contract since they all contain beliefs, and those beliefs purely depend on the individual perceptive position and may fluctuate from person to person (Dadi, 2012). However, if the psychological contract is defined in such way, it would then become a rather loosely construct with weakened analytical power (Conway & Briner, 2010). Nevertheless, arguments discussed above clearly indicate that exchange and reciprocity are undoubtedly central to the psychological contract (Kutaula, 2014). But what remains ambiguous is whether these exchange-based beliefs exist at general level or whether these beliefs entail some specific inducements in order to exchange for specific contributions (Coyle-Shapiro & Parzefall, 2008). To this point, obligations and promises rather than expectations are obviously core of the psychosocial contract. As for the difference between obligations and promises, it may be hard to identify in practice since there are no clear criteria which can be adopted to measure those implicit or unstated promises (Grant, 2010). Therefore, the terms, perceived obligations and perceived promises, will be applied interchangeably in this thesis.

● ***Issue two: agents and mutuality***

Social exchange theory is widely regarded by academics as the theoretical basis of the psychological contract (Coyle-Shapiro & Parzefall, 2008; Dulac et al., 2006). The central principal of social exchange theory is that individuals enter into social relationships with others who can provide valued resources that cannot otherwise be obtained. In return, they tend to reciprocate on resources received by offering support and resources to others (Cropanzano & Mitchell, 2005). This underlying process of social exchange relationships was named by Gouldner (1960) as “the norm of reciprocity”, which is a central element in explaining the psychological contract. Many researchers indicated that this exchange-based reciprocity plays an important

role in explaining the relationship between the psychological contract evaluation and individual attitudes and behaviors (e.g., Bal et al., 2013; Uen et al., 2009). However, defining the psychological contract as an exchange-based relationship may bring what so-called agency problem, which is discussed in more details as follows:

As indicated previously, the most eye-catching characteristic of Rousseau's definition of the psychological contract is that it is unilateral. That is, despite recognizing that there are two parties of the contract, Rousseau (1989) clearly indicated that '*individuals have psychological contracts, organizations do not*' (p. 126). More specifically, the contract is an "*individual perception*". The source of information concerning the contract comes solely from the individual. The individual can have a unique experience regarding his or her exchange relationship with an employer (Rousseau & Tijoriwala, 1998). In other words, the individual does not react to reality, but to reality as he or she is perceived. The contract is also constituted by the "*perception of mutuality*". That is, both parties of the contract may not actually share a common understanding of all contract terms, instead they may only believe that they share the same interpretation of the contract (Bankins, 2012).

Although Rousseau's unilateral definition of the psychological contract has been accepted by many researchers, there is an ongoing debate about whether the employer or the organization can have psychological contracts. For example, some recent studies, such as those conducted by Guest (1998) and Coyle-Shapiro and Kessler (2000), have criticized Rousseau's unilateral view and have adhered to the bilateral view of the concept held by earlier researchers (e.g., Argyris, 1960; Levinson et al., 1962; Schein, 1988), that the psychological contract is rooted in social exchange theory and is a social exchange-based process which must involve two levels (i.e., individual and organizational) and incorporates the perceptions of both parties to investigate the notion of reciprocal promises and obligations fully. Furthermore, Boxall and Purcell (2003) also criticized Rousseau's (1989) re-conceptualization and indicated that if the psychological contract is entirely



subjective and exists only “*in the eye of the beholder*”, then it cannot be actually considered as a contract since there is no counterparty to exchange for.

In defending the unilateral view of the concept, Rousseau and followers (e.g., Rousseau & McLean Parks, 1993; Robinson, 1996) argued that the bilateral view suffers from the major problem of multiple agents. That is, how can the organization act as a second party to an exchange? Who or what should act as representatives of the employer or the organization? It may be a senior manager, a supervisor, or even a human resources department, etc. For example, Lee and Taylor (2014) indicated that managers may make commitment that is inconsistent with the organization’s true intent. Similarly, Rousseau stated that “*Is a manager who promises career development to a recruit speaking for himself or for the organization?*”(Rousseau, 1995, p.62).

These arguments give rise to the dilemma of the agency problem since the psychological contract is an exchange relationship by nature, but there is no clear counterparty to the exchange (Petersitzke, 2009). Consequently, who can represent the organization has yielded a number of academic researches. Some studies (e.g., Lewis & Taylor, 2001; Teklead & Taylor, 2003) argued that immediate managers play an important role in managing employees’ psychological contract since they have most contact with their direct reports. The others (e.g., Coyle-Shapiro & Kessler, 2002; Guest & Conway, 2002) examined the relationship between senior/middle level managers and employees since those decisions that may affect employment relationship are often made by high level managers in the organization. However, as indicated by Lee and Taylor (2014) and Grant (2010), despite the distinction between the role of immediate and senior managers in the psychological contract, what would be included in the psychological contract remains unclear and the agency problem still cannot be fully resolved. Indeed, an organization is a conglomerate of agents with different views regarding mutual obligations (Guest, 1998), the individual employee may still receive conflicting information about

organizational contract offers from different members of the organization, and he or she could have difficulty in distinguishing between an agent making commitments on behalf of the organization and the one making these commitments in their own name.

One possible solution to this dilemma, as Rousseau and McLean Parks (1993) suggested, is to treat the organization as a whole (i.e., a unified party), which does not have psychological contracts. That is, the term “*psychological*” in psychological contract refers only to an intra-individual concept (Petersitzke, 2009). However, some researchers, such as Conway and Briner (2005) and Taylor and Tekleab (2004), criticized this view and argued that a key problem of ignoring the employer’s perspective is that it may misrepresent the core of the psychological contract and fail to capture the mutual obligations between the two parties.

In sum, the debate on who can represent the employer continues, the need for further research into the issue of whether the organization can have psychological contracts is obviously required. Nevertheless, as Freese (2007) pointed out, it may be sufficient to fully understand an individual employee’s psychological contract by researching his or her perception only. She further emphasized that it is by no means to ignore the fact that it is valuable to study the employer’s point of view in order to see if there is a mutual understanding of the agreement by both parties. However, it is just difficult to attribute a psychological contract to an organization for the above mentioned reasons.

#### *2.2.1.3 Definition adopted in the thesis*

As proposed above, there is still a lack of consensus regarding the definition of the psychological contract in the literature, and subsequent studies are still ongoing. The meaning of the concept may be seen to many as “*all things to all people*” (Roehling, 1997), and thus it may depend on various factors such as culture, beliefs, nationality, obligations and promises (Dadi, 2012). Nevertheless, much recent research (e.g., Kutaula, 2014; Freese, 2007) tends to favour the unilateral definition

when measuring the psychological contract and assumes that the organization is an anthropomorphic identity for the individual while simultaneously treating the organization as a specific party that directly expresses its views or seeks agents to represent it. Therefore, for the purpose of the proposed empirical research, it will adopt Rousseau's unilateral definition of the concept, in which the psychological contracts is defined as an individual employee's mental models about the promissory-based reciprocal obligations between themselves and the organization. The reasons for adopting this definition are as follows:

*First*, Rousseau's unilateral definition of the concept has the great benefit of making measurement more straightforward. Under this view, an individual employee's subjective interpretation of the psychological contract, both his or her obligations or promises to the organization and his or her beliefs about the organization's obligations or promises, can be easily measured and analysed in practice. In contrast, the bilateral view of the psychological contract may make empirical analysis very difficult since the organizational side, as discussed previously, can include many agents (e.g., senior managers, supervisors, colleagues, etc.) who hardly have a uniform set of perceptions (Fresse & Schalk, 2007). Rather, it involves a multiple collective of different expectations held by a whole set of agents in the organization (Rousseau, 2001).

*Second*, Rousseau's unilateral definition of the psychological contract is a clear unit of analysis and focuses on the individual employee's sense of implicit and explicit promises or obligations, rather than general expectations or beliefs. Moreover, the word "*implicit*" means that the psychological contract could be interpreted differently, even by two employees hired at the same time and for the same position (Robinson, et al., 1994). On the contrary, the bilateral definition of the psychological contract encounters a potential problem that the employee may find it difficult to recognize the differences in the perceptions arising from the two parties' exchange of obligations (Grant, 2010).

### 2.2.2 Contents of psychological contracts

As mentioned above, the psychological contract does not revolve around specific employment details; rather, it is centered on the exchange of implicit and explicit promises and commitments between two parties (Guest & Conway, 2001). Within this context, Conway and Briner (2005) defined the contents of the psychological contract as *“the promises an employee believes they have made to their organization and what the employee believes the organization has promised in return.”* In other words, the core of this definition is “reciprocity” and it should address at least two questions: First, what are the two parties prepared to exchange? More specifically, what promises and commitments are the parties willing to offer each other? Second, how will this exchange happen? That is, does inter-correlation exist between what an employee is prepared to contribute and what the employer is willing to offer?

In existing literature, many studies, including those of Guzzo et al. (1994) and Robinson et al. (1994), address mainly the first question, with the intent of developing a list of general psychological contract items. However, the specific contents of the psychological contract are so complicated that it may literally contain thousands of items (although an individual may think of only a few consciously), thus the production of a complete list is unlikely (Aanerson & Schalk, 1998; Grant, 2010). As a result, many scholars tend to limit their research to the context of employee-perceived promises or obligations. Two commonly cited empirical studies were conducted by Rousseau (1990) and Herriot et al. (1997), which are briefly discussed as follows:

Rousseau (1990) conducted a survey from 129 MBA graduates in the US and generated content items by asking them about the kinds of promises and commitments they sought from new employees during selection, and the promises and commitments the organization made to the new employees in return. She was the first person who conducts this issue in the empirical research. The results suggested

that from an employee's perspective, the employer has seven obligations: 1) promotion; 2) high reward; 3) performance-based pay; 4) training; 5) long-term job security; 6) career development; 7) HR support. In return, employees believe they are expected to render: 1) working overtime; 2) loyalty; 3) voluntarily engages in the work beyond the call of duty; 4) notify your quit in advance; 5) accept internal work adjustment; 6) do not help rivals; 7) disclose no secret; 8) remaining with the company for at least two years.

Thus far, one of the most frequently cited studies on the contents of the psychological contract is Herriot et al. (1997), who used critical incident technique within a UK context. The authors interviewed 184 employees and 184 managers regarding instances in which either a manager or an employee fell short of or exceeded expectations. Approximately 1000 incidents, 12 employer obligations (training, fairness, care, negotiation, trust, kindness, understanding, safety, perseverance, pay, welfare and stable jobs) and 7 employee obligations (punctuality, working hard, honesty, loyalty, to protect the company's assets, to show organizational image and mutual assistance) were identified. Herriot et al. (1997) also analyzed the frequency of incidents between a manager and an employee, revealing that although employees and managers generally agree on obligations, employees tend to emphasize basic factors (e.g., fair pay, safety, understanding, kindness, congenial work environments and a degree of job security) more strongly than do managers. Managers attach greater importance to humanitarian aspects, recognition and benefits. Similarly, differences in perceptions of employee obligations exist, in which employees emphasize on protecting company's property and showing organizational image, whereas managers focus primarily on loyalty. Nevertheless, Herriot et al.'s (1997) analysis of the contents of the psychological contract has also been criticized. Cullinane and Dundon (2006) argue that the study did not distinguish between perceived expectations and perceived obligations or promises. This deficiency results in mistakenly including items that arise from general beliefs; such items are not necessarily part of the psychological contract.

Moreover, because the study determined the situations in which organizations fell short or exceeded expectations, the data collected may have reflected only violations or exceeded expectations (i.e., fulfillments) rather than the actual contents of the psychological contract.

As indicated before, even though the research on the contents of the psychological contract has attracted numerous researchers, a general weakness of most of those studies is that they fail to capture the core of psychological contract contents—reciprocity (Conway & Briner, 2010). That is, these studies often treat contributions and incentives as separate concepts, without considering how employees reciprocate. More specifically, researchers simply ask employees about the obligations to which employers commit, instead of specifying whether the incentives provided by employers are conditional upon mutuality. Let us suppose, for example, that two employees believe an organization to have promised a £1000 bonus; but each of them believes that the bonus is contingent upon different requirements: performance in one case and length of service in the other. These two employees would be expected to have completely different psychological contracts.

In China, research on the contents of the psychological contract is still in its exploratory stage, with only a limited number of researches has touched upon this area. Chen et al. (2003) is one of the first in China to investigate content items for Chinese employees. Based on Rousseau's (2000) psychological contract inventory (PCI) questionnaire, they surveyed 342 employees from five organizations across China. The results indicated that aside from common items, such as fair pay and work stability, employee expectations of their employers also included issues of recognition, respect, participation in decision making and labor insurance. In return, those of Chinese employees, unlike their Western counterparts, typically included harmonious relationships, sincere treatment and sharing of challenges or difficulties in their obligations to the employer. On the basis of this study, Li (2006) conducted by far the most comprehensive empirical study about Chinese employees' psychological contract in China. Considering the culture differences, he developed a

new measurement scales to generate content items of Chinese employees by incorporating various commonly cited questionnaires from Western literatures (e.g., Lee et al., 2000; Rousseau, 1990, 2000), together with an open-ended questionnaire with 67 MBA and EMBA graduates from Renmin University in China, focus groups with 23 employees from four different organizations, and expert interviews with 10 HR managers from different organizations. He then pre-tested the new measurement scales with 88 employees from 3 different organizations followed by a formal test on 1020 employees from 20 different organizations in various industries across 6 cities in China. He finally obtained a 39-item scale, with 21 of them for employer obligations as perceived by employees and 19 items for employee obligations.

In sum, although many studies have been devoted to the contents of the psychological contract, the issue remains widely debated. The majority of research does not fully consider the exchange of promises or obligations. Moreover, as Isaksson et al. (2003) assert, the nature of the psychological contract (i.e., dynamic, implied and subject to organizational changes) results in difficult measurement of contents. Nonetheless, empirical results provide valuable insights: (1) There is no real consensus about what the content items are. The measurement of contents is likely to change considerably across different studies (Conway & Briner, 2005). (2) Perceptions of the contents of the psychological contract likely differ between employees and employers. (3) Psychological contracts are likely to contain certain promises (e.g., providing harmonious working conditions) than others (e.g., fair pay). (4) As indicated by Petersitzke (2009), there is a shift in viewing the contents of the psychological contract, from the “traditional” contract, which is built on fixed rewards and expectations of advancement in return for hard work and loyalty, to the “new” contract, which is more short term and assumes that one party is less dependent on the other.

### **2.2.3 Structures of psychological contracts**

As previously indicated, given that the psychological contract can be extensive,

some researchers (e.g., Coyle-Shaprio & Kessler, 2000; Rousseau, 1995) have suggested classifying contract items into different dimensions. The widely known two-dimensional structure is a dominant approach in the literature. This two dimensional structure, which is either transactional or relational, was first introduced by MacNeil (1985) and further developed by Rousseau (1990, 1995). Such transactional–relational distinction of the psychological contract parallels Blau’s (1964) distinction between economic and social exchange and is also considered as central to both theory and practice (Thompson & Bunderson, 2003).

By definition, transactional contracts (e.g., pay for outstanding performance) are close-ended, based on self-interest (Cable, 2008) and driven by extrinsic motives (Koskina, 2013), involve limited emotional investment (Rousseau, 1995) and are linked to the exchange of monetary rewards (Rousseau, 2004). Transactional contracts take place over a finite period of time (Kutaula, 2014) and are mainly explicit and negotiable, as well as requiring formal agreement between employees and employers (Conway & Briner, 2005). In other words, the transactional aspect of the psychological contract includes a narrow set of defined obligations, which an individual employee promises to deliver in exchange for economic incentives (Gammie, 2006).

Conversely, relational contracts (e.g., loyalty and job security) are broader, include collective interests (Cable, 2008) and open-ended relationships (Conway & Briner, 2005), they are influenced by intrinsic factors (Koskina, 2013) and concern the degree of social exchange and interdependence between employees and employers (George, 2009), social-emotional and value-based exchanges (Aselage & Eisenberger, 2003) and long-term commitment (Isaksson et al., 2003). Compared with the terms of transactional contracts, those of relational contracts are less tangible, more dynamic and subject to the ongoing evolution of the parties involved in the exchange (Kutaula, 2014; Thompson & Bunderson, 2003).

The transactional-relational structure was supported by empirical studies at



some level in the western countries especially in the US. Many scholars discussed relevant issues about the psychological contract on the basis of transactional and relational contracts. For example, after analyzing 11 employer's responsibilities from 246 MBA graduates, Kickul and Lester (2001) suggested two factors: extrinsic contract and intrinsic contract. Extrinsic contract was defined as employers' promise to employees' work, including competitive salary, a safe working environment and flexible working hours. Intrinsic contract involved employers' promise to the nature of the work such as provide support from organization, engaging in all kinds of challenging work, self-control, giving chances of development, decision-making participation and so on.

Although the transactional-relational distinction has been widely used in the psychological contract research, researchers have intensively debated whether transactional and relational contracts are mutually exclusive or whether they can coexist. For example, Guzzo and Noonan (1994) argued that contracts have both transactional and relational elements to varying degrees. MacNeil (1985) and Rousseau (1995) suggested that the transactional–relational classification can be described as “*two opposite ends of a single continuum*.” That is, the higher the number of transactional elements in the psychological contract, the fewer the relational elements and vice versa. This is often referred to as the one-factor solution (Shore & Tetrick, 1994). Nevertheless, Coyle-Shapiro and Kessler (2000) and Robinson and Morrison (1995) contend that transactional and relational contracts are relatively separate and independent, rather than lying on a single continuum. A psychological contract of a given employee can be high or low on both a relational and a transactional aspect. This is usually referred to as a two-factor solution (Petersitzke, 2009).

Besides, although the two-dimensional structure of the psychological contract is considered as central to both theory and practice, there are many theories about the three-dimensional structure in the current literatures. Notably, Rousseau (2004) extended her initial work (i.e., the relational-transactional typology) to include the

balanced or “hybrid” contract in recent years. This contract combines the open-ended time frame and mutual concern of relational agreements with the performance demands as well as renegotiation of transactional contracts (Kutaula, 2014). More specifically, this contract has three dimensions (Bankins, 2012): (1) performance support to meet increasing and changeable requirements; (2) career development support within the organization; (3) support for developing externally marketable job skills. Similarly, Hui et al. (2004) collected data on Singapore, China and Latin America and confirmed the relational-balanced-transactional contract typology. While it should be noted that other studies which have sought to classify contract elements along relational-transactional lines have not always found similar dimensional structure. For example, Rousseau and Tijoriwala (1996) conducted an empirical study and proposed a three-dimensional structure of the psychological contract. They were transactional dimension, relative dimension and team member dimension. Transactional dimension emphasizes on economic benefits that the organization offers to employees, which is similar as the definition in the two-dimensional structure. Relative dimension focuses on a stable, bilateral and long-term working relationship which may promote employees’ career development. Team member dimension focuses on social support and human relations between the two parties. Li (2006) found a three-dimensional structure that constituted Chinese employees’ psychological contract, namely, normal responsibility, interpersonal responsibility and development responsibility. These three dimensions will be discussed in more details in the later.

Other notable works include two interesting discussions regarding the transactional–relational distinction. First, Bunderson (2001) and Thompson and Bunderson (2003) introduced a third component—ideological exchange—into the psychological contract. Ideological exchanges cover altruistic motives by employees and employers and are posited to exist through the administrative and professional dimensions of the psychological contract. The administrative dimension, the authors state, is based on transactional exchanges and is commonly founded on the

impersonal dispatching of duties and assumptions of self-interest, as well as economic rationality. By contrast, the professional dimension is grounded in relational exchanges and focuses on altruistic behavior, loyalty and expression of identity. Despite these insights, however, these studies do not provide empirical data to support the arguments.

The second discussion arises due to the crossover of items (Taylor & Tekleab, 2004). For example, Arnold (1996) claims that training, as a third component, can be a significant aspect of the psychological contract because it can either be monetary or nonmonetary and either short term or long term. On the basis of Arnold's assertion, Coyle-Shapiro and Kessler (2000) conducted empirical research on a UK local authority. The analysis of questionnaire responses supports Arnold's argument and indicates that training obligations, such as support offered by an employer to an employee for the acquisition of new skills, cannot be classified as either transactional or relational; rather, they are distinct components of the psychological contract.

Many other researchers also conducted analyses in this field, but a lack of consensus remains. For example, aiming to identify the differences between Eastern and Western contracts, Lee et al. (2000) carried out cross-cultural research on work group members in the US and Hong Kong. They introduced the concept of the "team player dimension," defining it as a specific ideological psychological contract formed in the context of the Chinese culture. This contract reflects four major orientations in Chinese society: filial, relationship, authoritarian and other people's opinions. Based on the work of other authors, De Vos et al. (2003) identified five dimensions of the contract for employer obligations: (1) career development; (2) job content; (3) financial rewards; (4) work-life balance; (5) social atmosphere. They also identified other five dimensions for employee obligations: (1) employability; (2) flexibility; (3) ethical behavior; (4) loyalty; (5) in- and extra-role behavior. Bal et al. (2010) found that employer obligations can be categorized as economic, socio-emotional and developmental, whereas employee obligations were categorized based on De Vos et al.'s (2003) study.

In sum, a number of different views concerning the structures of psychological contracts have been discussed in this section. Although little consensus exists regarding contract classifications, the differences between transactional and relational contracts have been extensively discussed in existing research. Nonetheless, no definitive conclusions have been drawn regarding the transactional–relational distinction. Specific issues that require addressing include whether these two contracts lie on opposite ends of a single continuum—a standpoint commonly referred to as “the one factor solution” (Shore & Tetrick, 1994)—and whether they are positioned high or low in both dimensions—a perspective called “the two factor solution” (Shore et al., 2006). Certain items, such as training incentives, also arguably belong in either type of contract, depending on context. Conway and Briner (2005) used pay as an example to illustrate this argument. Pay is often regarded as a transactional component, but it can be included in a relational contract, for example if the employer consistently increases pay based on inflation or competition, the employee might regard it as a special consideration offered by the employer. Moreover, the transactional–relational distinction may even be more ambiguous when the exchange relationship is taken into account. Continuing with the previous example, suppose that the employer consistently increases pay as a deterrent to competition for employee services. The employee, in return, would probably deliver both transactional promises (e.g., outstanding performance) and relational promises (e.g., concern for corporate image). In addition, Hui et al. (2004) stated that culture should be included as a factor in both transactional and relational contracts because people with different cultural backgrounds hold different perceptions of the psychological contract under the same conditions. For example, as Hui and Triandis (1986) described, Chinese relationships are characterized by collectivity, with substantial concern over the effects of one’s actions or decisions in relation to others, willingness to share material benefits with others, belief in the correspondence of individual achievements with those of others and concern over honor. This special relationship is regarded as “individual-in-relations.” All in all, research on the structures of psychological contracts in the Chinese context is still in its infancy.

However there are indications that the structure of the psychological contract in general is unstable given that societal development has caused a relative change in the traditional contract and many related factors, such as social and economic environments and specific cultures, also significantly influence contract structure (Hong et al., 2009).

#### **2.2.4 Individual demographic characteristics of psychological contracts**

By definition, “drawing up” a psychological contract is a dynamic process because it involves a series of ongoing and unfolding events throughout an individual employee’s employment history; these events are a response to changing environments and conditions (Cable, 2008; Grant, 2010; Schalk & Roe, 2007). Among the factors that may influence the concrete contents and structure of the psychological contract, demographic characteristics, such as gender, age, educational attainment, tenure, and type of employment contract, were identified as significant items that shape an individual employee’s psychological contract (Zhang, 2011). However, existing researches have not sufficiently considered these factors. As a result, there are only limited studies that have touched upon this field. They are briefly described as follows:

(1) *Gender*. It is widely believed that gender is an important factor for the examination of employment relationships since males and females have different expectations from the employer. Females are generally seen as gentle, friendly, passive, emotionally expressive, showing concern for others (Bellou, 2009), whereas males are regarded as independent, masterful, aggressive and ambitious. Gender may lead to significant differences between the work attitudes of, and organizational support for, males and females (Herriot et al., 1997; Scandura & Lankau, 1997). For example, Tallman and Bruning (2008) found that females have stronger obligation attitudes than males. This may be due to the past unfair treatment received from employer (Agarwal, 2014). In terms of the psychological contract, some empirical studies reported positive correlation between gender and employee-employer

fulfillment of obligation (Coyle-Shapiro & Kessler, 2002; Dulac et al., 2008). De Vos et al. (2005) found positive correlation between gender and economic rewards and social atmosphere. This may be attributed to the fact that females are generally more sensitive to promised and delivered incentives than are males. They also highly value the perceived presence of flexible hours. However, there is no unified statement in existing literatures. There are few studies also reported no significant relationship between gender and the psychological contract (e.g., Coyle-Shapiro & Conway, 2005; Suazo, 2009; Sutton & Griffin, 2004).

(2) *Age*. As people grow, they are likely to experience significant change in their interaction patterns, self-concepts, emotional intensities, attitudes and behaviors, and life goals (Chapman & Hayslip, 2006; Steverink & Lindenberg, 2006). Thus, older and younger employees should have different expectations and react differently to their psychological contract. Moreover, they should also prefer different degree of balance in their psychological contract (Vantilborgh et al., 2013). Nevertheless, despite acknowledged importance, existing researches in the relationship between age and the psychological contract are still rather unclear, with only a few examples in existing literature. Lewis et al. (1999) investigated a group of 18 to 30 year-old employees and found that their psychological contracts changed over time. Smithson and Lewis (2000) indicated that younger employees, compared with older, tend to have higher expectations in equality, recognition of performance, entitlement to support. Liao-Troth (2005) found that younger employees are more likely to be motivated by future career prospects and understanding from the organization. Baruch (2004) pointed out that the new generation (i.e., employees with age younger than 35) places high emphasis on employability, and has the ability to cope with ongoing job insecurity and changes. Similarly, in a recent study conducted by Lub et al. (2012), they also found that younger generation prefers challenge, development opportunities, variation, and responsibility whereas older generation prefers high value on work-life balance, autonomy, and job security.

(3) *Educational attainment*. Many scholars believe that educational attainment

is likely to be an important factor in influencing an individual values, needs, preferences, and thus perceptions and actions (Bellou, 2009). However, existing researches in the relationship between educational attainment and the psychological contract are rather inconsistent. For example, Guest (2004) indicated that educational attainment influences the formation of employees' psychological contract, and the relationship between the level of educational attainment and job satisfaction is negative since individuals with high educational attainment tend to have greater expectations initially, which may of course then lead to greater dissatisfaction later (Coyle-Shapiro & Kessler, 2000). Other researchers (e.g., Spector, 1997) argued that individuals with high educational attainment are likely to experience job satisfaction because they usually hold jobs of better quality, followed by relatively better pay, more interesting tasks, and empowerment. Moreover, Chen (2007) conducted an empirical study in China and found that educational attainment is positively related to relational contracts and negatively related to transactional contracts. He further asserted that highly educated employees in China care more about collective interests and are more concerned over the degree of social-emotional exchanges. This result may be surprising given that it is inconsistent with the findings of Western studies. As asserted by Trevor (2001), education can be a reasonable measurement of marketability in the labor market and a highly educated employee is afforded more options than are his/her peers. Regardless of labor market conditions, therefore, highly educated employees exhibit a higher probability of quitting and care more about the transactional nature of employment relationships than do less educated employees.

(4) *Type of employment contract.* Rousseau (1995) indicated that legal contract determines the boundaries of exchange relationship and therefore influence how employees perceive employer obligations (Van Dyne & Ang, 1998). Many researches demonstrated that temporary and permanent employees perceive their psychological contract differently (Chambel & Castanheira, 2007). For example, by investigating 204 individuals across different generations, De Meuse et al. (2001)

asserted that a significant difference in the relational component of the psychological contract exists between temporary and permanent employees, with the contract for the former focusing on monetary aspects. Van Dyne and Ang (1998) empirically studied contingent workers in Singapore. The results reveal that the type of employment contract plays a crucial role in the design of employees' psychological contracts, with contingent workers tending toward perceptions of fewer organizational obligations in the contracts relative to permanent workers. However, not all studies offer similar conclusions. Some studies did not find any significant difference between the two groups (e.g., De Witte & Naswall, 2003). Research in this area is still inconclusive. In their study of 797 employees from the customer service sector, for example, McDonald and Makin (2000) indicated that no significant differences exist between temporary and permanent staff in either the overall levels or the structure of the psychological contract. Similarly, Hughes and Palmer (2007) also found limited support for the hypotheses that psychological contract perceptions varied across temporary and permanent employees.

(5) *Tenure*. Rousseau (1990) stated that the role of time (i.e., tenure) is an important factor in the psychological contract research. However, efforts to investigate the influence of tenure on employees' psychological contract are rather insufficient (Agarwal & Bhargava, 2013). Within these limited studies, results are still inconclusive. Some studies (e.g., Blomme et al., 2010) indicated that employees with long tenure in an organization are less likely to perceive a violation of their psychological contracts. This perspective may be attributed to the fact that time investment in organizations builds trust in employers (Zhang, 2011). An individual employee with long tenure may feel more personally attached to the organization than does a newcomer and may be more likely to show strong commitment to the organization (Cable, 2008). Rousseau (1990) also indicated that relational psychological contracts contains trust and good faith, exchange of intangible constructs, and sustained reciprocation that have longer time frames. This is supported by Lee and Faller (2005) who found that the transactional form of



organizational obligations dominated new employees' psychological contracts for six months from the time of entry. Beyond this period, psychological contracts changed from being transactional to relational. Contrary to this, some studies did not find significant relationship between tenure and psychological contract. In a recent study, Conway and Coyle-Shapiro (2012) found that there is little correlation between tenure and perceived psychological contract fulfillment.

To conclude, although studies on the psychological contract are multi-faceted and the role of individual characteristics in employment relationships has long been and widely acknowledged as important (Bellou, 2009), academic research that focuses on identifying the relationship between individual demographic variables and their psychological contract has not been sufficiently considered (Atkinson & Cuthbert, 2006; Zhang, 2011). Even in such studies, the results are still inconsistent. These differences may reflect the variances in cultural backgrounds to a certain extent (Li, 2006). Nevertheless, Wocke and Haymann (2012) claim that some of these demographic variables potentially influence the relationship between the psychological contract and the nomological network and that studying these variables may have important implications for managing modern employment relations.

## **2.3. Research Design and Hypotheses**

### **2.3.1 Hypotheses for the proposed psychological contract concept model**

The cultural value of orientation of employees shall not be neglected when analyzing an individual psychological contract in the Chinese context (Hui et al., 2004; Wang et al., 2009). The reason is because people with different culture values usually hold different viewpoints towards the same thing. Therefore, it is better to propose the concept model for this study based on empirical studies conducted in China since they are more likely to take into consideration of culture factors. With this in mind, Li's (2006) three-dimensional structure model is adopted in this study,

which comprises interpersonal responsibility, development responsibility and normal responsibility. He defined these three dimensions as: (1) Interpersonal responsibility is applied as interpersonal care provided by the organization to employees; employees, in return, willingly create a good interpersonal working environment. (2) Development responsibility pertains to the provision of personal development opportunities to employees; in exchange, employees devote their efforts to the development of the organization. (3) Normal responsibility refers to the satisfaction of economic interests and provision of material rewards to employees, with employees reciprocating by complying with the basic requirements of their jobs. Li's (2006) model is followed in this study for the following reasons:

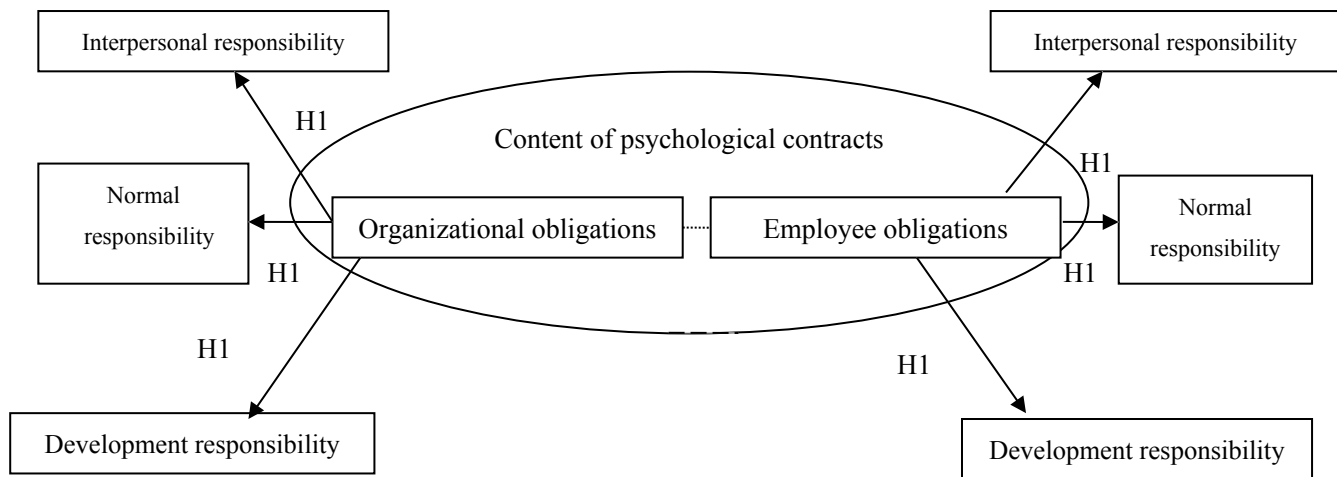
First, although the research on the psychological contract based on Chinese background is still in the exploring stage, many empirical studies has confirmed that a three-dimensional structure, rather than traditional two-dimensional structure, more accurately reveals the nature of Chinese employees' psychological contract. For example, Wei (2004) investigated 512 MBA students and managers in varies types of organizations and found that their psychological contract contains three dimensions: tool type, relation type and management type. Zhu and Wang (2005) investigated 562 knowledge employees and reported that the psychological contract of knowledge employees in China reveals three dimensions in each side of organizational and employee obligations, with organizational obligations consist of material encouragement, development opportunity and environment support, and employee obligations include normal obeying, organizational identification and creation guidance. Through 160 questionnaires of R&D personnel in 8 different organizations in China, Guan and Zhang (2006) found that Chinese R&D personnel psychological contract contains three dimensions of performance reward, career development and wok-living balance.

Second, among those empirical studies in China, Li's (2006) research is widely regarded as one of the most comprehensive studies on general Chinese employees' psychological contract structure. He conducted his empirical studies by investigating

769 general employees in various types of organizations in 8 different cities in China. His three-dimensional structure prompted many follow-up studies. Yao (2010) empirically investigated 649 general employees in Beijing and arrived at similar results. Wang (2007), Zhang (2010) and Zhang (2011) also conducted empirical research on employees in state-owned organizations, university teachers and civil servants, respectively. Their findings all support Li's three-dimensional structure.

Finally, although Li's three-dimensional structure is rooted in traditional two-dimensional structure, it is in conformity with the actual conditions in China and workable through the test of practice by dividing a relational contract on Rousseau's model into two dimensions of interpersonal and development, in which development dimension points to collectivism value and interpersonal dimension focuses on interpersonal harmony. As indicated by Zhang (2011), Chinese society puts a strong emphasizes on interpersonal support and social connection, especially in state-owned enterprises, interpersonal harmony and collectivism value are even more important and sometimes are regarded as a "political task". She further asserted that modern employment relationship in mainland China is still deeply influenced by Chinese traditions, it includes not only work-related relationship, but more importantly non-work related relationship. Therefore, she suggested that it is better to investigate Chinese employees' psychological contract under the particular social cultural background in China.

Given that this study is conducted in the call center of a stated-owned commercial bank in China, for the reasons stated above, the hypotheses formulated in the current work are described as follows:



**Figure 2.1: Proposed psychological contract concept model**

The model in Figure 2.1 indicates that the psychological contract of Chinese banking call center employees includes organizational and employee obligations, therefore reflecting a three-dimensional structure. Based on that, this study puts forward the following hypothesis:

H1: The psychological contract of Chinese banking call center employees is composed of organization and employee obligations, in which both revolve around three dimensions: interpersonal responsibility, development responsibility and normal responsibility.

### **2.3.2 Hypotheses for the demographic characteristics of psychological contracts**

The essence of psychological contract is based on the idiosyncratic belief (Rousseau, 1989). Therefore, individual level antecedents become critical since they influence the formation of psychological contracts (Agarwal, 2014). However, as described in Section 2.2.4, researches in the relationship between individual demographic variables and their psychological contract are inconsistent. Thus, this study aims to briefly examine these relationships within the Chinese context, in

addition to the core object of the research (examining the structure of the psychological contract). Given that current study is the first of three inter-linked studies, it will not dig deeper and mainly focuses on whether such relationships are significant. The following hypotheses are then proposed:

H2: Different psychological contract patterns exist among employees, with gender significantly different in each of dimensions of the psychological contract.

H3: Different psychological contract patterns exist among employees, with age significantly different in each of dimensions of the psychological contract.

H4: Different psychological contract patterns exist among employees, with educational attainment significantly different in each of dimensions of the psychological contract.

H5: Different psychological contract patterns exist among employees, with type of employment contract significantly different in each of dimensions of the psychological contract.

H6: Different psychological contract patterns exist among employees, with tenure significantly different in each of dimensions of the psychological contract.

## **2.4. Research Method**

### **2.4.1 Research setting, participants and procedures**

The research was conducted at an in-house call centre of one of the “Big Four” state-owned commercial banks in China. The call center is one of the largest and most well-established service providers in the country and has three sub-centers. The target sub-center is located in the southwest region. It serves clients in 9 provinces, currently employing more than 600 employees holding either temporary (nearly 90%) or permanent contracts.

The target call centre was established 6 years before the study was carried out. It started with 32 employees and had 456 at the time of the study. Its rapid growth can be attributed to the large increase in banking clients thus increasing the derived demand for call center services, and hence employees, in the last three years. Similar to the organizational structure of other banking call centers in China, that of the target sub-center is divided into front, middle and back offices, in which the front office provides inbound service support to clients from its cover region, 7 days a week, 24 hours a day. The middle office is in charge of various staff business training, as well as quality control of inquiry calls. The back office includes the HR department, as well as the finance and administrative offices. Among the temporary contract employees, more than 90% are customer service representatives (CSRs) and the rest are distributed in the middle office. The roughly 60 front-line managers and supervisors who work in various departments of the call center are generally permanent employees; some were recruited through social connections and others were directly recruited from universities.

The survey was conducted in October 2011. For questionnaire distribution, we approached 420 employees, which included almost all the employees onsite that day, covering approximately 92% of the total workforce. During the data collection process, the author clearly explained the objectives and data collection procedures to the participants. To ensure anonymity, they were asked to return the completed questionnaires directly to the author in a sealed envelope. Of the participants, 412 completed the questionnaires, corresponding to a response rate of 98.1%.

#### **2.4.2 Measures**

The contents and structures of the psychological contracts of Chinese employees are likely to differ from those of the contracts of Western employees given differences in cultural and ideological values (Li & Dejun, 2002). In this light, the constructs for Model 1 were developed through well-established measurement scales adopted from existing studies in China. The constructs were measured by a

35-item scale based with some modifications on a 39-item scale developed by Li (2006). As stated previously, Li's research is regarded as one of the most comprehensive studies on the psychological contract in China (Chen, 2007) and the scale he developed has been used by many other Chinese scholars (e.g., Yao, 2010; Zhang, 2011).

The modifications were made on the basis of interviews held with seven pairs of human resource managers and employees from different banking call centers in China. Four of the items in Li's scale were regarded by the interviewees as irrelevant to the context of banking call centers or the actual situation of the target call center and were therefore discarded. These four irrelevant items and the reason for their being discarded are briefly described as follows:

Item 1: "I keep business secrets for the organization." This item was discarded because most banking call center employees in China are temporary employees and they are seldom required to sign confidentiality agreements with the organization.

Item 2: "I take the initiative to study new technology for the future development of the organization." Li's empirical study was mainly based on manufacturing and IT industry, whereas the banking call center is a service industry.

Item 3: "I would like to take the lead in the team." Most of the participants in the current study are CSRs and the typical hierarchical structure of banking call centers in China, especially for the Big Four state-owned banks, is unlikely to give those employees opportunities to take the lead in the team.

Items 4: "I give reasonable suggestions to the organization." The bureaucratic culture of Chinese state-owned enterprise makes it very unlikely that banking call center employees have access to communicate their suggestions with the organization.

Thus, a 35-item scale was finally obtained, in which 21 items relating to

organizational obligation and 14 items for employee obligation remained. Responses were rated on a 5-point Likert scale (1=not at all, 5=to a great extent). A sample item is “my organization treats me with respect.” To demonstrate the relationship between the contents of the psychological contract and individual demographic characteristics, this study controlled for the effects of gender, age, educational attainment, type of employment contract, and tenure.

Given that all the scale items are written in Chinese, the participants could understand them without any problems. For reference, an English version of the questionnaire was drafted, for which two bilingual speakers of Mandarin and English translated the original version into English. The English version can be found in Appendix 1.

### **2.4.3 Analytical strategy**

SPSS version 17 and Amos version 7 were used for the analysis and presentation of results. Descriptive statistics were employed in the preliminary analyses to provide information on the demographic variables. Exploratory factor analysis (EFA) followed by confirmatory factor analysis (CFA) were conducted to examine the contents and structure of the psychological contract. Given the assessment of perceptions at the employee level, a strictly individual-level analysis may be subject to a risk of common method variance and thus potentially result in artificially inflated findings (Kehoe & Wright, 2013), a split-sample analytical approach was used to mitigate this concern in accordance with the rationale proposed by Fabrigar et al. (1999). That is, the sample was randomly divided into two subsamples Sample A and Sample B. Each group has a sample size of 192. Sample A (N=192) was first used to conduct the EFA, while Sample B (N=192) was used for the CFA. The combined results of EFA and CFA will be used to test the H1.



## 2.5. Analyses and Results

### 2.5.1 Preliminary analyses

Before proceeding with the analyses, missing data and outliers were detected. Of the participants, 17 filled in fewer than 10 of the 35 questions for the measure of the psychological contract, 4 completed only the personal information section of the questionnaire and 7 chose the same answer for the entire measure of the psychological contract. In dealing with missing data, many researchers use variants of imputation procedures, such as replacing each missing score with the mean of the remaining item scores (Cable, 2008), or with a value obtained by adding a randomly chosen regression residual to the expected value of the missing score (Freese, 2007). However, these imputation methods suffer from certain drawbacks, such as adding no new information and being biased parameter estimates (Howell, 2007). Thus, a lack of consensus remains regarding the best solution to missing data (Howell, 2007). Given the adequate sample size and the minimal number of questionnaires with missing data and outliers in the present work, a list-wise deletion approach was used, in which missing data and outliers were excluded and the remaining items were analyzed (Howell, 2007). This method is considered the simplest way of resolving the missing data and outlier problem (Brown, 1983); all the analyses under this approach are calculated with the same set of cases. A total of 28 respondents were excluded, resulting in a sample size of 384 for analysis. The demographic data on the sample are summarized in Table 2.1.

**Table 2.1: Demographic analysis of sample (N=384)**

Variables	Descriptive	Respondents	Percent (%)
Gender	Unfilled	2	1
	Male	109	28
	Female	273	71
Age	Unfilled	5	1
	Under 25	317	83
	26-29	49	13
	Over 30	13	3

Marital status	Unfilled	4	1
	Married	35	9
	Single	345	90
Education	Unfilled	4	1
	Diploma	188	49
	Bachelor	179	47
	Master or above	13	3.4
Type of Employment contract	Unfilled	5	1
	Temporary	336	88
	Permanent	43	11
Tenure	Unfilled	4	1
	Less than 1	211	55
	1-2	143	37
	3-5	10	3
	Over 5	16	4

Demographically, 71% of the sample are female; 83% were under 25 years old; 90% were single; 49% hold a university diploma and 50.3% have at least a bachelor's degree from a university; 88% held a temporary employment contract; 55% had been working for the organization for less than a year, while 37% had a tenure of 1 to 2 years. As presented in Table 2.1, a few respondents (a maximum of 5) were reluctant to disclose personal information but completed the measure for the psychological contract. Therefore, the data from these participants were also included in the analysis.

## 2.5.2 Organizational obligations as perceived by employees

### 2.5.2.1 Validation of reliability

Item analysis was carried out on separate scales to assess the fit of the items in the assigned scale, as well as the reliability of the scales. According to Bagozzi (1994), agreement between independent attempts to measure the same theoretical concept points to scale reliability. In order to assess the internal consistency of the scales, this study estimated the Cronbach's alpha. As suggested by Nunnally (1967), this value should be at least 0.7. The results are shown in Table 2.2.

**Table 2.2: Reliability analysis of organizational obligations (N=384)**

Item No.	Scale Mean if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
A1	69.85	.599	.926	.929
A2	69.82	.597	.926	
A3	70.30	.696	.924	
A4	69.64	.584	.926	
A5	69.66	.627	.925	
A6	69.81	.609	.925	
A7	69.99	.652	.925	
A8	69.97	.721	.923	
A9	69.71	.599	.926	
A10	70.07	.402	.929	
A11	69.57	.478	.928	
A12	70.53	.739	.923	
A13	70.00	.634	.925	
A14	70.39	.628	.925	
A15	70.19	.527	.927	
A16	70.22	.725	.923	
A17	69.71	.545	.927	
A18	69.64	.547	.926	
A19	69.73	.500	.927	
A20	70.32	.664	.924	
A21	3.72	.893	.941	

Table 2.2 shows that the scale is internally reliable, with a Cronbach's alpha of 0.929. Excluding any items from the measures would not have substantially improved reliability.

#### 2.5.2.2 *Exploratory factor analysis*

The EFA was employed to initially identify the factor structure of organizational obligations as perceived by employees since it has received little study previously (Bandalos & Finney, 2010). In EFA, items are unconstrained to load on specific factors, so the factor structure for a set of items may be identified (Yount et al., 2015). As indicated before, given adequate sample size the importance of cross-validation of findings, Sample A (N=192) was first used for EFA.

To determine the appropriateness of conducting EFA analysis of organizational

obligations in the psychological contract, this study used two measurements. The first is the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy, which tests whether the partial correlations among variables are low. The second is Bartlett’s test of sphericity, which verifies the null hypothesis that the correlation matrix is an identity matrix. Both measures were used and are interpreted below.

**Table 2.3: Results for the KMO measures and Bartlett’s test for organizational obligations**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.926
Bartlett's Test of Sphericity	Approx. Chi-Square	2066.134
	df	210
	Sig.	.000

*Note: Results were based on Sample A (N=192)*

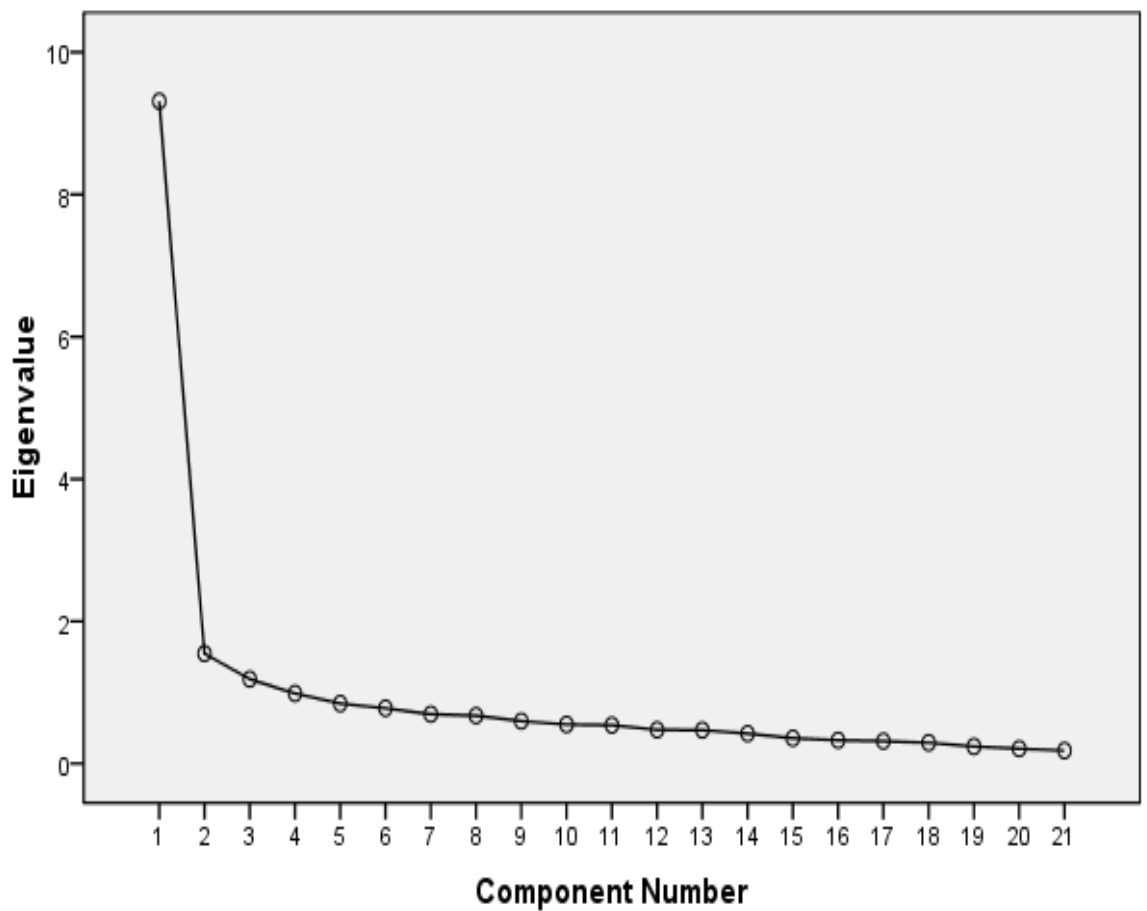
According to Hair et al. (1995), the closer the KMO measure of sampling adequacy (MSA) is to 1, the more appropriate is the factor analysis. In Table 2.3, the KMO measure of the original 21 items under organizational obligations is 0.926. This number shows that the patterns of correlation are relatively compact, and so factor analysis should produce distinct and reliable factors. In addition, the chi-square value of Bartlett’s test indicated 2066.134, and the observed significance level of is .000, a value sufficiently small to reject the null hypothesis and confirm a strong relationship among the variables.

The principal component analysis and Varimax rotation were then used to examine the contents of the psychological contract. In accordance with the recommendation of Kline (2000), this study chose these methods because they serve as the best approaches to drawing out important components. Such components are identified through expansion of large loadings and narrowing of small loadings while maximizing the variance in any given sample. The initial results of the factor analysis of organizational obligations, as perceived by employees, are shown in Figure 2.2 and Tables 2.4 and 2.6.

**Table 2.4: The total variance explained by organizational obligations**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.310	44.335	44.335	9.310	44.335	44.335	5.281	25.145	25.145
2	1.547	7.365	51.700	1.547	7.365	51.700	4.122	19.629	44.774
3	1.188	5.655	57.355	1.188	5.655	57.355	2.642	12.581	57.355

*Note: Results were based on Sample A (N=192)*

**Scree Plot****Figure 2.2: Factor analysis scree plot: organizational obligations****Table 2.5: Factor loading of items for assessing organizational obligations (initial analysis)**

Item No.	Item Description	Rotated Factor Matrix Component		
		Factor 1	Factor 2	Factor 3
A1	Treat me with respect	.678		
A2	Create a good cooperation environment in which people work together	.650		
A3	Care for my personal growth and personal life	.613		
A4	Trust and help each other between colleagues	.656		
A5	Provide me a friendly working environment	.775		
A6	Maintain harmonious relationship between my supervisor and me	.679		
A7	Provide positive feedback on my contribution and achievements	.606		
A8	Treat me honestly	.698		
A9	Provide a good guidance on my job	.665		
A10	Provide me a challenging job	.	.674	
A11	Provide me training and studying opportunities		.676	
<b>A12</b>	<b><i>Consider employees' opinions before making important decisions</i></b>	<b>.482</b>	<b>.562</b>	
A13	Provide me career advancement within the organization		.673	
A14	Provide me enough working autonomy		.682	
A15	Give me a chance to use what I have learned		.624	
A16	Provide me promotion opportunities		.695	
A17	Provide me job security			.657
<b>A18</b>	<b><i>Provide me with the resources to carry out the job</i></b>	<b>.521</b>		<b>.450</b>
A19	Provide rewards according to my performance			.551
A20	Provide me competitive and fairly wages			.607
A21	Provide benefits I can count on (eg., various kinds of working insurance, vacation)			.754

*Note: Results were based on Sample A (N=192)*

To select the number of factors, we adopted a Kaiser's (1960) criterion in which eigenvalues were greater than 1 and Cattell's (1966) scree plot. As indicated by

Figure 2.2 and Table 2.4, the variables used to measure organizational obligations exhibit a three-factor structure and that these three factors account for about 57% of variance. Factor 1, 2 and 3 have initial eigenvalues of 9.310, 1.547 and 1.188, respectively.

In the initial analysis, a factor loading criterion of 0.4 is considered equivalent to a significant loading (Hair et al., 1995). Although no consensus has been achieved with regard to detecting the cross-loading problem in factor analysis, we adopted 0.13 (i.e., the gap between the high and low loadings on the same factor is less than 0.13) as the standard, as suggested by Kickul and Lester (2000).

Table 2.5 shows that none of the items exhibits a factor loading below 0.4. Most of the loadings on the aforementioned factor 1, 2 and 3 are high, except for two cases of cross-loading: (1) item A12, “considers employees’ opinions before making important decisions” (loadings = 0.562, 0.482) and (2) item A18, “provides me with the resources to carry out the job” (loadings = 0.521, 0.450). Cross-loading may indicate a discriminant validity problem (Al Qurashi, 2009). These items were therefore excluded from the measure in all subsequent processing and the factor analysis was rerun with the remaining 19 items, using the same criteria as in the initial analysis. The final rotated solution is shown in Table 2.6.

**Table 2.6: Factor loading of items for assessing organizational obligations (final analysis)**

Item No.	Item Description	Rotated Factor Matrix Component		
		Factor 1	Factor 2	Factor 3
A1	Treat me with respect	.695		
A2	Create a good cooperation environment in which people work together	.665		
A3	Care for my personal growth and personal life	.614		
A4	Trust and help each other between colleagues	.665		
A5	Provide me a friendly working environment	.764		
A6	Maintain harmonious relationship between my supervisor and me	.688		

A7	Provide positive feedback on my contribution and achievements	.613		
A8	Treat me honestly	.701		
A9	Provide a good guidance on my job	.650		
A10	Provide me a challenging job		.692	
A11	Provide me training and studying opportunities		.691	
A13	Provide me career advancement within the organization		.654	
A14	Provide me enough working autonomy		.654	
A15	Give me a chance to use what I have learned		.628	
A16	Provide me promotion opportunities		.683	
A17	Provide me job security			.661
A19	Provide rewards according to my performance			.560
A20	Provide me competitive and fairly wages			.613
A21	Provide benefits I can count on (eg., various kinds of working insurance, vacation)			.758
Eigenvalues		4.836	3.716	2.548
% of Variance		25.45%	19.56%	13.41%
Cumulative %		25.45%	45.01%	58.42%

*Note: Results were based on Sample A (N=192)*

As shown in Table 2.6, no theoretically meaningless loadings remain after items A12 and A18 were excluded. The results of factor analysis reveal a three-factor structure in the data set, with the three factors derived from the EFA accounting for 58.42% of total variance. The first factor comprises 9 items (A1–A9) and accounts for 25.45% of item variance. This factor focuses primarily on the necessary interpersonal care that an organization should offer employees. The second factor comprises 6 items (A10, A11, A13–A16) and accounts for 19.56% of item variance. This factor reflects the necessary support that an organization should provide for personal employee development. The third factor comprises 4 items (A17, A19–



A21) and accounts for 13.41% of item variance. This factor is directly related to the necessary material and monetary guarantees that an organization should offer employees. These factors are therefore classified as interpersonal responsibility, development responsibility and normal responsibility, respectively. These factors and their descriptions are summarized in Table 2.7.

**Table 2.7: Summary of factor analysis results for organizational obligations**

No.	Factor Name	Item loaded	Description
1	Interpersonal	A1-A9	Setting up good interpersonal communication network and providing interpersonal care for employees
2	Development	A10, A11, A13, A14, A15, A16	Offering personal development space and providing opportunities for employees to realize their potential abilities
3	Normal	A17,A19,A20,A21	Providing material conditions and monetary rewards for employees

#### 2.5.2.3 Confirmatory factor analysis

To confirm and examine the factor structures of the three-dimensions model of organizational obligations and to test the degree of support for the observation data derived by the model from EFA, this study conducted CFA with AMOS 7.0. As indicated previously, sample B (N=192) was used at this stage for the analysis to enable the test of the comparison of the goodness-of-fit of the one-factor, two-factor, three-factor and four-factor models. The results are shown in Table 2.8.

**Table 2.8: Fitting indices of confirmatory factor analysis of organizational obligations**

Model	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	NFI	CFI	IFI
One-factor	1310.91	456	2.87	0.060	0.804	0.766	0.823	0.834
Two- factor	1317.44	456	2.776	0.050	0.847	0.808	0.891	0.866
Three- factor	1130.29	450	2.512	0.045	0.871	0.836	0.893	0.894
Four- factor	1224.14	441	2.776	0.048	0.866	0.822	0.877	0.878

The fitting indices of CFA for organizational obligations are presented in Table 2.8. The indices commonly used to assess overall model fitness are  $\chi^2/df$ , the goodness of fit index (GFI), comparative fit index (CFI), index of fit (IFI) and root

mean square error of approximation (RMSEA). A lack of agreement exists regarding the best goodness-of-fit index because many factors can influence fit indices such as data quality and sample size (e.g.,  $\chi^2$ ). The best strategy, therefore, is to adopt several different indices (Gerbing & Anderson, 1993). Generally speaking, for  $\chi^2/df$  (the smaller the better), a value of less than 3 indicates a good model fit, a value between 3 to 5 indicates an acceptable fit (Wang, 2009); for GFI, CFI and IFI, values around 0.9 indicate a good model fit, and values around 0.8 indicates an acceptable fit; and for RMSEA, a value of 0.05 or less indicates a well-fitted model, a value between 0.05 to 0.08 indicates an acceptable fit, and a value greater than 0.1 indicates a poor fit (Fabrigar et al., 1999).

The three-factor model clearly exhibits better fit than do the one-factor, two-factor and four-factor models, with the former having a  $\chi^2/df$  of 2.512, an RMSEA of 0.045 and a GFI, CFI and IFI close to 0.9 (Table 2.8). The CFA result of the three-factor model of organizational obligations is illustrated in Figure 2.3.

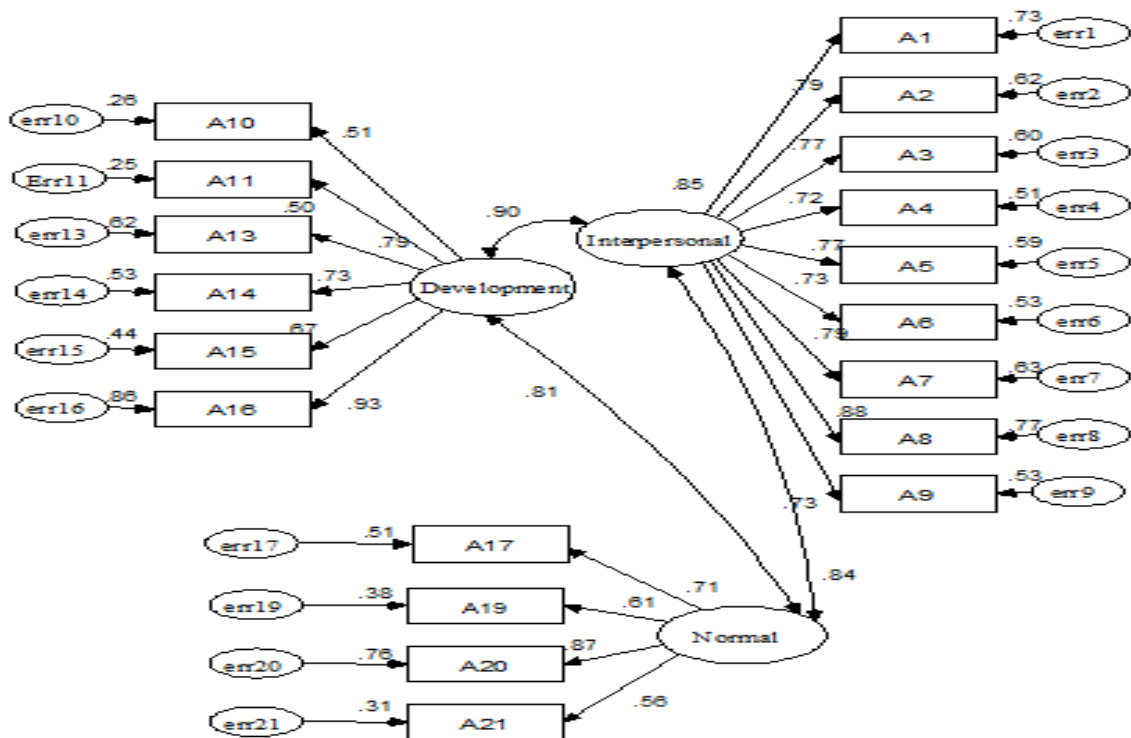


Figure 2.3: Confirmatory factor analysis results for organizational obligations

In Figure 2.3, for elements that most strongly cause concern in employees, item A8 – “treats me honestly” ( $\beta = 0.88$ ) – ranks the highest in the dimension of interpersonal responsibility; item A16 – “provides promotion opportunities” ( $\beta = 0.93$ ) – ranks the highest under the dimension of development responsibility; and item A20 – “provides competitive and fair wages” ( $\beta = 0.87$ ) – ranks the highest in the dimension of normal responsibility.

In sum, although the contents of the psychological contract differ in each dimension, the results of the factor analysis of organizational obligations reveal three dimensions: interpersonal (25.45% of variance), development (19.56% of variance) and normal (13.41% of variance), consistent with Li’s findings (2006).

#### 2.5.2.4 Importance of organizational obligations

The analysis of mean importance and standard deviation of each dimension under organizational obligations as perceived by employees were analyzed at this stage. The results are shown in Table 2.9.

**Table 2.9: Importance of organizational obligations (N=384)**

		Mean Importance	Std. Deviation	Skewness	Kurtosis
organization	interpersonal	3.31	0.708	-0.503	0.980
	development	3.58	0.665	-0.726	0.992
	normal	3.62	0.642	-0.430	0.624

Although some participants rated some items as “not at all” important to them, the results in Table 2.9 suggest that all dimensions under organizational obligations are more than “somewhat” important, with mean above 3 on the 5-point scale. Among these three dimensions, normal responsibility has the highest score, at 3.62. On the contrary, interpersonal responsibility was the lowest rated, at 3.31. This finding is confirmed with the aforementioned EFA and CFA results. Participants are eager to good interpersonal care and interpersonal communication from the organization. This is not surprising. As asserted by Chen (2007), although young

employees in China are becoming increasingly independent, the administrative characteristics of Chinese organization are still influenced and restricted by Confucian traditional culture, which prevents employees from questioning the organization and also prevents the organization from listening to employees.

### 2.5.3 Employee obligations as perceived by employees

#### 2.5.3.1 Validation of reliability

Item analysis was carried out on separate scales to assess the fit of the items in the assigned scale, as well as the reliability of the scales. As previously, a Cronbach's alpha greater than 0.7 is considered acceptable (Table 2.10).

**Table 2.10: Reliability Analysis of Employee Obligations (N=384)**

Item No.	Scale Mean if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
B1	52.73	.471	.878	.882
B2	52.80	.446	.879	
B3	52.73	.582	.874	
B4	53.16	.617	.871	
B5	52.82	.624	.872	
B6	53.45	.567	.875	
B7	52.97	.644	.871	
B8	53.05	.693	.868	
B9	52.91	.619	.871	
B10	52.84	.622	.871	
B11	52.98	.682	.868	
B12	53.53	.342	.892	
B13	52.64	.491	.877	
B14	52.83	.579	.873	

The results in Table 2.10 indicate that the scale is reliable and exceeds the suggested Cronbach's alpha of 0.7. Excluding any item from these measures would not have considerably improved reliability.

### 2.5.3.2 Exploratory factor analysis

As previously indicated, the EFA was chosen to explore the factor structure of employee obligations as perceived by employees. The KMO measure and Bartlett's test of sphericity were interpreted to determine the appropriateness of conducting factor analysis of the items relating to employee obligations. The results are shown in Table 2.11.

**Table 2.11: Results for the KMO measure and Bartlett's test on employee obligations**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.888
Bartlett's Test of Sphericity	Approx. Chi-Square	1142.660
	df	91
	Sig.	.000

*Note: Results were based on Sample B (N=192)*

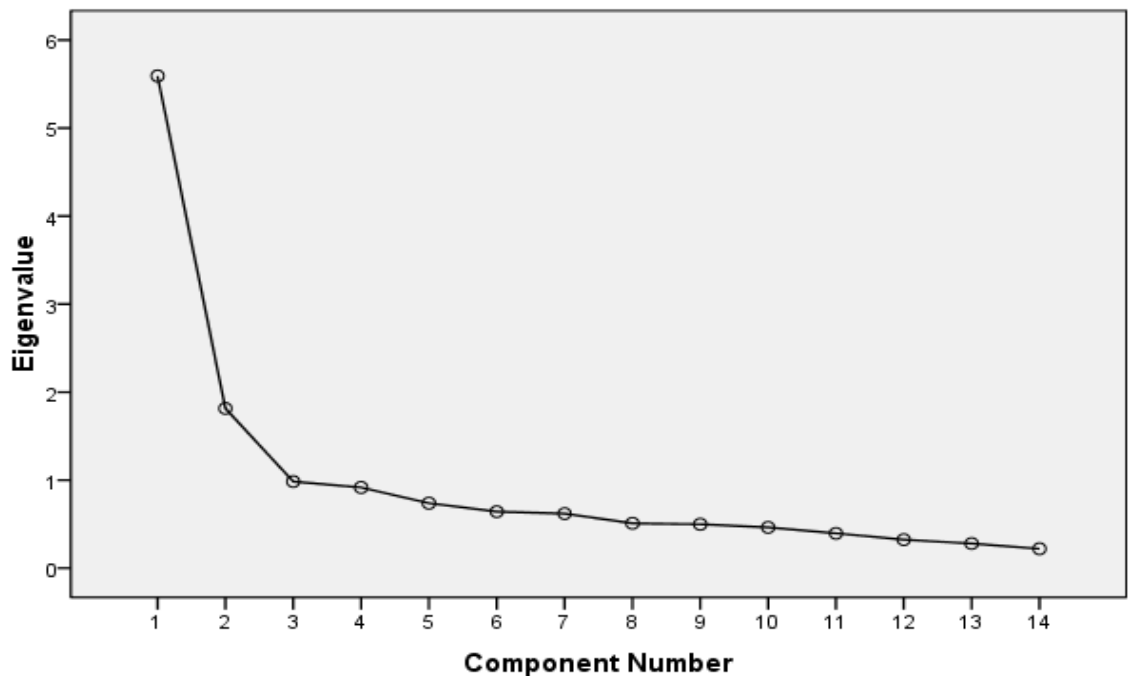
In Table 2.11, the KMO measure of sampling adequacy for the original 14 items under employee obligations is 0.888 very near to 1, confirming the appropriateness of conducting the analysis for this measure. The chi-square value of Bartlett's test of sphericity reaches 1142.660 whose observed significance level is .000, a value small enough to reject the null hypothesis and confirm a strong relationship among variables.

The same as above, a principle components analysis with varimax rotation were also adopted to examine the contents under employee obligations. To select the number of factors, we also used a criterion I which eigenvalues were greater than 1 (Kaiser, 1960) and Cattell's (1960) scree plot. The initial results of the factor analysis of employee obligations, as perceived by employees, are given in Figure 2.4 and Tables 2.12 and 2.14.

**Table 2.12: The total variance explained by employee obligations**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.905	42.182	42.182	5.905	42.182	42.182	3.061	21.862	21.862
2	1.368	9.774	51.955	1.368	9.774	51.955	2.859	20.422	42.284
3	1.042	7.444	59.399	1.042	7.444	59.399	2.396	17.115	59.399

*Note: Results were based on Sample B (N=192)*

**Scree Plot****Figure 2.4: Factor analysis scree plot: employee obligations****Table 2.13: Factor loading for items assessing employee obligations (initial analysis)**

Item No.	Item Description	Rotated Factor Matrix		
		Component		
		Factor 1	Factor 2	Factor 3
B1	Get along well with my colleagues		.845	
B2	Share information and solve problems together with colleagues		.826	
B3	Cooperate with my manager or supervisor to complete job requirements		.738	

B4	Make personal sacrifices for the interest of the organization	.782	
B5	Volunteer to develop new skills to meet the needs of development of the organization	.569	
B6	Volunteer to do tasks that fall outside my job description	.724	
B7	Offer ideas for the development of this organization	.702	
B8	Be committed to the success of the organization	.752	
B9	Advocate and protect this organization's image	.714	
B10	Be loyal to the organization		.627
<b>B11</b>	<b>Work extra hours if needed to get the job done</b>	<b>.461</b>	<b>.590</b>
<b>B12</b>	<b>Nonsupport to competitors</b>	<b>.471</b>	<b>.519</b>
B13	Notify the organization before quitting my job		.457
B14	Willing to accept internal job transfer as needed		.454

*Note: Results were based on Sample B (N=192)*

As can be seen in Figure 2.4 and Tables 2.12, the same as organizational obligations, the results for employee obligations also suggest a three-factor structure and that these three factors account for 59.399% of variance, Factor 1, 2 and 3 have initial eigenvalues of 5.905, 1.368 and 1.042, respectively.

As previously stated, a factor loading criterion of 0.4 is considered equivalent to a significant loading. A gap of less than 0.13 between the high and low loadings on the same factor was also taken as a criterion for detecting cross-loading. Table 2.13 indicates that none of the items exhibit a factor loading lower than 0.4. Most of the loadings on the three factors are high, except for (1) item B11, "works extra hours if needed to get the job done" (loadings = 0.590, 0.416) and (2) item B12, "nonsupport of competitors" (loadings = 0.519, 0.471). These items were therefore excluded from the measure in all subsequent processing and the factor analysis was rerun with the remaining 12 items, using the same criteria as in the initial analysis. The final rotated solution is shown in Table 2.14.

**Table 2.14: Factor loading of items assessing employee obligations (final analysis)**

Item No.	Item Description	Rotated Factor Matrix		
		Component		
		Factor 1	Factor 2	Factor 3
B1	Get along well with my colleagues		.879	
B2	Share information and solve problems together with colleagues		.857	
B3	Cooperate with my manager or supervisor to complete job requirements		.688	
B4	Make personal sacrifices for the interest of the organization	.730		
B5	Volunteer to develop new skills to meet the needs of development of the organization	.556		
B6	Volunteer to do tasks that fall outside my job description	.718		
B7	Offer ideas for the development of this organization	.766		
B8	Be committed to the success of the organization	.841		
B9	Advocate and protect this organization's image	.732		
B10	Be loyal to the organization			.563
B13	Notify the organization before quitting my job			.855
B14	Willing to accept internal job transfer as needed			.644
Eigenvalues		3.646	2.441	1.672
% of Variance		30.38%	20.35%	13.93%
Cumulative %		30.38%	50.73%	64.66%

*Note: Results were based on Sample B (N=192)*

Table 2.15 indicates that no theoretically meaningless loadings remain after items B11 and B12 were excluded. The results of the factor analysis reveal a three-factor structure in the data set. These three factors account for 64.66% of total variance. The first factor is composed of 6 items (B4–B9) and accounts for 30.38% of item variance. This factor revolves around employee obligations that should be assumed for the development of the organization. The second factor comprises 3



items (B1–B3) and accounts for 20.35% of item variance. This factor emphasizes employee obligations that should be assumed to create a harmonious working atmosphere and good interpersonal relationships. The third factor consists of 3 items (B10, B13 and B14) and accounts for 13.93% of item variance. This factor is directly related to compliance with an organizational code of conduct. Therefore, these three factors can be classified as development responsibility, interpersonal responsibility and normal responsibility, respectively. These factors and their descriptions are summarized in Table 2.15.

**Table 2.15: Summary of factor analysis results for employee obligations**

No.	Factor Name	Item loaded	Description
1	Interpersonal	B1-B3	Establishing good interpersonal relationship and harmony working atmosphere
2	Development	B4-B9	Putting in extra work effort and assuming the extra role of duties for the development of the organization
3	Normal	B10, B13 and B14	Compliance with organization rules and Code of Conduct

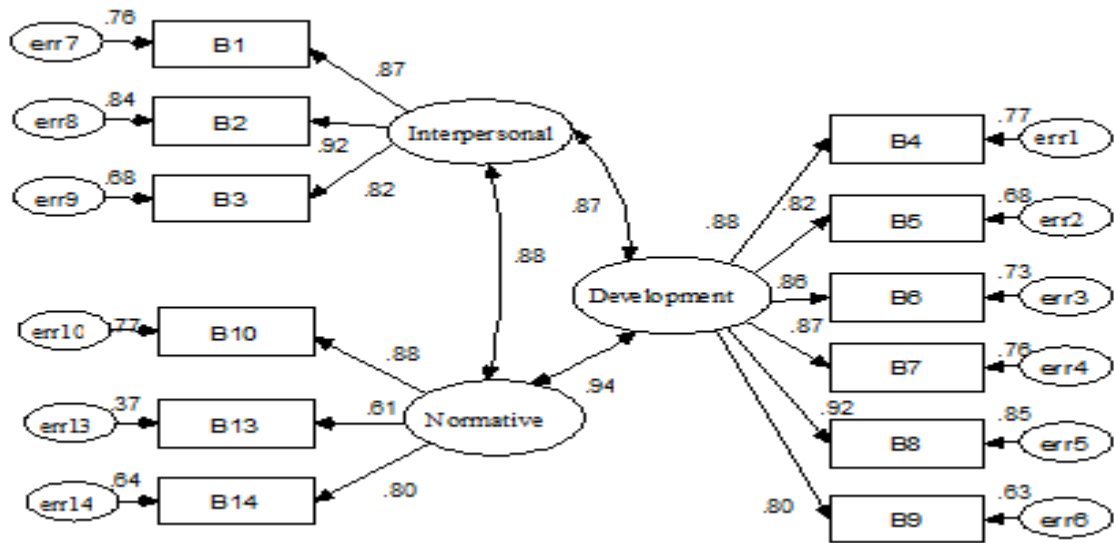
#### 2.5.3.3 *Confirmatory factor analysis*

Similarly, CFA was adopted to test the degree to which these items “fit” the proposed three-dimensional model in EFA. The analysis enables the comparison of the goodness-of-fit of the one-factor, two-factor, three-factor and four-factor models. Sample B (N=192) was used to conduct an analysis at this stage. The results are shown in Table 2.16.

**Table 2.16: Fitting indices of confirmatory factor analysis of employee obligations**

Model	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	NFI	CFI	IFI
One-factor	906.21	137	6.614	0.640	0.881	0.762	0.544	0.790
Two- factor	1060.07	163	6.503	0.085	0.849	0.721	0.751	0.754
Three- factor	922.367	156	5.913	0.080	0.881	0.768	0.788	0.790
Four- factor	914.601	148	6.180	0.083	0.866	0.760	0.787	0.790

As Table 2.16 indicates, all fit measures are not as good as commonly used standards, a result that may be attributed to “self-serving bias,” in which people often credit themselves and believe to have done more for the organization than the organization has done for them. Despite this finding, the three-factor model is still considered the best among the four structures and the relevant fit indices also fall within an “acceptable fit”. The CFA result of the three-factor model is depicted in Figure 2.5.



**Figure 2.5: Confirmatory factor analysis result of employee obligations**

Item B2, “shares information and solves problems together with colleagues” ( $\beta = 0.92$ ), ranks as the highest responsibility of employees in the interpersonal dimension; item B8, “is committed to the success of the organization” ( $\beta = 0.92$ ), ranks the highest under the development dimension; and item B10, “is loyal to the organization” ( $\beta = 0.88$ ), ranks the highest in the normal dimension.

In sum, although the contents of the psychological contract differ slightly by dimension, the results of the factor analysis of employee obligations reveal three dimensions: development (30.38% of variance), interpersonal (20.35% of variance) and normal (13.93% of variance), consistent with Li’s findings (2006). Thus, in conjunction with the conclusion from section 2.5.2, Hypothesis 1 is fully supported.

#### 2.5.3.4 Importance of employee obligations

The analysis of mean importance and standard deviation of each dimension under employee obligations as perceived by employees were analyzed. The results are shown in Table 2.17.

**Table 2.17: Importance of employee obligations (N=384)**

		Mean Importance	Std. Deviation	Skewness	Kurtosis
employee	interpersonal	4.28	0.506	-0.454	1.507
	development	3.97	0.534	-0.312	0.793
	normal	4.07	0.566	-1.087	6.573

Although some participants rated certain items as “not at all” important, the results in Table 2.17 indicate that interpersonal and normal dimensions under employee obligations are more than “moderately important”, with mean above 4 on the 5-point scale. Development dimension is also rated with a mean importance very close to 4. This finding is also confirmed with the aforementioned results from EFA and CFA. Participants believe that they should commit more to the development of the organization.

#### 2.5.4 Psychological contracts of different employees

For supplementary analyses, this study examined potential variations in the participants’ perceptions of contract contents on the basis of gender, age, educational attainment, type of employment contract and tenure. Ordinary least squares (OLS) regression by SPSS 17.0 was performed to test the hypotheses. The results of these regression analyses are shown in Table 2.18.

**Table 2.18: Regression results for each dimension of psychological contract (N=384)**

	Organization obligation			Employee obligation		
	development	interpersonal	normal	development	interpersonal	normal
C	3.1907*	3.6140*	3.7410*	4.3484*	3.8829*	3.9574*
Gender	-0.0884	-0.1087	-0.1252	-0.0663	-0.1373*	-0.0758

Age	0.0216	0.0076	0.0696	0.0403	0.0623	0.1216
Educational attainment	0.0299	0.0029	-0.0175	0.0405	-0.0507	-0.0984
Type of employment contract	0.2390	0.2378	0.1628	0.0325	0.3701*	0.3038*
tenure	-0.0444	-0.0793	-0.0936	-0.0647	-0.0497	-0.0552
R-Square	0.0196	0.0213	0.0215	0.0131	0.0699	0.0462
Adj. R-Sq	0.0067	0.0083	0.0085	0.0001	0.0576	0.0335
F-Value	1.5143	1.6430	1.6605	1.0058	5.6813	3.6585

Note: \* $P < 0.05$

Hypothesis 2 states that different psychological patterns exist across all dimensions between males and females. However, the OLS regression results in Table 2.18 show that gender is only significant at interpersonal dimension of employee obligations. Therefore, Hypothesis 2 is only partially supported.

Hypothesis 3 holds that age has a significant relationship with each of dimensions of the psychological contract in the proposed conceptual model. However, the results from the OLS regression indicate that age is insignificant at any dimensions of the psychological contract. Thus, Hypothesis 3 is unsupported.

Hypothesis 4 holds that educational attainment has a significant relationship with each of dimensions of the psychological contract in the proposed conceptual model. As can be seen in above table, the OLS regression results reveal that educational attainment is insignificant at any dimensions of the psychological contract. Thus, Hypothesis 4 is unsupported.

Hypothesis 5 states that different psychological patterns exist across all dimensions between permanent and temporary employees. The results from the OLS regression show that type of employment contract only significant at interpersonal dimension and normal dimension of employee obligations. Consequently, Hypothesis 5 is only partially supported.

Hypothesis 6 holds that tenure has a significant relationship with each of dimensions of the psychological contract in the proposed conceptual model. However, the results from the OLS regression indicate that tenure is insignificant at any dimensions of the psychological contract. Thus, Hypothesis 6 is unsupported.

## 2.6. Discussion of Model 1

### 2.6.1 Summary of hypotheses results

The results for the hypotheses in Model 1 are summarized in Table 2.19. Out of six hypotheses, one (i.e., the core hypothesis) is fully supported and two are partially supported.

**Table 2.19: Summary of hypotheses for Model 1**

Hypotheses	Details	Results
Hypothesis 1	The psychological contract of Chinese banking call center employees is composed of organization and employee obligations, in which both revolve around three dimensions: interpersonal responsibility, development responsibility and normal responsibility.	Fully Supported Table 2.6+Table 2.8+ Table 2.14+ Table 2.15
Hypothesis 2	Different psychological contract patterns exist among employees, with gender significantly different in each of dimensions of the psychological contract.	limited Support Table 2.18
Hypothesis 3	Different psychological contract patterns exist among employees, with age significantly different in each of dimensions of the psychological contract.	Unsupported
Hypothesis 4	Different psychological contract patterns exist among employees, with educational attainment significantly different in each of dimensions of the psychological contract.	Unsupported
Hypothesis 5	Different psychological contract patterns exist among employees, with type of employment contract significantly different in each of dimensions of the psychological contract.	limited Support Table 2.18
Hypothesis 6	Different psychological contract patterns exist among employees, with tenure significantly different in each of dimensions of the psychological contract.	Unsupported

### 2.6.2 Contents and structures of psychological contracts

For Model 1, this study achieved the objective of empirically studying the contents and structures of call center employees' psychological contracts in a typical

Chinese banking call center. Based on the proposed psychological contract concept model, three dimensions of both organizational and employee obligations are revealed (as indicated by Table 2.6, 2.8, 2.14 and 2.16) — interpersonal, development and normal — consistent with Li's findings (2006). By definition (Tables 2.7 and 2.15), these three dimensions may be evaluated against Rousseau's (1995) transactional – relational typology. The interpersonal and development dimensions are relational because they focus primarily on collective interests and social-emotional exchanges, whereas the normal dimension can be viewed as equivalent to the transactional dimension given that it involves limited emotional investment and largely revolves around material and monetary conditions. Further, relational factors account for 45.01% (organizational obligations) and 50.73% (employee obligations) of total variance; transactional factors account for 13.41% and 13.93% respectively (Tables 2.6 and 2.14). In this case therefore, it can be safely concluded that the psychological contracts of Chinese banking call center employees are more relational than transactional in nature. This finding agrees with those of many Chinese scholars (e.g., Li, 2006; Yao, 2010; Zhang 2011) for employees from different industries in China. The possible reason may be due to the fact that Chinese employees are generally more concerned about intrinsic, rather than extrinsic, rewards under the affections of Chinese traditional culture (e.g., Confucianism), which tend to place more value on “have form”, as discussed in more details in Model 2.

Nevertheless, the results in Figures 2.3 and 2.5 suggest that the specific compositions and importance of contract contents for employees in the banking call center industry differ from those for employees from other industries in China. These findings also differ from those indicated in Western literature. More specifically, interpersonal responsibility is rated as the most important dimension in organizational obligations, accounting for 25.45% of variance. This may be attributed to the reason that the indigenous Chinese construct of *guanxi*, which places emphasis on both work- and nonwork-related personal exchange, lies at the heart of

modern Chinese social order and has been deeply rooted in the hearts of Chinese people. In particular, item A8 (“treats me honestly”) is considered as the primary responsibility of the organization, among the 9 items under interpersonal responsibility. This somewhat surprising result differs from the assertions of many Chinese scholars (e.g., Li, 2006) that career development opportunities are the greatest aspirations of Chinese employees. This finding can be attributed to the existence of multiple types of employees in most Chinese banking call centers. From the philosophical point of view, what people most desire are usually what they are most lacking. In a typical Chinese banking call center, most of the employees hold temporary contracts, as in the target organization, whose temporary employees account for about 85% of the total workforce. These employees primarily hold operational positions (i.e., CSRs) and are considered rank-and-file staff. Unlike permanent employees, they endure greater occupational stress but receive worse treatment in terms of social position and material rewards. Furthermore, the command-and-control management style evident in the Chinese bureaucratic system is typically adopted in stated-owned banking call centers, thereby substantially diminishing effective communication and mutual trust between temporary employees and management teams. A certain degree of hostility between these two groups is commonly discovered in many Chinese banking call centers.

As for employee obligations to the organization, development, rather than interpersonal responsibility, is regarded as the most important dimension, accounting for 30.38% of variance. Item B8 (“is committed to the success of the organization”) is regarded as the primary responsibility of the employees. This result initially appears to contradict that for organizational respect. If a certain level of hostility exists between employees and employers, why would employees be committed to the development of the organization? The result may be attributed primarily to Chinese culture; it venerates Confucian philosophy, which strongly emphasizes tolerance, responsibility and benevolence. As indicated by Li (2006), Confucianism considerably highlights individual responsibility and obligation to society, with the

view that society is more important than individuals. Thus, people should naturally hold societal values above their own. That is, self-sacrifice for the sake of collective interests is advocated in China. Although employees may be dissatisfied with their employers, they remain willing to contribute to the development of an organization. Employees tend to place more value on a collaborative, harmonious and authoritative work environment than one where material rewards are considered the most important motivational factor (Truong & Quang, 2007). This perspective is also the main reason the participants selected items B2 (“shares information and solves problems together with colleagues”) and B10 (“is loyal to the organization”) as the primary responsibilities of an employee under the interpersonal and normal dimensions, respectively.

In summary, although the results of the factor analysis are consistent with Li’s findings (2006) and suggest that a psychological contract with a three-dimensional structure is more strongly aligned with the characteristics of Chinese banking call center employees, the contents of the psychological contract show some features that are similar to and some that are different from those discussed in previous empirical studies on China. In particular, the incongruity in perceptions of organizational and employee obligations, as well as psychological contract breaches as perceived by employees, provide opportunities for further exploration.

### **2.6.3 Psychological contracts and demographic variables**

For additional analysis, Model 1 aimed to examine the influence of individual demographic variables (i.e., gender, age, educational attainment, type of employment contract and tenure) on the employees’ perspectives of desirable psychological contract contents. The findings (at 5% level of significance) suggest that among the five variables examined, limited variations are based only on gender and type of employment contract. Regarding gender, the findings (Table 2.18) indicated that gender is only significant at interpersonal responsibility of employee obligation as perceived by employees. This result may be attributed to the gender traits between



males and females. As indicated by Bellou (2009), females are emotionally expressive and generally show strong sense of responsibility and good interpersonal skills. Regarding type of employment contract, the findings suggested that contract type is only significant at interpersonal responsibility and normal responsibility of employee obligation as perceived by employees. This result may due to the fact that employees who hold permanent working contract in the Chinese banking sectors generally enjoy relatively stable job, higher income and autonomy, as well as more interesting task compared with those who hold temporary working contract. In return, those permanent employees tend to bear more responsibilities in complying with organization rules and making their efforts to establish harmony working atmosphere.

However, most of these hypotheses for individual demographic variables were unsupported. The results are somewhat unexpected in the following aspects:

First, the five variables examined are all insignificant at organization obligations as perceived by employees. That is, participants with different gender, age, tenure, educational attainment and contract type are all indifferent in organization obligations. Three possible reasons may be attributed to this result: (1) Given the current fierce competition in the job market, working in a bank is considered by many Chinese graduates to be a prestigious and safe career choice. Therefore, they are likely to make a compromise and form a fixed mode of thinking that accepting whatever the organization offers to them; (2) Employees in the intensely bureaucratic and highly organized hierarchies of Chinese stated-owned commercial banks may be reluctant to disclose what they perceive that the organization should offer to them; (3) As mentioned in Chapter one, the majority of Chinese banking call center employees are females, young, highly educated and holding temporary contract. Therefore, they are likely to show similarly psychological contract pattern.

Second, although Chinese banking call center employees are highly educated compared with call centers in other industries, educational attainment was originally

expected to be significant given the special recruitment mechanism in the Chinese banking sector. Working in a big bank and enjoying stable income and benefit has long been desired by many Chinese college graduates. However, with around 5 million graduates leaving Chinese universities each year, the situation in the job market is getting tighter and tighter. Therefore, a far-famed Chinese key university bachelor or master degree is almost the minimum requirement for seeking a permanent post in a major bank in China, especially for stated-owned banks. On the other hand, for those who want to enter the banking sector with an ordinary university degree or diploma, the best they can hope is to find a temporary post or groundwork in a bank. In order to further investigate the relationship between educational attainment and contract type, a contingency table analysis of respondents for whom both qualification and contract type was known (N=377), was conducted. The results are shown as follows:

**Table 2.20: Contingency table analysis: Educational attainment and contract type (N=377)**

	<b>Temporary</b>	<b>Permanent</b>	<b>Total</b>
<b>Non-masters</b>	335	29	364
<b>Masters</b>	0	13	13
<b>Total</b>	335	42	377

*Note: Non-masters= university diploma and bachelor degree, masters=master degree or above, temporary=temporary working contract, and permanent=permanent working contract.*

As indicated in Table 2.20, employees with at least a master degree are all holding permanent contract, whereas only 29 employees (less than 10%) with non-master degrees are holding the same contract. However, it is surprisingly to see the result that educational attainment is insignificant at any of dimensions. Apart from previously mentioned reasons, the other possible reason may due to the small number of master degree holders in the sample.

In summary, although only two demographic variables slightly influence the employees' perception of a desirable psychological contract, the findings of the supplementary analysis are still valuable. It confirms that demographic variables

have little relationship with the psychological contract of Chinese banking call center employees. This issue may offer an avenue for further research into employer–employee relationship patterns.

# **Chapter Three – Study 2: Linking Supervisor-Subordinate Guanxi to Attitudinal Outcomes: The Mediating Role of Perceived Psychological Contract Breach**

## **3.1 Introduction**

As an important aspect of organizational dynamics, relationships between supervisors and their subordinates have long been regarded as one of the most crucial relationships in contemporary organizational settings (Yuan & Jian, 2012). Such relationships have received considerable attention from academic and practical fields in the past decades, with findings typically suggesting that supervisors tend to treat their subordinates differentially in various aspects (Graen & Uhl-Bien, 1995; Katrinli et al., 2008), and the quality of such relationships is associated with various organizational outcomes (Law et al., 2010). In China, however, because of the profound and lasting influence of Confucianism, the interactions between supervisor and their subordinates are complicated and usually defined by many researchers as supervisor-subordinate *guanxi* (SSG). Compared with the Western concept of leader-member exchange (LMX), this indigenous Chinese construct is wider in scope and scale. It mainly differs in terms of how supervisors and subordinates are affected by such relationships (Chen et al., 2009). However, the concepts and nature of *guanxi* are not yet clear, because *guanxi* has various related meanings in Chinese society (Wong et al., 2010). In addition, the study of SSG is still in its infancy. A variety of different definitions coexist, and the link between the quality of SSG and various employee work outcomes is not thoroughly investigated.

Furthermore, Rousseau (1995) indicates that a psychological contract arises from sense-making processes. Thus, the psychological contract is likely to be misinterpreted by individuals and may result in perceived breach of such contract. Given the potential negative consequences of psychological contract breach, it has attracted considerable attention in Western literatures (Dulac et al., 2008). Lo and

Aryee (2003) point out that the implication for reactions to perceived contract breach is likely to be affected by cultures and hence people's value and thinking pattern. However, psychological contract breach in China is still under-researched, and the role of perceived breach of psychological contract in the *guanxi* context remains unexplored.

Given the above background, as the first part of study 2, Model 2 is based on the findings of Model 1. It extends the findings of Model 1 by incorporating the indigenous Chinese concept of SSG in the investigation of the psychological contract and breaches of this contract in the context of Chinese banking call centers. It aims to achieve four core objectives. First, it seeks to examine the link between SSG quality and employees' job satisfaction, affective commitment, organizational identification, and turnover intention in the context of Chinese banking call centers. Second, it intends to investigate the relationship between SSG quality and perceived breach of the psychological contract by center centre employees. Third, it investigates the impact of perceived breach on employees' attitudinal outcomes. Finally, it seeks to develop a mediation mode in which perceived breach of the psychological contract influences the effects of SSG on employees' attitudinal outcomes. This study is expected to enrich the academic literature by examining the role of perceived breach of psychological contract in the relationship between social exchange relationship quality (SSG) in the Chinese context and employees' attitudinal outcomes. Practically, the confirmation of the mediating role of perceived breach of psychological contract in such relationships from this project will also help the managers and the organization to encourage the proper behaviors that promote high-quality SSG and reduce employees' negative feelings of psychological contract breach.

## **3.2 Theoretical Position**

### **3.2.1 Psychological contract breach (PCB)**

#### *3.2.1.1 Definition of PCB*

On the basis of Rousseau's (1989) study, Morrison and Robinson (1997) provide a commonly cited and accepted definition of psychological contract breach (PCB): it is the cognition that one's organization failed to fulfill one or more of its promised obligations within one's psychological contract in a manner commensurate to one's contributions. That is, PCB is an individual's perceived cognitive assessment of a discrepancy between what was promised by the employer and what has been delivered in return. Therefore, perceived breach of psychological contract is an individual subjective experience and is conceptualized as a continuum that ranges from deficiency to fulfillment (Lambert et al., 2003). As indicated by Epitropaki (2012), perceived breach can and does occur in the absence of an actual (objective) breach. In other words, an individual believes that a breach occurred, affecting one's feelings and behaviors regardless of whether an actual breach took place (Robinson, 1996). For example, employees usually stay in the company for three years, and then they become front-line managers. An individual employee may come to see this as a promise having been made. And this promise may then be perceived as having been broken if he or she has a problem and is not promoted to the front-line manager within three years. Indeed, as pointed out by Robinson and Morrison (2000), when PCB has occurred it is often not possible to verify whether a promise has been made explicitly or has been inferred.

Notably, several studies (e.g., Morrison & Robinson, 1997; Bordia et al., 2008) also introduce the concept of psychological contract violation (PCV) into literature to distinguish it from PCB. By definition, PCV is an emotional experience (e.g., disappointment, anger, and betrayal) that, under certain circumstances, may arise from perceived breach. That is, perceived violation can be regarded as the effects that

follow perceived breach (Bal et al., 2008). For example, an individual employee may realize that a promotion promised to happen at a certain time was not fulfilled. This incurs a perceived breach. But only if negative emotional responses occurred, perceived breach turns into contract violation.

This distinction yields two important academic implications. First, it provides an easy approach to distinguishing perceived PCB and the possible affective reactions to such breaches (Conway & Briner, 2005). Second, it offers an opportunity to separate the deeply emotional responses to such breaches from other types of responses. Nevertheless, it also suffers from two major shortcomings. First, fully separating perceived breach from perceived violation is difficult in practice because the two concepts are often highly correlated (Guest, 2008; Petersitzke, 2009), and each may incorporate a wide range of different responses (Gammie, 2006), including both attitudinal reactions, such as anger, frustration, distress, disappointment, and reduced commitment (Pate & Malone, 2000; Robinson & Morrison, 1995), and behavioral reactions, such as quitting, reduced job performance, and diminished extra-role performance (Robinson & Rousseau, 1994; Sturges & Guest, 2004). As summarized by Sparrow (1998), “you only know what it was when it is breached [or violated].” In other words, perceived breach by one employee may be considered as perceived violation by another. Second, the definition of PCB under this distinction may be too broad to include any type of perceived discrepancy, from very subtle implied breaches (e.g., the manager does not smile at an employee the way he or she usually does in the morning) to highly explicit breaches (e.g., the HR manager promises an employee that pay will be based on yearly performance, yet the employee’s salary remains the same after a year with no reason offered and despite the achievement of high quality performance).

In sum, although research on the differentiation between PCB and PCV yields interesting implications, the two concepts may not be fully separable (Guest, 1998). The current study, therefore, does not distinguish between the two, and uses PCB to indicate both perceived breach and perceived violation for the rest of this research.

### *3.2.1.2 Consequences of PCB in work attitudes*

Work attitudes are employees' evaluation of the employer and the work in general. Previous research on psychological contracts indicate that perceived breach causes a significant effect on employees' work attitudes since it often involves the breaking down of trust, feelings of inequity, loss of inducements and impediments to fulfilling ambition (Cable, 2008). When an individual perceives an organization to have breached the psychological contract, he or she more negatively reflects on his or her employment relationship with the organization and is less likely to contribute it. As indicated by Bal et al. (2008) and Harrison et al. (2006), studying work attitudes is practical significance because they normally occur before actual actions are undertaken and serve as predictors of key workplace behaviors. In what follows, four widely accepted attitudes are discussed.

(1) Affective commitment. As one of the most frequently studied attitudinal outcomes, the affective commitment of an individual employee can be defined as an individual's emotional attachment to, identification with, and involvement in an organization (Meyer & Allen, 1997). It reflects the psychological bond that links employees to their organizations (Ngo et al., 2012). Research suggests that the extent to which individuals' needs and expectations about an organization are matched by their actual experiences influences their levels of affective commitment (Restubog et al., 2006). Employees tend to experience PCB if they perceive the organization to inadequately fulfill its commitment to them. The norm of reciprocity indicates that an individual employee is likely to reciprocate the unmet promissory expectations by decreasing his or her affective commitment to the organization (Agarwal & Bhargava, 2013). With a wide range of samples, existing empirical studies also provide support for the negative relationship between PCB and affective commitment (e.g., Johnson & O'Leary, 2003; Thompson & Heron, 2005).

(2) Job satisfaction. Job satisfaction is defined by Locke (1976) as a positive emotional state that results from the evaluation or appraisal of one's job or job



experiences. It is commonly recognized as a multifaceted emotion that includes individual feelings about various intrinsic and extrinsic job elements (Ngo et al., 2012). Numerous empirical researchers find PCB to be associated with low job satisfaction (Gakovic & Tetrick, 2003; Pate et al., 2003; Sutton & Griffin, 2004). In a longitudinal study, Sutton and Griffin (2004) report that perceived breach more strongly affects job satisfaction than do any other job-related experiences. Johnson and O'Leary (2003) find that contract breach significantly diminishes job satisfaction because employees feel disillusioned about organizations.

(3) Organizational identification. According to Mael and Ashforth (1992), this concept is defined as "the perceived oneness with an organization and the experience of the organization's success and failure as one's own." It is deeply rooted within the framework of social identity theory (Epitropaki, 2012), which asserts that individuals tend to classify themselves, as well as others, into different social groups (e.g., professional affiliations and ethnic groups). Through the identification process, employees can create a sense of order in their minds (Hogg & Terry, 2000), associate themselves with a particular group, perceive themselves as psychologically intertwined with the fate of the group (Ashforth & Mael, 1989), and act in the best interests of this group. Identification with a group fulfills employee needs, including safety, belongingness and reduction of uncertainty (Pratt, 1998). Empirical evidence indicates that PCB imposes a pronounced negative effect on organizational identification. When employees experience a contract breach, they may no longer consider the employee-employer relationship as rewarding and their group membership in an organization as fulfilling their needs (Masterson & Stamper, 2003). Consequently, they are less likely to contribute and perceive a shared destiny with the group, and their feelings of self-worth and sense of belonging are seriously eroded. Therefore, they may be unwilling to identify with the group and the organization (Epitropaki, 2012).

(4) Turnover intention. This concept refers to an employee's intention to voluntarily leave an organization. In Hom and Griffeth's (1991) turnover model,

turnover intention is regarded as the last stage in a sequence of withdrawal cognitions of an employee, ranging from contemplating leaving to investigating alternative job positions and comparing these alternatives to one's current job. It is generally recognized as a strong predictor of actual turnover (Rosin & Korabik, 1991). Although many empirical findings demonstrate that employee turnover intention and actual turnover increase in response to PCB (e.g., Lo & Aryee, 2003; Turnley & Feldman, 2000), turnover intention is more extensively examined than actual turnover in the research of PCB. This is attributed to two possible reasons: First, many empirical studies have repeatedly shown that turnover intention is more directly and closely related to PCB than is actual turnover (Petersitzke, 2009). Second, in practice it is difficult to find and contact people who have already left the organization. Employees generally begin to consider leaving an organization when the organization does not fulfill its promises or obligations, but this consequence is purely personal and rarely observable. They can look for alternative jobs without their current employer noticing. Therefore, employees face a relatively low risk of negative repercussions from organizations, indicating that plans to leave current jobs are more likely an outcome of breach by the organizations.

### **3.2.2 Leader-member exchange (LMX)**

#### *3.2.2.1 Development of LMX*

As a well-established construct related to workplace dyadic exchange relationship, the conceptualization of LMX theory was first presented nearly 40 years ago and has received considerable empirical attention in organizational science research since (Loi et al., 2009). According to Graen and Uhl-Bien (1995), LMX theory has experienced four different stages of development, which are briefly described as follows:

Stage one – Discovery of differentiated dyads. Studies on LMX issues began with Vertical Dyad Linkage (VDL) research by Dansereau and his colleagues in

1975. They found that managers tended to develop differentiated relationships with their direct reports, rather than using an average leadership style. At this early stage, studies mainly focused on managers' behaviors as described by their direct reports.

Stage two – Investigation of characteristics of LMX relationships and their outcomes. The VDL work triggered numerous follow-up studies. The nature of these differentiated relationships developed by managers was further investigated. Studies at this stage can be roughly divided into two categories: First, studies investigating characteristics of LMX relationships, such as work on leader-member value agreement (e.g., Graen & Schiemann, 1978), decision influence (e.g., Scandura & Graen, 1986), and influence tactics (e.g., Deluga & Perry, 1991) and second, studies evaluating relationships between LMX and its various outcomes, such as studies on turnover (e.g., Vecchio et al., 1986), empowerment (e.g., Keller & Dansereau, 1995), and performance (e.g., Bauer & Green, 1994).

Stage three – Description of dyadic partnership building. Studies in this stage focus on the Leadership Making model developed by Graen and his colleagues in 1982. Unlike the VDL research, the Leadership Making model states that managers should provide all employees access to the LMX process by making initial partnership offer to every subordinate in order to make the LMX process perceived by employees to be more equitable and to recognize the potential utility for more high-quality relationship development in organizations.

Stage four – Aggregation of differentiated dyadic relationships to group and network levels. Rather than focusing on LMX relationships as independent dyads, studies at this stage mainly attempt to take LMX relationships as network assemblies by mapping the leadership structure with different organizational task structure (Scandura, 1995). This stage involves rethinking and expanding the traditional view of LMX out of its narrow focus to a broader framework (Graen & Uhl-Bien, 1995). However, this stage of research is still in its infancy with limited empirical investigations in this area (Graen & Uhl-Bien, 1995).

### 3.2.2.2 *Definition of LMX*

LMX is rooted in role and social exchange theories (Gerstner & Day, 1997), and refers to the quality of exchange relationship that develops between supervisors and subordinates (Eisenberger et al., 2010). Supervisors have expectations from their subordinates in terms of accomplishing goals, and subordinates similarly hold role expectations from their supervisors with respect to how they are treated, as well as to the tangible and intangible rewards that they receive for satisfying their supervisors' expectations (Wang et al., 2005). However, subordinates are not simply passive role takers. Wang et al. (2005) contend that a reciprocal exchange process exists between the two parties, in which subordinates may reject, embrace, or renegotiate the expectations prescribed by supervisors. Similarly, supervisors do not treat all subordinates in the same manner because of time and resource limitations. Thus, they classify certain subordinates in an in-group, in which the supervisors reciprocate social emotional resources, thereby forming a high degree of mutual trust and respect, and an out-group, wherein the supervisors exchange only specified and regulated contractual resources with members (Erdogan & Liden, 2002).

Before proceeding, it is important to discuss the similarities and differences between LMX and the psychological contract. Similar to the psychological contract model, LMX is founded on the social exchange relationship that develops beyond that stipulated in traditional legal employment contracts (Yu & Liang, 2004). It involves the exchange of social and psychological benefits, such as autonomy and information (Hogg, 2004). However, LMX is distinctive from the psychological contract in that the former is based on the working relationship between supervisors and subordinates, whereas the latter pertains to the mental bond that links individuals and organizations (Petersitzke, 2009). That is, the nature of (relationship vs. perception) and parties to the relationship (supervisors vs. organization) are differentially perceived in the two concepts.

In sum, LMX theory is based on the observation that supervisors do not treat all

their subordinates in the same manner. In high-quality LMX, subordinates exchange psychological benefits with their supervisors and feel obligated not only to provide adequate job performance, but also to engage in behaviors that are beyond their role expectations and that directly benefit their supervisors (Wayne et al., 1997). In return, supervisors feel obligated to reciprocate such actions by providing their subordinates with intangible and tangible rewards. In contrast to the psychological contract model, LMX is restricted to the relationship between supervisors and subordinates, and can be considered isolated from the organizational context. As argued by Gerstner and Day (1997), this isolation constitutes one of the weaknesses of LMX theory.

### **3.2.3 *Guanxi***

#### **3.2.3.1 *Origins of guanxi***

*Guanxi* (pronounced “guan – shee”) originated in Chinese society because of the strong influence of Confucian philosophy, which formed the basis for the education system of officials during the Han Dynasty (206 BC–8 AD). Despite the political and social situation in China having undergone many changes since then, the influence of the Confucian code of ethics, with its emphasis on harmony and reciprocity, has endured to the present day (Warner, 1993). Notably, although the term *guanxi* is rooted in Confucian philosophy and has spread throughout almost every single aspect of modern life in China, it does not appear in Confucian classics. However, the word *lun* does, and it is within the meaning of *lun* that the derivation of *guanxi* is found. That is, the historical background of *guanxi* is actually based on *lun*. Today, the word *lun* is hardly known to the general public in China and is also rare in modern Chinese, yet it captures the most essential aspects of the ancient Chinese social system and its political and moral philosophy (Chen & Chen, 2004). *Lun* has three types of meaning.

The first meaning of *lun* denotes the paramount importance of *human relations*.

In Confucian philosophy, the most important ones are known as the *wu lun*, which refers to five important human cardinal relationships between ruler and subject, father and son, husband and wife, elder brother and younger brother, and friend and friend. Each party to the relationship is obligated to follow the rules of correct behaviors (i.e., *li*) which consist of both rights and responsibilities for each party. In these relationships, individuals who play superior roles (i.e., ruler, father, husband, and elder brother) are obligated to be benevolent, righteous, and kind towards those in inferior roles (i.e., subject, son, wife, and younger brother). By contrast, individuals in inferior roles are obligated to show deference to their respective superiors by exhibiting obedience, loyalty and filial piety (Lin, 2011).

The second meaning of *lun* is *social order*, which is maintained by individuals who adopt differential behaviors toward others based on the level of their relationships. These levels of relationships may be interpreted metaphorically as “the ripples created when a stone is thrown into water.” The self is at the center of a series of concentric circles, whereas socially related others are differentiated based on the different qualities of relationships; the innermost ripple represents the closest relationships and the highest quality *guanxi*.

The final meaning of *lun* is *moral principles*, which is derived from interactive behaviors of related parties. Moral principles are also highly differentiated. That is, there are no universal moral standards can be applied to all human relationships; rather, each relationship has its own moral principles.

### 3.2.3.2 *Intricacies of guanxi*

The word *guanxi* is written with two Chinese characters: *guan*, as a noun, originally refers to a hurdle or a juncture. As a verb, *guan* by itself means to close. However, together with other words, *guan* can denote other meanings. For example, *guan lian* literally means to “relate to”. *Xi*, can serve as a linking verb, similar to “be” in English. When used as a regular verb, it means “to tie up”. *Guanxi* together

can be used as either a verb or a noun. When used as a verb, it means “to have bearing on”; as a noun, the essential meaning of *guanxi*, as pointed out by Lee and Dawes (2005), pertains to a state in which entities (i.e., human beings, objects, or forces) are connected. The indigenous Chinese concept of *guanxi* does not have a direct Western equivalent because of the intricacies of its definition, but it may be loosely translated as “connection” or “relationship.” However, as indicated by So and Walker (2006), the expression of “connection” or “relationship” in this context has a far broader meanings, because of two main reasons as detailed below.

The first reason is that *guanxi* activities can be described in many different ways because *guanxi* includes implicit elements of mutual interest and benefit, exchange of favors, sentiment, reciprocal obligation and indebtedness. For example, the expression of to “walk *guanxi*” in Chinese means an individual using personal connections to achieve his or her specific purposes, and to “pull *guanxi*” refers to the process of establishing and building an individual’s desired connection by adopting appropriate behaviors.

The second reason is because of the nature of the complexity of *guanxi*. We consider *guanxi* in human relations as an example. It can refer to three different relationships: (1) the relationship between two parties in the same status group or related to a particular person (Wong et al., 2010). Direct particularistic ties are found between an individual and others, such as a former classmate, relative, or former colleague. (2) It refers to actual connections. In such a case, parties involved in the *guanxi* can be a person (e.g., He is my *guanxi*. Mention my name to him. He will help you) or an organization (e.g., Company X is our bank’s *guanxi hu*). (3) It emphasizes the strength and intimacy of direct social ties. For example, Lee and Chen have deep *guanxi*.

Personal connections exist in many cultures, but the pervasive nature of *guanxi* and it is the distinct ways of operation in people’s daily life and economic activity that make it a uniquely Chinese phenomenon (Gu et al., 2008).

### 3.2.3.3 Classification of *guanxi*

In modern Chinese society, *guanxi* is one of the practical ways to express the harmony between individuals in their daily life and workplace (Wong et al., 2010). Once *guanxi* has been built between two individuals, one can ask a favor of the other with the full expectation that the debt incurred will be paid back sometime in the future (Wong et al., 2010). Generally speaking, the development of *guanxi* between two individuals involves the exchange of *ganqing* and *renqing* and the giving of *mianzi* (Kipnis, 1997). These three major characteristics of *guanxi* are briefly described as follows:

(1) *Mianzi* is a prevalent concept in all cultures (Lin, 2010), but its definition differs between Western and Chinese societies. In the West, it is sometime described as “face,” referring to one’s identity in a particular situation (Alexander & Rudd, 1981). In China, it carries an additional meaning, representing the self-image praised by the society and the positive social value earned from interaction with others (Goffman, 1972). It depicts one’s public image and social role in the society, and profoundly influences Chinese social life. Yeung and Tung (1996) indicate that *mianzi* must, to a certain degree, be deliberately manipulated by an individual to enhance the feasibility of *guanxi*. Thus, the practice of *mianzi* closely resembles individual impression management, created to indicate the social status that one has earned from one’s social networks and personal achievements.

(2) *Ganqing* (“sentiment”), according to Yang (1994), can be viewed as a type of social resource that is related to emotional commitments that function as leverage in intimate and enduring social bonds. It is probably the most important characteristic of *guanxi*, and some Chinese often interchange it with this word (Lee & Dawes, 2005). However, *ganqing* actually involves the exchange of social resources and can be regarded as a tool for evaluating *guanxi*. That is, the Chinese tend to use *ganqing* to maintain and assess their *guanxi* with others (Kipnis, 1997). For example, Chinese people usually differentiate between a deep mutual *ganqing* (involves willingness to



make personal sacrifices for other parties) and an affected *ganqing* (involves the exchange of beneficial materials). The complexity of *ganqing* also endows *guanxi* with the attribute of long-term investment because although one may immediately receive *ganqing* from another, the favor may not be repaid until years after (Lin, 2011).

(3) *Renqing* is described by some scholars (e.g., Park & Luo, 2001) as reciprocal favor. Reciprocal favor in Western society follows norm reciprocity, and tends to be provided within a short time and in pursuit of cost-benefit balance (Powell & Goulet, 1996). By contrast, *Renqing* in Chinese society has unique characteristics. *First*, it does not necessarily involve cost-benefit balance. A famous Chinese saying goes “if you have received a drop of beneficence from other people, you should return to them a fountain of beneficence.” In other words, when a favor is received, a recipient should exceed what was offered to him or her. In such exchange, therefore, the size or value of a favor increases (Yeung & Tung, 1996). That is, *renqing* requires long-term or even a lifetime return (Lin, 2011). *Second*, *renqing* is categorized as an emotional investment and represents a strong social norm that binds Chinese society; people who disregard it are often considered to have no credibility or conscience, and lose *mianzi* or even their entire social network (Lee & Dawes, 2005). That is, *renqing* can be considered as the moral force for people to conduct their social exchange in a friendly manner. In this way, *renqing* reinforces the obligations of a *guanxi* relationship.

### **3.2.4 Supervisor-subordinate *guanxi* (SSG)**

#### *3.2.4.1 LMX and Chinese supervisor-subordinate relationship*

Study on the relationship between supervisor and subordinate in an organization is becoming the focus of attention in both academic and practical circles in China. Among these existing studies, most scholars adopt the LMX theory directly to explore the relationship between LMX and various organization outcomes (Wang &

Ye, 2014). However, as research continues, a growing number of researchers indicate that LMX may not fully capture the supervisor-subordinate relationship in the Chinese context (e.g., Cheung & Wu, 2011; Wong et al., 2010). As previously stated, the Western LMX theory is based on work-related fair exchange of efforts and rewards between supervisors and his or her subordinate. A supervisor often acts as the agent of an organization. By working and interacting with their supervisors daily, employees form a relationship with them and exert commitment and effort to the organization (Chen et al., 2002). By contrast, the supervisor-subordinate relationship in China is characterized by communal sharing (Fiske, 1992) and is based on sentimental ties deeply influenced by *guanxi*, which has two main features in the Chinese context.

First, the aforementioned Confucian concept *wu lun* emphasizes five cardinal human relationships and indicates that people should accept their positions in the hierarchy. When these rules of correct behaviors are followed, social order and harmony are maintained. In the context of Chinese organizational life, the relationship between supervisor and subordinate may be viewed as similar to that of the father-son relationship described in *wu lun* (Wei et al., 2010). That is, supervisors are regarded as having the same sort of authority and responsibility assumed by the father of the family. Likewise, subordinates accept the authority of his or her supervisor; in exchange, the supervisor shows consideration and concern for them in a similar way that a father shows protection and concern for his children.

Second, although performance evaluations based on objective criteria are becoming increasingly common in China at present (Ding et al., 2009), supervisors still assess the performance of their subordinates by considering *guanxi*. On the one hand, supervisors consider the loss of *mianzi* (literally “face”) that poor evaluations may bring, and are therefore reluctant to give negative feedback to their subordinates. Moreover, supervisors may even slant results in a positive direction to build harmonious *guanxi* with their subordinates (Fu & Kamenou, 2011). On the other hand, personal *guanxi*, also refers to behavioral-based *guanxi*, which plays an

important role in modern Chinese management (Chen & Tjosvold, 2007). This type of *guanxi* is usually developed by non-work related social occasions and is often used to exchange promises for doing favors for each other. Thus, supervisors, when assessing the performance of subordinates, are likely to evaluate his or her personal *guanxi* with their subordinates. The closer the personal *guanxi*, the more likely those misdeeds will be forgiven as mistakes (Kiong & Kee, 1998).

The above comparison indicates that the Western concept of LMX and Chinese supervisor-subordinate relationship are grounded in social exchange theory and emphasizes the importance of quality interpersonal relationships between supervisors and their subordinates (Law et al., 2000). However, LMX and the Chinese supervisor-subordinate relationship are different in the following aspects.

The first aspect relates to how they are established. LMX is built up merely by workplace exchanges, whereas Chinese supervisor-subordinate relationship is developed by workplace exchanges and informal social occasions after work.

The second aspect involves the exchange content, with LMX being restricted mainly to work-related interactions, such as work performance and task-related information, whereas the Chinese supervisor-subordinate relationship involves a wide range of social and economic benefits.

The final aspect lies in the reciprocity rules required in the exchange. LMX is grounded in the fair exchange of effort-performance and reward between supervisors and their subordinates. The parties involved in the Chinese supervisor-subordinate relationship, however, have unequal rights and obligations as required by their respective roles in the ties (Zhang et al., 2014).

#### 3.2.4.2 *Definition of SSG*

Considering the difference between LMX and Chinese supervisor-subordinate relationship, some scholars (e.g., Chen & Tjosvold, 2007; Cheung & Wu, 2011; Han

& Altman, 2009) define the relationships between supervisors and their subordinates in China as SSG. As a type of *guanxi*, SSG takes on typical features of general *guanxi*, such as feeling, norms, reciprocal obligations, and repaying others' kindness (Farh et al., 1997). Nevertheless, SSG also has its own features that make it different from other types of *guanxi*. First, although SSG contains informal parts of social interactions similar to general *guanxi*, it is based on formal and official work relations. Thus, SSG is influenced by organizational policies and codes of practices to a certain extent and that in turn affects organizational outcomes. Second, a general *guanxi* base usually exists when particularistic ties occur between two individuals such as *tong xiang* (same natal origin), *tong xue* (former classmates), *tong shi* (former colleague), and relatives. However, these particularistic ties are not prerequisites for building and developing SSG.

Unfortunately, consensus on the definition of the construct of SSG in the existing literatures is still lacking, because no unified definition of *guanxi* as a concept is used. Broadly, SSG has been defined in four different ways.

(1) *Defined as a "general guanxi base."* In brief, this definition of SSG intends to emphasize the "particularistic ties" that arise from some common experience or attributes between supervisors and their subordinates (Farth et al., 1998). As indicated previously, particularistic ties exist in general *guanxi* but not necessarily in SSG. The general *guanxi* base is only a foundation of establishing a relationship; it is not the equivalent of *guanxi* itself. Thus, defining SSG in this manner does not touch the core concept of *guanxi*.

(2) *Defined as "instrumental ties."* The typical high power distance of cultural features in Chinese organizations results in supervisors usually playing a decisive role in allocating resources among subordinates. Thus, a subordinate is likely to build a relationship and set an instrumental exchange with his or her supervisor. Following this logic, some scholars, such as Chen & Tjosvold (2007) and Law et al. (2000), define SSG as an instrumental-oriented interpersonal relationship established to

achieve personal goals. They further asserted that SSG is based on mutual interests and benefits between subordinates and their immediate supervisors. However, the definition of SSG as instrumental exchange alone has narrowed its meaning because the relationship between supervisors and subordinates is not a simple allocation of resources; emotional factors in the relationship are also crucial.

(3) *Defined as “expressive guanxi.”* Expressive relationships like familial ties, parties in the relationship are not related by blood, but they attach importance to emotional connection, mutual understanding, and willingness to care for one another. This type of pan-familism *guanxi* is derived from Confucian culture and prevails in Chinese society. Based on this logic, some scholars (e.g., Chen et al., 2009) define SSG as an expressive relationship between supervisors and their subordinates. However, defining SSG as thus cannot describe all types of relationships in the construct (Wang & Ye, 2014) because it may overemphasize the emotional ingredients and introduce difficulties in tracing the instrumental characteristics of the concept.

(4) *Defined as “off-the-job interaction.”* As mentioned previously, one of the main features of *guanxi* is that it is often established by different social occasions (i.e., personal *guanxi*), such as gift giving, lunches and dinners. During these social occasions, promises are usually exchanged for favors for each other, such as helping with promotion. Therefore, SSG is defined by some scholars (e.g., Chang, 2014; Cheung 2009) as the strength of the off-the-job connection or non-work related connection between supervisors and their subordinates developed through social activities. However, a growing number of Chinese organizations have been introducing Western performance appraisal and performance monitoring systems into daily management since the adoption of the open door and market-oriented policies by the Chinese authority (Wong et al., 2010). Thus, supervisors are increasingly unlikely to evaluate their subordinates based mainly on personal *guanxi* although they continue to assess the performance of their subordinates by considering *guanxi* into consideration. In other words, this definition has narrowed

the modern meaning of SSG. Despite social activities remaining crucial in Chinese supervisor-subordinate relationship, the work-related fair exchange of effort-performance and reward is becoming increasingly common in the workplace.

Although the definition of SSG remains inconsistent in existing literatures, three points are worth noting in defining the concept.

First, SSG in modern Chinese society is undergoing a transition because of “a fast-changing environment.” In modern globalization, increasing Chinese originations, especially those preparing for a public listing outside China, are using advanced managerial experience from the West as a reference. Therefore, in developing a relationship with supervisors, Chinese employees at present not only engage in social activities that may help them establish personal, non-work related ties with their supervisors, but more importantly build work ties to perform their work roles.

Second, many empirical studies (e.g., Zhang et al., 2014) have found that SSG falls into the mixed *guanxi* category. That is, it contains various components of *guanxi*, including instrumental exchange, expressive ties, respect, personal-life inclusion, and trust (Chang, 2014; Chen et al., 2009; Chen & Tjosvold, 2007; Han & Altman, 2009).

Third, SSG in Chinese society can be a multifaceted combination of interpersonal- and group-level relationships (Chen et al., 2011). Zhang and Yang (1998) argue that the decision by Chinese supervisors to allocate resources is based on both an individual *guanxi* with supervisors and the latter’s objectivity in making such decisions. At the group level, however, when subordinates perceive that their supervisors systematically allocate resources to other group members based on interpersonal *guanxi*, his or her perceptions on the fairness of the allocation procedures are likely to decrease, and thus affect the relationship with his or her supervisor. Such a decrease may be attributed to the rule of neutrality and social

comparison theory. First, when a supervisor's decision is influenced by the *guanxi* with a particular group member, the rule of neutrality is violated, thereby causing other group members to feel unhappy (Lind et al., 1997). Second, social comparison theory indicates that individuals are likely to compare themselves with similar others in evaluating their own situations (Festinger, 1954). Thus, subordinates' perceived relative value of resources from interpersonal *guanxi* with their supervisors become significant when they compare what they obtained with the value gained by others by *guanxi* (Chen et al., 2011).

In sum, properly defining the construct of SSG is difficult. Various existing definitions only emphasize part of the concept. The fundamental reason may be that the indigenous Chinese concept of *guanxi* is too meaningful, thereby resulting in lack of a direct English equivalent. However, the above discussion indicate that SSG in modern Chinese society falls into the mixed category, contains both work-related and non-work related reciprocal exchanges, and is likely to be affected by group-level relationships. Therefore, this thesis attempts to define the construct of SSG as “a dyadic, multifaceted, instrumental, and sentimental tie that developed by both work-related and non-work related interactions, and has potential to facilitate favor exchanges between the parties connected by the tie.”

#### 3.2.4.3 *Consequences of SSG in work attitudes*

Existing studies show that the quality of SSG can effectively shape subordinates' work attitudes because Chinese employees are more likely to develop relationships with the organization through daily interaction with their supervisors (Han & Altman, 2009). Empirical findings indicate that SSG may reduce employees' turnover intention (Cheung, et al., 2009), and enhance their job satisfaction (Chang, 2014), affective commitment (Cheung & Wu, 2011), and organizational identification (Zhang & Chen, 2013).

Two possible theories underlie the shaping of work attitudes by SSG quality and

justify why subordinates in high-quality SSG with their supervisors are more likely to obtain greater benefits than their colleagues (Law et al., 2000). The first is related to inducement and contribution theory. Subordinates in high-quality SSG are likely to receive more inducements from their supervisors, such as valuable resources, premium assignments, and promotion opportunities, and thus tend to have higher self-esteem and contribution towards their jobs (Wei et al., 2010). In return, supervisors often provide them with positive evaluations on their work assignments, which can motive them to exert increased effort. In addition, considering that those subordinates in high-quality SSG usually have closer relationships with their supervisors, they are more likely to seek work advice from the supervisor, and thus easily meet job requirements and facilitate the executions of their tasks. Consequently, this may further motivate the subordinates. The second is related to the social identity theory. SSG can help the subordinate pursue a positive group identity by categorizing the self and others into perceived in-group and out-group status (Zhang et al., 2014). The in-group subordinate tends to internalize into the evaluation that he or she is a worthy investment by the organization. Furthermore, these perceived in-group subordinates may be more easily satisfied because of this perception of social identity.

#### *3.2.4.4 SSG in the context of call centers*

Call center work is commonly regarded as being characterized by a high degree of routinization, discipline, monitoring, isolation, and control (Huang et al., 2010). Under such circumstances, employees in call centers are likely to experience emotional exhaustion and intense pressure from work (Higgs, 2004), which may result in a breach of the psychological contract, as well as in high employee turnover rate and unsatisfactory performance (Varca, 2004). Thus, the ability to manage personal emotions is important for service workers because they are often required to exhibit patience and empathy in providing customer service. Empirical findings indicate that supervisors play a crucial role in helping subordinates cope with



psychological and physical stress and strain by providing them with material comfort, as well as social and emotional support (Wong & Law, 2002; Zhou & George, 2003). Therefore, having high-quality SSG with supervisors should enable call center employees to function more efficiently in stressful work environments and prevents them from experiencing job burnout (Huang et al., 2010).

Despite the rapid development of call centers, very limited number of studies has investigated the effects of SSG in such settings. Even then, subordinates continue to be reported as exhibiting high levels of affective commitment, job satisfaction, and organizational identification under high-quality SSG with their supervisors (Wei, 2007). As such, subordinates in high-quality SSG are likely to develop high level of trust (Wong et al., 2010) and receive enduring emotional and material support (Wei, 2007), thereby potentially decreasing turnover intention.

However, in the present theoretical study, two completely different views are included on the importance of SSG quality in shaping employees' work attitudes in the context of call centers. First, because advanced computer technology is used, and because standardization and procedures of the management model are implemented, daily call center work is characterized by the routine assessment of service quality, electronic monitoring, and electronic measurement of calls, with the wide application of standardized service scripts for interaction with customers (Taylor & Bain, 1999). Thus, operational rules, rather than leadership processes, dominate call center operations. Based on this logic, several scholars, such as Dunegan et al. (2002), argue that the quality of supervisor-subordinate relationship is less important and have only weak effects on employees' work attitudes in the call center context because those with routine jobs are less likely to be motivated intrinsically. By contrast, other scholars (e.g., Varca, 2004) maintain that frontline supervisors in call centers can effectively reduce job burnout caused by repetitive daily work and bad-tempered customers by providing employees with social and emotional support, such as offering valuable suggestions on how to deal with stubborn customers and arranging favorable work schedules. These scholars argue that the relationship

between supervisors and their subordinates has a significant effect on various call center employees' work attitudes.

### **3.3 Research Design and Hypotheses**

#### **3.3.1 Hypotheses for SSG and its effects on work attitudes**

Previous empirical studies demonstrate that SSG quality is associated with various employees' work attitudes. Expecting SSG quality to profoundly affect various Chinese call center employees' work attitudes is therefore reasonable. In this study, we choose to focus on four key attitudinal variables, namely, job satisfaction, organizational identification, turnover intention, and affective commitment. These four attitudinal variables are the most significant concerns of employees in relation to SSG in Chinese banking call centers, as revealed by our general discussions with many HR managers in different banking call centers in China (the author is a manager of a stated-owned commercial bank and thus has such access). The main reasons are briefly discussed as follows:

First, empirical studies indicate that subordinates who benefit from a SSG relationship will be satisfied with their jobs (Cheung et al., 2009). Job satisfaction is particularly important for call center employees because only satisfied employees can elicit customer satisfaction. This perspective is consistent with the empirical findings of Heskett et al. (1994) and Higgs (2004), who indicate that job satisfaction is important in customer-intensive industries, where customer satisfaction and loyalty are built on interactions between customers and employees.

Second, the high level of turnover rate of frontline employees is probably the most difficult issue that confronts banking call centers in China. As a typical knowledge-intensive service industry, a minimum of three months of comprehensive pre-vocational training is normally required for new employees in most Chinese banking call centers. This requirement shows that a high turnover rate translates to

high recruitment and selection costs. However, many of the interviewed HR managers suggest turnover intention, rather than actual turnover, as a more meaningful focus of investigation because the intention to retain an employee would come too late once employees make up their minds and submit a resignation letter. This phenomenon is probably one of the main reasons turnover intention is more extensively researched in existing literature.

Third and finally, affective commitment and organizational identification are regarded by many of the interviewed HR managers as crucial to a call center's organizational culture. Chinese organizational culture strongly emphasizes a collectivist orientation, which is common among employees and places a high value on commitment to an organization (Tsui et al., 2006). An employee with a collectivist orientation establishes a harmonious *guanxi* with various social groups, strives to achieve group goals, and sacrifices personal benefits for group interests when conflict exists between the two (Wang et al., 2002). The employee is also more likely to be driven by organizational norms, duties, and obligations (Sun, 2009). The theory of organizational culture indicates that affective commitment and organizational identification are the major outcomes of culture (O'Reilly & Chatman, 1996), and empirical findings show that these two outcomes are more likely to occur among collectivists than among individualists (Tsui et al., 2006; Wang et al., 2002). Therefore, numerous Chinese banking call centers have begun exerting more effort to try to enhance organizational culture and motivate employees until they contribute their affective commitment and achieve a sense of organizational identification. Such approaches minimize employee turnover.

Based on above analysis, given that this study considers standpoints of subordinates, the author proposes the following hypotheses:

H1: SSG quality, as perceived by employees, is positively associated with (a) affective commitment, (b) organizational identification, (c) job satisfaction, but negatively associated with (d) turnover intention.

### **3.3.2 Hypotheses for SSG and its effects on PCB**

As discussed above, SSG is essentially work-related and non-work related exchange process between subordinates and their supervisors; mutual interests, respect, and obligation are the key factors in the development of such relationship. SSG begins in the early part of subordinates' careers, during which they learn about interpersonal *guanxi* and work-related issues from their supervisors (Loi et al., 2009). On the basis of mutual interests and social connections, supervisors may help in-group subordinates obtain valuable resources through the former's personal social networks and offer them more advices to meet the job requirement. Subordinates may also take advantage of the close *guanxi* with their supervisors to seek better job-related returns, such as assignment of premium jobs and provision of additional career advancements as well as better work environment (Cheung et al., 2009). Conversely, when one party in SSG believes the other (the supervisor or the organization) to have failed in fulfilling promised obligations (i.e., perceived PCB), mutual trust and respect are compromised and interpersonal hostility occurs, thereby diminishing SSG quality. Empirical findings clearly indicate that perceived PCB is associated with low-quality SSG (Zhang, 2011), in which subordinates tend to avoid their obligations to one another and hold only basic expectations from an organization (Loi et al., 2009). Therefore, we hypothesize the following:

H2: SSG quality, as perceived by employees, is negatively associated with employees' perception of PCB.

### **3.3.3 Hypotheses for PCB and its effects on work attitudes**

As previously discussed, PCB is relatively common (Robinson, 1996) and that an employee exhibits an attitudinal response when he or she perceives a breach (Orvis et al., 2008). Expecting perceived PCB to profoundly affect various Chinese call center employees' work attitudes is therefore reasonable. For the same reason discussed in Section 3.3.1, the proposed study focuses on four key attitudinal

variables. The following hypotheses are formulated:

H3: Employees' perception of PCB is negatively associated with (a) affective commitment, (b) organizational identification, (c) job satisfaction, but positively associated with (d) turnover intention.

#### **3.3.4 Perceived PCB as a mediator**

The previous hypotheses, when combined, set up a logical question related to perceived contract breach potentially mediating the relationship between SSG quality and affective commitment, organizational identification, job satisfaction, and turnover intention. As indicated above, SSG is rooted in social exchange theory. While some researches (e.g., Dulac et al., 2008) have previously shown that perceived PCB is a mediator in social exchange relationships (e.g., LMX), seldom studies have investigated the mediated effect of perceived PCB in the relationship between SSG quality and employee attitudinal outcomes. However, we argue that perceived PCB can be a useful mediator for the following two reasons:

First, Dulac et al. (2008) and Uhl-Bien & Maslyn (2003) indicate that the quality of a social exchange relationship is likely to affect an individual employee's expectation of the immediacy of returns. They further suggest that as the quality of social exchange relationship improves, individual concerns about the time span for reciprocation decrease in importance. Thus, individuals in high-quality social exchange relationships are likely to interpret perceived PCB as a natural lapse and will be rectified in the future, as such tend to believe that promises will be fulfilled later on rather than abandoned. Therefore, employees in high-quality SSG may be less likely to perceive breach of psychological contract and consequently more likely to be satisfied with their jobs, committed, and inclined to stay with their supervisors and the organization.

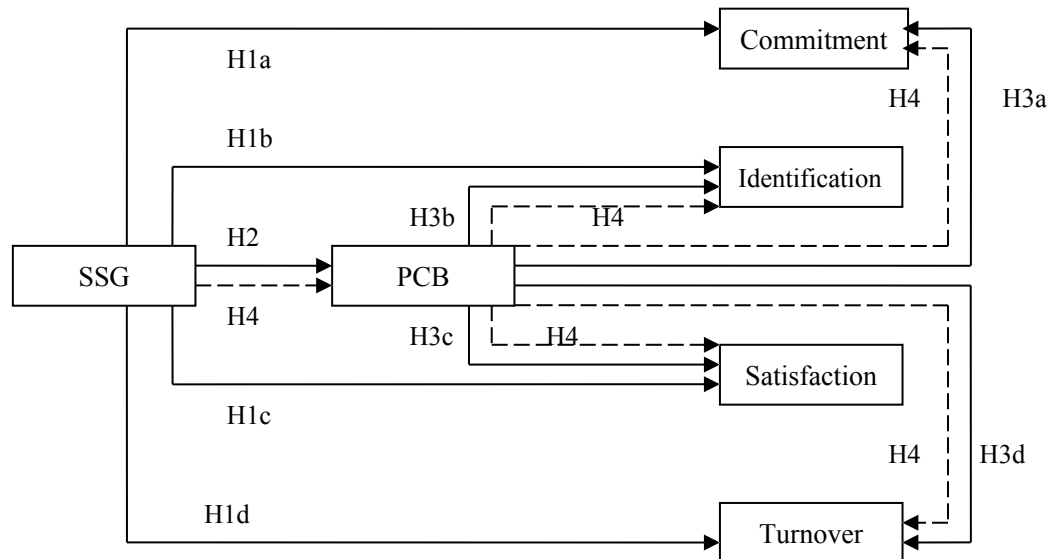
Second, Blau (1964) indicate that developing a high-quality social exchange relationship requires a large investment of time, and this investment should motive

parties in the relationship to make efforts to maintain the relationship. Thus, although renegeing may bring perceived PCB, supervisors are less likely to intentionally renege on promises they have made to their subordinates with whom they have high-quality relationships. Doing so might put the established social exchange relationships at risk.

Based on above analysis, we expect that SSG quality is independently related to perceived breach of psychological contract and this breach partially account for the relationship between SSG quality and employee attitudinal outcomes.

H4: Employees' perception of PCB partially mediates the relationship between SSG quality and affective commitment, organizational identification, job satisfaction, and turnover intention.

The sets of relationships that support the proposed hypotheses are summarized in Figure 3.1 as follows:



**Figure 3.1: Hypothesized mediation model of perceived PCB**

*Note: Commitment = Affective commitment; Identification = Organizational identification; Satisfaction = Job satisfaction; Turnover = Turnover intention*

## **3.4 Research Method**

### **3.4.1 Research setting, participants, and procedures**

The research was conducted in March 2012 at the same site where Model 1 was carried out. The survey questionnaire was presented to 410 potential respondents, constituting almost all the employees onsite that day and including nearly 90% of the total workforce of the target call center. During data collection, we clearly explained the research objectives and data collection procedures to the participants. To ensure anonymity, we asked the participants to return the completed questionnaires directly to us in a sealed envelope. A total of 402 questionnaires were returned, yielding a response rate of 98.05%. Because of missing data (less than 10 of the 48 questions answered), 3 of the 402 questionnaires were discarded, resulting in a final count of 399 questionnaires.

### **3.4.2 Measure**

The procedures in this research were developed using well-established measurement scales adopted from existing studies. Scale items for intention to leave and affective commitment were originally expressed in Chinese, and the other items in the questionnaire were originally written in English. Notably, as this study was conducted in the Chinese call center, the original English questionnaires were slightly modified to adapt to Chinese habits of expression. Back translation was conducted by two bilingual speakers of Mandarin and English. The original English scale items were translated into Chinese and then translated back into English to ensure consistency between English and Mandarin versions. The English version of the questionnaire is provided in Appendix 2.

#### *3.4.2.1 Independent variable*

*SSG quality.* As stated before, *guanxi* phenomenon is widespread throughout

Chinese daily life and has various related meanings in Chinese society. However, despite the importance of *guanxi*, the study of *guanxi* has been impeded by the lack of a consistent SSG scale. In addition, no published SSG scales have formal psychometric support. For example, some scholars, such as Farh et al. (1998), hold a categorical view and measure SSG by using different particularistic ties (e.g., former classmate and same last name). As discussed above, particularistic ties exist in the general *guanxi* base but not necessarily in SSG, and this approach may not capture the core concept of *guanxi*. On the basis of the descriptions of respondents, Law et al. (2000) screened six concrete activities and developed a unidimensional measure of the quality of SSG. However, this measurement lacks of a theoretical foundation and stresses *guanxi* between supervisors and their subordinates in non-work settings only. Chen et al. (2009) developed a three-dimensional SSG scale that reflected certain behaviors that are associated with *guanxi*. The three dimensions are affective attachment, person-life inclusion, and deference to supervisor. However, Chen's et al. measurement is seldom used by other scholars because items in the measurement are too narrow and mainly emphasize expressive aspects of *guanxi*.

All in all, existing SSG measurements suffer from three major shortcomings. First, they focus on measurement of off-job activities in the development of *guanxi* (e.g., Wong et al., 2003). This way of measuring SSG has narrowed the true meaning of the construct by ignoring work-related *guanxi* between supervisors and their subordinates. Second, SSG falls into the mixed *guanxi* category, which means that two parties involved should keep expressive and instrumental ingredients in this relationship (Zhang et al., 2014). However, many existing measurements fail to address this issue and include either expressive or instrumental *guanxi* only. Third and finally, SSG is a multifaceted combination of interpersonal- and group-level relationships (Chen et al., 2011), but the vast majority of existing measurements emphasizes interpersonal *guanxi* only.

Furthermore, although *guanxi* remains of paramount importance in modern Chinese society, developing a universal SSG measurement is not possible because of



the fast-changing environment in China. For example, the relationships between supervisors and their subordinates in Chinese state-owned enterprises, joint ventures, foreign-invested companies, and private enterprises are undoubtedly different because of differences in business culture. Moreover, SSG in different industries is also likely to be different. For instance, employees in the Chinese banking industry are often highly educated and from relatively well-off families. Many of them were educated in Western countries and are thus less likely to be deeply influenced by Confucianism. By contrast, employees in the construction industry are mainly migrant workers who come from rural areas in China. Most of them have not received any college educations and are thus likely to be deeply influenced by Chinese traditions.

For the abovementioned reasons and to the best of our knowledge, no available scale exists to measure SSG quality in the context of Chinese banking call centers. The best way is to develop a suitable new measurement. However, the author failed to obtain access in the target banking call center. Therefore, we have to find an alternative scale in the existing literature.

According to the aforementioned definition of SSG in this study, the following are the key features of the construct: (1) multifaceted; (2) fall into a mixed category of instrumental and expressive exchanges; and (3) developed through work-related and non-work related interactions. On the basis of this definition, the measure designed and used in this study is an 11-item scale that combines seven work-related items from Graen and Uhl-Bien (1995), three interpersonal-level social connection items from Cheung and Wu (2011), and one group-level item from Wang et al. (2005). Such combination is used for the following reasons: First, because standardization and procedures of the management model are implemented, daily call center work in the Chinese banking industry is highly standardized. Daily interactions between employees and their supervisors in the workplace often happen at pre-shift and post-shift group meetings. Moreover, because a scientific performance evaluation system is employed, most employees' key performance

indicators (KPIs) come directly from electronic monitoring and electronic measurement system. Thus, *guanxi* between Chinese banking call center employees and their supervisors in the workplace is mainly based on various fair exchanges. For this reason, this study employs the commonly cited measurement of Graen and Uhl-Bien (1995) to assess the quality of SSG in the workplace. Second, unlike call centers in the West, off-work social activities are common between employees and their supervisors in Chinese banking call centers, such as eating, playing and travelling together. Many organizations even allocate funds to encourage offer such activities. Therefore, this study adopts three items from Cheung and Wu (2011) to measure the non-work related part of SSG quality. Finally, as indicated before, the decision by Chinese supervisors to allocate resources is based on both individual *guanxi* with the supervisors and the latter's objectivity in making such decisions (i.e., group-level *guanxi*). Thus, this study also includes one group-level *guanxi* item to correspond with the refined definition of SSG quality.

Given that this study is conducted in the Chinese context, we therefore adopted Chinese version of the scale items from existing studies (e.g., Zhang, 2011; Wang et al., 2005) in accordance with Chinese thinking habits. The participants could thus understand them without any problems. For reference, an English version of the questionnaire was drafted, for which two bilingual speakers of Mandarin and English translated the original version into English. The English version can be found in Appendix 2.

All the items were rated from 1 ("strongly disagree") to 5 ("strongly agree"). An example of a group-level *guanxi* item is "In my work group or division, task allocation is often based on *guanxi* with supervisor(s)," and an example of an interpersonal-level *guanxi* item is "I share interest in leisure activities (e.g., sports and movies) with my supervisor."

In order to further verify the appropriateness of using this SSG scale, 4 HR managers and 6 general employees from two different stated-owned Chinese banking

call centers were approached. They reported that the proposed scale is appropriate. Confirmatory factor analyses (CFAs, using Amos 6.0) were also conducted to examine distinctiveness of the scale. 7 work-related items Graen and Uhl-Bien (1995) were combined to generate one factor and the rest of 4 *guanxi* items were combined to another factor. Results suggested that the single factor model ( $\chi^2/df = 6.323$ , RMSEA = 0.124, GFI = 0.85, NFI = 0.87, CFI = 0.89, and IFI = 0.89) is better fit than the two-factor model ( $\chi^2/df = 11.11$ , RMSEA = 0.259, GFI = 0.70, NFI = 0.69, CFI = 0.70, and IFI = 0.71). That is, the SSG quality should be treated as a single factor.

#### 3.4.2.2 *Proposed mediating variable*

*PCB*. As Lambert et al. (2003) and Robinson (1996) indicate, PCB is a subjective experience and is conceptualized as a continuum that ranges from deficiency to fulfillment. The present study focuses on the participants' perception of breach (not objective breach). The degree of perceived PCB was assessed using a multiplicative measure. This method was originated from Turnley and Feldman (1999) and adapted by Orvis et al. (2008). The organization-based obligations that were assessed were based on the obligations examined in Model 1. The multiplicative measure comprises 19 items that revolve around three typical aspects of organizational obligations: interpersonal dimension, development dimension, and normal dimension. An example of such an item is "provides me with a friendly work environment."

The participants were first asked to assess the degree of importance of each obligation on a scale of 1 ("not at all important") to 5 ("extremely important"). They were then asked to make a comparison between the amount of each obligation they had actually received and the amount they perceived the organization had committed to provide. The responses were measured on a five-point scale ranging from -2 ("received much less than expected") to +2 ("received much more than expected"). Furthermore, the responses were reverse scored, so that the higher and more positive

the score, the greater the magnitude of PCB. The degree of PCB was then calculated by multiplying the magnitude of perceived breach for each obligation by the importance of that same obligation.

An overall breach composite was created by summing across breach items (19 items in this study). The rationale behind this method is that obligations that are more important to the participant are more heavily weighted in the calculation of breach, with higher scores indicating a greater degree of contract breach and a negative score indicating contract fulfillment (Orvis et al., 2008). This method of breach assessment, as noted by Turnley and Feldman (2000), considers the full range of the variances possible on the scales: from over-fulfillment (receiving much more than expected) to under-fulfillment (receiving much less than expected).

#### 3.4.2.3 *Dependent variables*

Similar as before, we adopted Chinese version of the scale items from existing studies where it is possible in order to ensure the understanding of the participants. For reference, an English version of the questionnaire was drafted, for which two bilingual speakers of Mandarin and English translated the original version into English. The English version can be found in Appendix 2. The responses to the four dependent variables were also measured on a five-point Likert-type scale, with anchors ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

(1) *Job satisfaction*. A 5-item scale for job satisfaction was adopted from Yao (2010). Sample items include “All in all, I’m satisfied with my current job” and “I’m satisfied with my current salary and bonus.”

(2) *Turnover intention*. A 3-item scale adopted from Zhang (2011) was used to measure intention to leave. One of the items is “I have a strong desire to quit my job right now.”

(3) *Affective commitment*. This construct was measured by a 4-item scale

originally developed by Tsui et al. (1997) and further modified by Chen (2007) to apply in the Chinese context. One of the items is “I think my current job is the best job I can find.”

(4) *Organizational identification*. A 6-item scale adopted from Mael and Ashforth (1992) was used to measure this construct. An example is “When someone criticizes the organization, I feel like it’s a personal insult.”

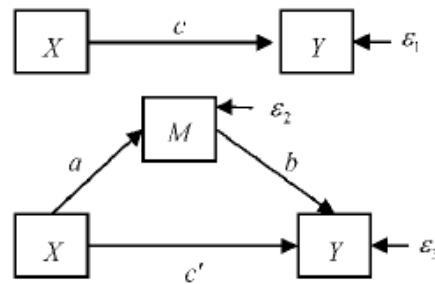
#### 3.4.2.4 Control variables

Previous studies have shown that individual’s demographic characteristics, such as age, gender, educational attainment, tenure, and type of employment contract are likely to influence the interactions between supervisors and their subordinates (Cheung et al., 2009; Yao, 2010; Zhang, 2011). Therefore, we controlled for these five demographic variables that might potentially influence the results.

### 3.4.3 Analytical strategy

#### 3.4.3.1 Current practices for mediation analysis

Mediating variables have long been popular in psychological research because they act as third variables and explain how or why two other variables (e.g., independent and dependent variables) are related (MacKinnon & Fairchild, 2009). The framework of a basic mediation model is depicted in Figure 3.2 and further illustrated by Equations 1, 2, and 3 (Jie et al., 2012).



**Figure 3.2: Schematic of a simple mediation model**

$$Y = cX + \varepsilon_1, \quad (1)$$

$$M = aX + \varepsilon_2, \quad (2)$$

$$Y = c'X + bM + \varepsilon_3. \quad (3)$$

In Figure 3.2, Y is the dependent variable, X is the independent variable, and M denotes the mediating variable. Coefficient  $c$  represents the relationship between X and Y in Equation 1 (i.e., total effect of  $X \rightarrow Y$ ),  $c'$  denotes the relationship between X and Y, adjusted for the effect of M in Equation 3 (i.e., direct effect of  $X \rightarrow Y$ ), coefficient  $a$  refers to the relationship between X and M in Equation 2, and coefficient  $b$  represents the relationship between M and Y, adjusted for the effect of X in Equation 3. More specifically, the basic mediation model decomposes the total effect ( $c$ ) into two components (Fairchild & MacKinnon, 2009): the indirect effect, which is quantified as the product of  $a$  and  $b$  (i.e.,  $ab$ ), and the direct effect with the mediation effect eliminated, which is quantified as  $c'$ . That is, total effect ( $c$ ) = indirect effect ( $ab$ ) + direct effect ( $c'$ ). The numerical value of the mediation effect may be expressed in one of two ways: as either the product of  $a$  and  $b$  or as the difference among the coefficients ( $c - c'$ ).  $\varepsilon_1$ ,  $\varepsilon_2$ , and  $\varepsilon_3$  represent the residuals or the aspects of the relationship that cannot be predicted by Equation 1, 2, or 3.

Several different methods for assessing the mediation effect have been proposed. These methods fall under three categories: (1) causal steps, (2) product of coefficients, and (3) difference in coefficients (MacKinnon et al., 2002). Each of these methods involves using at least two of the equations (1, 2, and 3).

(1) *Causal steps method*. This method is outlined in the classic work of Kenny and colleagues (Baron & Kenny, 1986; Judd & Kenny, 1981; Kenny et al., 1998), and is recognized as the most widely used and cited approach to assessing the effects of mediation. To derive a conclusive result on the existence of mediation effects, four conditions must be satisfied: (a) X must be significantly related to Y (i.e.,  $H_0: c = 0$ ), (b) X must affect M (i.e.,  $H_0: a = 0$ ), (c) M must be significantly related to Y while

controlling for  $X$  (i.e.,  $H_0: b=0$ ), and (d) the direct effect of  $X$  on  $Y$  must be either significantly reduced or eliminated when  $M$  is controlled for. Kenny and colleagues further assert that *full* mediation occurs when the effect of  $X$  on  $Y$  is completely mediated by  $M$ . That is, the indirect effect,  $a \times b$ , equals total effect  $c$ , and direct effect  $c'$  equals zero (i.e.,  $H_0: c'=0$ ). Conversely, the effect of  $X$  on  $Y$  is only *partially* mediated by  $M$  when both indirect and direct effects exist (i.e.,  $H_0: |c'| < |c|$ ).

However, numerous researchers (e.g., Fairchild & McQuillin, 2010; MacKinnon et al., 2002; Zhao et al., 2010) argue that this method has several major limitations. First, the necessity of assessing the relationship between the independent variable and the outcome in the analysis of the mediating variable is questionable (i.e., the first step of the causal steps method). For example, MacKinnon and Fairchild (2009) assert that mediation effects exist even without a significant zero-order effect of  $X$  on  $Y$ . They further contend that if all three variables are observed (i.e., no latent variables) and the sign of the indirect effect ( $a \times b$ ) differs from that of the direct effect ( $c'$ ), then the total effect ( $c = ab + c'$ ) is close to zero and the  $X \rightarrow Y$  test may fail (such case is referred to as “inconsistent mediation” or “suppression” by Zhao et al., 2010). Second, several recent statistical simulation studies show that although the causal steps method produces a low Type-I error rate, it presents difficulty in detecting a mediation effect unless the effect or sample size is large (MacKinnon et al., 2002). For example, Fairchild and McQuillin (2010) state that approximately 21,000 subjects are required for the causal steps method to detect an effect with a strength of 0.8 in a full mediation model. Third, the existence of a mediation effect is logically inferred by a series of hypothesis tests and is largely subjective; thus, the causal steps method cannot explicitly provide a numerical value of the mediation effect and cannot be used to obtain the standard errors for constructing the confidence limits of the mediation effect (Fairchild & McQuillin, 2010; Preacher & Kelley, 2011).

(2) *Product of coefficients method* ( $H_0: a \times b = 0$ ). Figure 3.2 shows that the product of coefficients method involves calculating Equations 2 and 3. As Fairchild

and McQuillin (2010) point out, the rationale behind this method is that the mediation effect depends on both the extent to which the independent variable changes the mediator (i.e., coefficient  $a$ ) and the extent to which the mediator subsequently affects the dependent variable (i.e., coefficient  $b$ ). To assess the significance of the mediation effect, we divide the product of coefficients  $a$  and  $b$  by the standard error (i.e., square root of variance), and the derived value is compared with the standard normal distribution. Preacher et al. (2007) indicate that the coefficients  $a$  and  $b$  in this method are assumed asymptotically independent and normally distributed under the basic assumptions of maximum likelihood and ordinary least squares. The significance of the indirect path ( $a \times b$ ) is first calculated by the equation  $z = ab / s_{ab}$ , and then the z-score value is compared with the critical value of the appropriate standard normal distribution at a specific alpha level; this procedure is also known as the Sobel test (Baron & Kenny, 1986).

Several variants of formulas are used to calculate the standard error of the mediation effect. The most commonly used formula is that derived by Sobel (1982), who uses the multivariate delta method based on the first-order Taylor series approximation.

$$S_{ab/Sobel} = \sqrt{a^2 S_b^2 + b^2 S_a^2} \quad (4)$$

The two other commonly used versions of the standard error formula based on different assumptions are (MacKinnon et al., 2002)

$$S_{ab/Aroian} = \sqrt{a^2 S_b^2 + b^2 S_a^2 + S_a^2 S_b^2} \quad (5)$$

$$S_{ab/Goodman} = \sqrt{a^2 S_b^2 + b^2 S_a^2 - S_a^2 S_b^2} \quad (6)$$

where  $S_{ab}$  is the sampling standard error,  $S_a^2$  denotes the sampling variance of coefficient  $a$ , and  $S_b^2$  represents the sampling variance of coefficient  $b$ . Equation 5 is the second-order Taylor series approximation provided by Aroian (1944). Equation 6 is the unbiased version of the sampling standard error and is proposed by Goodman (1960). These standard errors are used in z-tests to construct 100% (1- $\alpha$ ) confidence



limits, where  $\alpha$  is the significance level for the product term  $ab$ :

$$CI_{1-\alpha} : ab \pm Z_{\alpha/2} S_{ab} \quad (7)$$

However, some scholars, such as MacKinnon et al. (2002) and Preacher et al. (2007), provide evidence that the product of coefficients method is weak and suffers from the major drawback of assuming that the product of regression coefficients  $a$  and  $b$  is normally distributed. These scholars assert that  $a$  and  $b$  are not normally distributed, but rather usually asymmetric (positively skewed) with high kurtosis. Only at a sufficiently large sample size does the product of  $a$  and  $b$  become normally distributed. As Preacher et al. (2007) note a large enough sample size in accordance with statistical standards is not easily achieved.

(c) *Difference in coefficients method* ( $H_0: c - c' = 0$ ). In the single-mediator model, the value of the mediation effect may be quantified by the reduction in the overall effect of the independent variable on the dependent variable after adjusting for the mediating variable (Fairchild & McQuillin, 2010). The difference in coefficients method indicates that the mediation effect can be assessed by obtaining the difference between coefficient  $c - c'$  and Equations 1 and 2. The difference in the coefficients is then divided by an estimate of the standard error, and the derived value is compared with the standard normal distribution (Taylor et al., 2007) to determine the significance of the mediation effect point estimate. However, this method is rarely applied in current psychological studies because of several key disadvantages. First, the method does not provide a clear generalized framework for more complicated models to assess the significance of the difference between the coefficients and more than one mediator (Fairchild & McQuillin, 2010). Second, it produces a very high Type-I error rate. Empirical findings reveal that in situations where no relationship between the mediator and the dependent variable exists, the method suggests that a mediation effect exists (MacKinnon et al., 2002). Third, numerous recent studies suggest that this method is more complicated than the product of coefficients method (Taylor et al., 2007). It also assumes normally

distributed data.

#### 3.4.3.2 *Effect size measures for mediation models*

Numerous methodologists (e.g., Baron & Kenny, 1986; Hayes, 2009; MacKinnon, 2008) deem the quantification of effect size in mediating variable models crucial and should be reported in addition to the models' statistical significance. However, the methodological literature on how the effect size of mediation effects is measured presents inconsistencies. MacKinnon (2008) summarizes seven different measurement methods that are commonly used in existing studies and asserts that none of these approaches have thus far generated particularly satisfactory results. For example, the two most widely used methods, namely,  $ab/c$  (i.e., the indirect effect-to-total effect ratio) and  $ab/c'$  (i.e., the indirect effect-to-direct effect ratio), are both criticized. The  $ab/c$  method, which can be interpreted as reflecting a proportion of the total mediation effect (Hayes, 2009), suffers from three principal drawbacks. First, it can be highly inaccurate when  $c$  is smaller than  $ab$  (i.e., yielding an effect size greater than 1) or close to zero (i.e., leading to an effect size that approaches infinity). Second, as indicated in the formula,  $c = ab + c'$ , if  $ab$  has a sign that differs from that of  $c'$ , then the  $ab/c$  value can be negative or even less than  $-1$  (Shrout & Bolger, 2002; Jie et al., 2012). Third, statistical findings show that this method requires a sample size greater than 500 to endow the model with stability (MacKinnon, 2008). Similarly,  $ab/c'$  indicates the indirect effect relative to the direct effect. Although slightly better, this method still presents two key limitations. First, it can also be highly inaccurate and may not have boundaries if  $c'$  is close to zero (Hayes, 2009; Jie et al., 2012). Second, simulation research indicates that the model under this method requires an even larger sample size (greater than 5000) for it to be stable (Preacher & Kelley, 2011).

To address the problems of effect size in current methodological literature, Preacher and Kelley (2011) suggest using kappa squared (i.e.,  $k^2$ ) to measure the effect size.  $k^2$  is defined as the proportion of the obtained indirect effect to the

maximum possible indirect effect given the constraints of the design data. It is expressed by the formula  $ab/ab_{\max}$ . The major advantages of  $k^2$  are that it is standardized (i.e., its value is unaffected by a particular scale employed in the mediation model) and insensitive to sample size (Black & Reynolds, 2013). It is also bounded by 0 and 1, with  $k^2 = 1$  indicating that the obtained indirect effect is as large as what can be potentially achieved, and  $k^2 = 0$  implying that a linear indirect effect may not exist in the mediation model. Preacher and Kelley (2011) also suggest that the benchmarks used to interpret  $k^2$  should be the same as Cohen's (1988) estimates for squared correlation coefficients (i.e.,  $r_{xy}^2$ ), with 0.01, 0.09, and 0.25 representing small, medium, and large effect sizes, respectively. To sum up, despite the advantages of the other measurements of effect size,  $k^2$  is the only method suitable for the simple mediation model (Preacher & Kelley, 2011). A comprehensive study of describing the typical value of  $k^2$  and its application in more complex mediation models should be addressed in future academic research.

#### 3.4.3.3 *Procedures for proposed hypothesis-testing*

Other extensions to mediation analysis have been proposed, in addition to those described above. As stated by MacKinnon et al. (2002) and Taylor and MacKinnon (2012), however, no single test is superior to all others in terms of Type-I error rate, statistical power (i.e., Type-II error rate), and confidence limit coverage. Given that one of the overarching goals of this research is to test the hypotheses and determine the actual role of the SSG mediator in the proposed model rather than focus on identifying the best statistical model for mediation testing, a three-step process that is based on existing studies was implemented in hypothesis testing. The process is based on an effort to achieve a compromise between Type-I and Type-II error rates and conciseness.

(1) *First-step analysis – primary test.* A refined causal inference method was used to conduct primary hypothesis testing. This method involves four procedures:

(1) The four dependent variables (i.e., affective commitment, job satisfaction, organizational identification, and turnover intention) were regressed on the independent variable (i.e., SSG quality). This procedure is intended to validate Hypothesis 1 and establish the relationship between SSG quality and the four outcome variables. (2) The mediator (i.e., perceived PCB) was regressed on the independent variable, and the coefficient  $a$  in Figure 3.2 was tested. This procedure is meant to validate Hypothesis 2 and determine the relationship between SSG quality and perceived PCB. (3) Four dependent variables were regressed on the mediator. The relationship between perceived PCB and the outcome variables that are disregarded in SSG quality was determined through this procedure (i.e., Hypothesis 3). (4) Four dependent variables were regressed on both the independent variable and the mediator. Coefficients  $b$  and  $c'$  were also tested. This procedure is designed to test Hypothesis 4, in conjunction with verifying the results of the first procedure. If coefficient  $c'$  is larger than coefficient  $c$ , the data are consistent with suppression, as previously described. If coefficient  $c'$  is smaller than coefficient  $c$  but significantly different from 0, the data are consistent with partial mediation. Conversely, if coefficient  $c'$  is smaller than coefficient  $c$  but not significantly different from 0, the data are consistent with full mediation.

The specific reasons for adopting this refined causal steps analysis are discussed as follows. As previously noted, methodologists, such as MacKinnon and colleagues, argue that the traditional causal steps approach has relatively low statistical power and accurately functions only under small sample sizes, even when strong mediation effects exist. Despite these disadvantages, the causal relationships among variables were still analyzed because the method is easy to use and widely understood; it also provides the most convincing evidence of causal effects, as well as reliable associations among variables (Shrout & Bolger, 2002). The most distinctive feature of the causal steps approach is that it is a logic-based approach and can be used to confirm the existence of a mediation effect from the perspective of logical validity. Thus, the first-step analysis of the proposed hypothesis testing is also called the

“logical test on the mediation effect.” Second, despite the relatively low statistical power of the method, it generates a minimal Type-I error rate compared with other statistics-based methods (Zhao et al., 2010).

(2) *Second-step analysis – robustness test.* Structural equation modeling (SEM) analysis was conducted as a robustness test intended for examining the results obtained from the first-step analysis and for demonstrating the good theoretical fit of the proposed research model. The purpose of this analysis is to “statistically validate the mediation effect.” As a psychological research method, SEM is commonly used as an alternative statistics-based approach to testing mediation effects (e.g., Loi et al., 2009; Schneider et al., 2005; Turnley and Feldman, 2000). Collins (2010) asserts that the major benefit of the SEM technique is that it enables the simultaneous testing of alternative causal models, thereby enabling the determination of which model best fits data and provides a good balance between Type-I error rates and statistical power.

Many researchers, such as Schneider et al. (2005) and Zhao et al. (2010), also indicate that the sampling distribution of mediation effects tends to be asymmetric, with nonzero skewness and kurtosis; thus, statistical tests based on normal distribution, such as the SEM test and the Sobel test in the next step, are only appropriate for large sample sizes. Given these features, the bootstrapping technique was implemented to improve statistical power. As one of the extensively used nonparametric resampling methods, this technique involves randomly drawing samples of size  $N$  from an original data set with replacement. That is, the same case may be included in a new bootstrap sample more than once (Taylor & MacKinnon, 2012) and any case can be redrawn within this sample (Hayes, 2009). This process should be repeated  $k$  times until the bootstrap sample size is sufficiently large for testing. This process is typically repeated at least 1000 times (Schneider et al., 2005), but a few researchers recommend conducting a repetition of at least 5000 times (e.g., Hayes, 2009). Black and Reynolds (2013) point out that the bootstrap process should exhibit no difference even after 1000 rounds of resampling.

After the bootstrap sample was constructed, three nested structural models were established to test the proposed mediation hypotheses (Loi et al., 2009; Schneider et al., 2005): (1) a nonmediation model (Model 1) with only direct paths from SSG to the dependent variables (i.e.,  $SSG \rightarrow D.V.$ ); (2) a full mediation model (Model 2) with paths from SSG to the PCB mediator and paths from the PCB mediator to the dependent variables (i.e.,  $SSG \rightarrow PCB \rightarrow D.V.$ ); and (3) a partial mediation model (Model 3), which is similar to Model 2 except that the direct path from SSG to the dependent variables is included (i.e.,  $SSG \rightarrow PCB \rightarrow D.V.$  and  $SSG \rightarrow D.V.$ ). The proposed hypotheses were tested separately, and the model fits of the three nested models were evaluated and compared to determine the best model.

(3) *Third-step analysis – test on the significance of the mediation effect and estimate of effect size.* Many researchers (e.g., Agarwal et al., 2012; MacKinnon et al., 2002) recommend a supplementary step to determine the significance of the mediation effect in mediation analyses. This step aims to assess the significance of the weakened relationship between SSG quality and the outcome variables via perceived PCB. The Sobel test (i.e., z-value) is the most widely used method for this purpose. Other methods similar to the Sobel test are available, but for large sample sizes (typically over 350), all these other tests generate similar results (Jie et al., 2012). Three commonly used analyses (i.e., the Sobel, Goodman, and Aroian tests) were conducted in this study to increase test accuracy. These methods differ primarily in terms of the calculation of sampling standard errors. Their formulas have been previously described (see section 3.4.3.2). Following the recommendations of Preacher and Kelley (2011), we employed  $k^2$  in this step to reflect the size of the mediation effect.

## 3.5 Analyses and Results

### 3.5.1 Preliminary Analyses

#### 3.5.1.1 Test on reliability

The internal reliabilities of the scales that measure all the proposed constructs in this research were calculated using SPSS 17.0 and expressed in the form of Cronbach's alpha values. As suggested by Nunnally (1967), this value should be at least 0.7. The results are shown in Table 3.1.

**Table 3.1: Reliability levels of studied variables**

Constructs	Cronbach alpha values
1. PCB (degree of importance of each obligation)	0.954
2. PCB (amount of each obligation actually received)	0.945
3. Supervisor-subordinate <i>guanxi</i> (SSG)	0.867
4. Job satisfaction	0.747
5. Intention to leave	0.929
6. Affective commitment	0.872
7. Organizational identification	0.856

Table 3.1 shows that the Cronbach's alphas for SSG, PCB, turnover intention, affective commitment, and organizational identification are all well above 0.85, indicating excellent reliability. The alpha value of job satisfaction scale is 0.747, indicating acceptable reliability.

#### 3.5.1.2 Test on common method variance

Given that all the variables are self-reported by each respondent in one questionnaire, the problem of common method variance (CMV) may be an issue in this research. Podsakoff and Organ (1986) indicate that CMV occurs if a single factor can be extracted to explain a vast majority of the total variance of data. One of the most frequently cited techniques for assessing common method bias, Harman's

single-factor test (Harman, 1967; Ngo et al., 2012; Podsakoff et al., 2003), was applied to all the questionnaire items for all the construct measures. The results of this factor analysis are shown in Table 3.2.

**Table 3.2: Assessment of common method variance**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.795	26.559	26.559	17.795	26.559	26.559
2	11.040	16.478	43.037	11.040	16.478	43.037
3	4.422	6.599	49.636	4.422	6.599	49.636
4	2.939	4.386	54.023	2.939	4.386	54.023
5	1.914	2.856	56.879	1.914	2.856	56.879
6	1.616	2.412	59.291	1.616	2.412	59.291
7	1.440	2.149	61.439	1.440	2.149	61.439

The table shows that seven distinct factors account for 61.439% of total variance, with the first factor accounting for 26.559%. No single factor was identified by unrotated exploratory factor analysis, suggesting that common method bias is not a serious problem in this research.

### 3.5.1.3 Discriminant validity

Because several of the proposed constructs are conceptually related, confirmatory factor analyses (CFAs, using AMOS 6.0) were conducted to examine the distinctiveness of the five constructs for assessing the four dependent variables (affective commitment, organizational identification, job satisfaction, and turnover intention) and the proposed mediating variable (perceived PCB). Notably, the measurement model to be tested here excludes the construct of perceived PCB. The reason is because the degree of perceived PCB in this study was assessed by adopting Turnley and Feldman's (1999) multiplicative method. This method of breach assessment contains two data sets, one is the degree of importance of each obligation and the other is the amount of each obligation actually received. Thus, it is difficult to conduct CFA if it includes a measurement model for the six factor structure. Therefore, a two-step method was implemented to test for the discriminant



validity on the rest of constructs.

Step one: The four dependent variables were combined to generate one factor (i.e., the outcome factor) and the distinction between SSG quality and the outcome was examined.

**Table 3.3: Results of confirmatory factor analysis of SSG and outcome variables**

Models	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	NFI	CFI
Null	4372.785	153	28.503				
One-factor Model	3529.476	135	26.144	0.251	0.254	0.193	0.173
<b>Two-factor Model</b>	<b>854.088</b>	<b>134</b>	<b>6.374</b>	<b>0.116</b>	<b>0.897</b>	<b>0.804</b>	<b>0.829</b>

As shown in Table 3.3, the model fit of the two-factor model (SSG quality and the outcome) was compared with that of the one-factor model, in which all the constructs are loaded on a single factor. Although the fit indices of the two-factor model are slightly lower than general accepted criteria, the results still suggest that the hypothesized two-factor model achieves a better model fit in terms of all the fit indices, with  $\chi^2/df = 6.374$ , RMSEA = 0.116, GFI = 0.897, NFI = 0.804, and CFI = 0.829. One possible reason why the model fit indices are not well may be because the data in this study is subject and outliers (e.g., individuals choose the same answer for all items) must be included in order to fully reflect participants' psychological state.

Step two: The discriminant validity of the dependent variables was evaluated.

**Table 3.4: Results of confirmatory factor analysis of dependent variables**

Models	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	NFI	CFI
Null	3876.579	146	26.552				
One-factor Model	2687.369	135	19.906	0.267	0.247	0.189	0.167
Two-factor Model	897.013	133	6.744	0.138	0.569	0.623	0.629
Three-factor Model	975.163	132	7.388	0.127	0.608	0.777	0.690
<b>Four-factor Model</b>	<b>301.542</b>	<b>129</b>	<b>2.338</b>	<b>0.053</b>	<b>0.895</b>	<b>0.927</b>	<b>0.945</b>

The results of the CFAs for the measurement model are displayed in Table 3.4.

The hypothesized four-factor model fits the data better than do the other models, with  $\chi^2/df = 2.338$ , RMSEA = 0.053, GFI = 0.895, NFI = 0.927, and CFI = 0.945. On the basis of the two sets of CFAs, we conclude that the five constructs have good discriminant validity and were therefore treated separately in subsequent analysis.

#### 3.5.1.4 Descriptive statistics

The descriptive statistics (means, standard deviations, and correlations) of all the measured variables are shown in Table 3.5.

**Table 3.5: Means, standard deviations, and correlations among study variables**

Variables	M	S.D.	1	2	3	4	5	6	7	8	9	10	
C.V.													
1. Age	1.314	0.574	1.000										
2. Education	1.526	0.577	0.344	1.000									
3. Gender	1.697	0.460	-0.115*	-0.109*	1.000								
4. Contract	1.170	0.376	0.513	0.482	-0.206	1.000							
5. Tenure	3.257	0.737	-0.093	-0.207	-0.081	-0.281	1.000						
Mediator													
6. PCB	-1.543	3.206	-0.041	-0.050	0.078	0.085	-0.268	1.000					
I.V.													
7. SSG	3.537	0.617	-0.099	-0.141*	-0.094	-0.210*	0.887	-0.410*	1.000				
D.V.													
8. Commitment	3.096	0.846	0.141	0.081	-0.088	0.130*	0.228	-0.685*	0.319*	1.000			
9. Identification	3.580	0.776	0.143	0.098	-0.041	0.151	0.201	-0.530*	0.297*	0.680*	1.000		
10. Satisfaction	3.234	0.620	0.038	0.086	-0.091	0.148	0.324	-0.724*	0.442*	0.730*	0.603*	1.000	
11. Turnover	2.892	1.072	-0.189	-0.116*	0.057	-0.298	-0.088	0.533*	-0.214*	-0.635*	-0.494*	-0.593*	1.000

*Note: N=399; \*correlation is significant at 0.05, all two-tailed tests. D.V. = dependent variable, I.V. = independent variable. Education = Educational attainment; Contract = Type of working contract; Commitment = Affective commitment; Identification = Organizational identification; Satisfaction = Job satisfaction; Turnover=Turnover intention.*

As expected, Table 3.5 shows that SSG quality is positively correlated with affective commitment ( $r = 0.319$ ,  $p < 0.05$ ), job satisfaction ( $r = 0.442$ ,  $p < 0.05$ ), and organizational identification ( $r = 0.297$ ,  $p < 0.05$ ), but negatively correlated with turnover intention ( $r = -0.214$ ,  $p < 0.05$ ) and perceived PCB ( $r = -0.414$ ,  $p < 0.05$ ). In addition, the proposed mediator, perceived PCB, is positively related to turnover intention ( $r = 0.533$ ,  $p < 0.05$ ), but negatively related to affective commitment ( $r = -$

0.685,  $p < 0.05$ ), organizational identification ( $r = -0.530$ ,  $p < 0.05$ ), and job satisfaction ( $r = -0.724$ ,  $p < 0.05$ ).

#### 3.5.1.5 Test on multicollinearity

Two preliminary checks were used to test for multicollinearity among the variables. First, the correlation coefficients of all the variables were evaluated against the maximum value of 0.80 recommended by Rockwell (1975). The largest coefficient (Table 3.5) is 0.730, representing the correlation between affective commitment and job satisfaction. Second, the variance inflation factor (VIF) method was used and the results were compared with the standard cutoff value of 10 suggested by Levin et al. (2006). The highest VIF value for all the predictor variables is 2.245. No significant multicollinearity problems occur and the data are appropriate for further analysis.

### 3.5.2 Hypotheses Testing

#### 3.5.2.1 Results of first-step analysis

Ordinary least squares (OLS) regression by SPSS 17.0 was conducted to test the hypotheses. The results of these regression analyses are shown in Table 3.6.

**Table 3.6: Regression results of the first-step analysis**

<i>Procedures</i>	<i>Variables</i>	$\beta$	<i>S.E.</i>
1) <i>D.V.</i> regressed on <i>I.V.</i>	Affective Commitment	0.442*	0.066
	Organizational Identification	0.379*	0.061
	Job Satisfaction	0.449*	0.046
	Turnover Intention	-0.377*	0.087
2) <i>M</i> regressed on <i>I.V.</i>	PCB	-2.233*	0.250
3) <i>D.V.</i> regressed on <i>M</i>	Affective Commitment	-0.173*	0.009
	Organizational identification	-0.123*	0.010
	Job Satisfaction	-0.134*	0.006
	Turnover Intention	0.171*	0.014

4) <i>D.V.</i> regressed on <i>I.V.</i> and <i>M</i>	Affective Commitment	0.058*	0.056
	PCB	-0.169*	0.010
	Organizational Identification	0.072*	0.061
	PCB	-0.120*	0.011
	Job Satisfaction	0.175*	0.038
	PCB	-0.121*	0.007
	Turnover Intention	0.009	0.082
	PCB	0.172*	0.015

Note: \* $p < 0.05$ ; *D.V.* = dependent variable, *I.V.* = independent variable, *M* = mediator, *S.E.* = standard error,  $\beta$  = unstandardized regression coefficient

Hypotheses 1a – 1d predict that SSG quality will have a positive relationship with affective commitment, organizational identification, and job satisfaction and an inverse relationship with turnover intention. The results of regressing these four dependent variables on the SSG quality in Procedure 1 in Table 3.6 indicate that the SSG quality is positively related to affective commitment ( $\beta = 0.442$ ,  $p < 0.05$ ), job satisfaction ( $\beta = 0.449$ ,  $p < 0.05$ ), and organizational identification ( $\beta = 0.379$ ,  $p < 0.05$ ), but negatively associated with turnover intention ( $\beta = -0.377$ ,  $p < 0.05$ ). Hypotheses 1a – 1d are fully supported in the primary test.

Hypothesis 2 proposes a negative relationship between SSG quality and perceived PCB. To test this hypothesis, this research regressed perceived PCB on the SSG quality in Procedure 2. Table 3.6 indicates that SSG quality is negatively related to the perceived PCB ( $\beta = -2.233$ ,  $p < 0.05$ ). Thus, Hypothesis 2 is also fully supported in the primary test.

Hypotheses 3a – 3d state that perceived PCB is negatively related to affective commitment, organizational identification, and job satisfaction, but positively related to turnover intention. To examine these hypotheses, this research regressed the four dependent variables on the mediator (see Procedure 3). The results indicate that perceived PCB is negatively associated with affective commitment ( $\beta = -0.173$ ,  $p < 0.05$ ), organizational identification ( $\beta = -0.123$ ,  $p < 0.05$ ), and job satisfaction ( $\beta = -$

0.134,  $p < 0.05$ ), but positively associated with turnover intention ( $\beta = 0.171$ ,  $p < 0.05$ ) (in Table 3.6). Hypotheses 3a – 3b are therefore fully supported in the primary test.

Hypothesis 4 predicts that perceived PCB partially mediates the relationship between SSG quality and the four outcome variables. To test Hypothesis 4, this research first regressed the dependent variables on both SSG quality and perceived PCB (i.e., Procedure 4). The results were then compared with the findings from Procedure 1 to determine whether the mediation effect exists either partially or fully. The relationship between SSG quality and affective commitment when perceived PCB is controlled for decreases from  $\beta = 0.442$  to  $\beta = 0.058$ , but the relationship remains statistically significant ( $p < 0.05$ ; Table 3.6). It should be noted that the mediated size is minute, despite its being statistically significant. However, the important thing at this initial stage is to examine what we call “mediation in logic”, rather than using a complex statistical model to test for “mediation in statistics”. As indicated by Loi et al. (2009), the causal inference method is commonly criticized for its relatively low statistical power but it is the only approach to reflect the original logics underlying the mediated effect. Thus, we draw a conclusion that perceived PCB mediates the relationship between SSG quality and affective commitment. Similarly, the results in Table 3.6 suggest that perceived PCB partially mediates the relationship between SSG quality and organizational identification (from  $\beta = 0.379$  to  $\beta = 0.072$ ,  $p < 0.05$ ) and that between SSG quality and job satisfaction (from  $\beta = 0.449$  to  $\beta = 0.175$ ,  $p < 0.05$ ). However, suppression (inconsistent mediation) occurs for turnover intention. More specifically, the relationship between SSG quality and turnover intention when perceived PCB is controlled for increase from  $\beta = -0.377$  to  $\beta = 0.009$  and becomes insignificant. As previously stated, inconsistent mediation occurs because the mediation effect ( $a \times b = -2.233 \times 0.172 = -0.384$ ) is negative for turnover intention, whereas the direct effect ( $c' = 0.009$ ) is positive. Thus, perceived PCB may not mediate the relationship between SSG quality and turnover intention. On this basis, we conclude that Hypothesis 4 is only partially supported in the first-

step analysis, and further analysis (second-step analysis) is required to assess the effect of mediation between SSG quality and turnover intention.

### 3.5.2.2 Results of second-step analysis

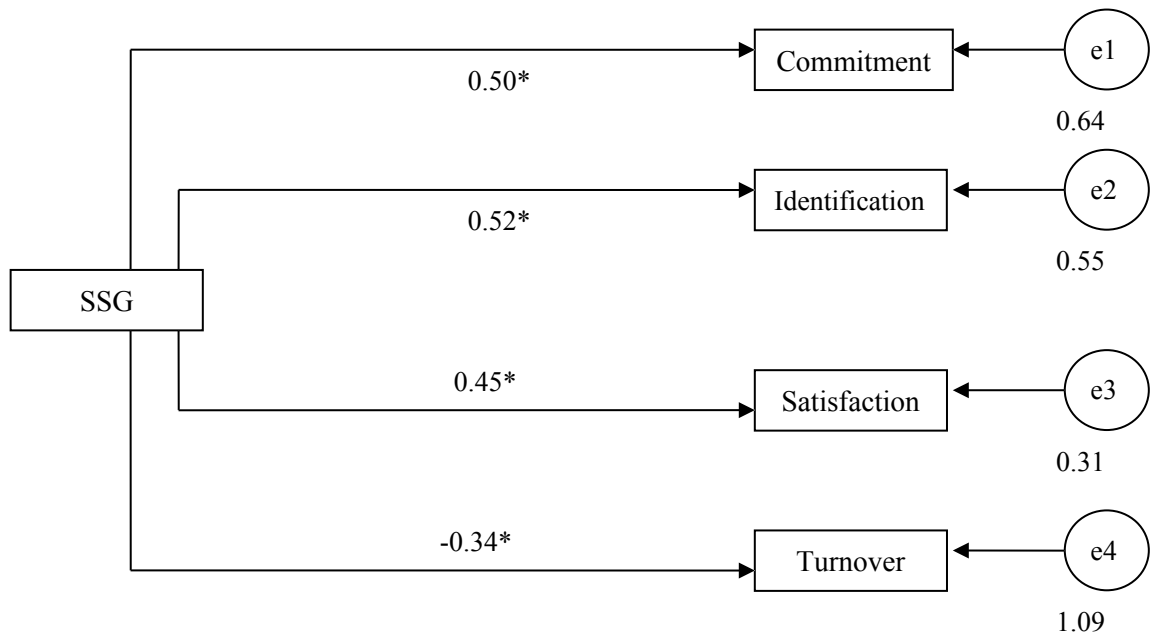
A robustness test on the SEM analysis, based on the new bootstrap sample, was conducted to demonstrate the good theoretical fit of the hypothesized model. The results are shown in Tables 3.7–3.10 and Figures 3.3–3.5.

#### (1) Results of the nonmediation model (Model 1)

**Table 3.7: Path coefficients of the nonmediation model**

<b>Model 1</b> <b>SSG → D.V.</b>	<i>Estimate (<math>\beta</math>)</i>	<i>S.E.</i>	<i>C.R.</i>	<i>P-value</i>
SSG → turnover intention	-0.34	0.0959	-3.545	0.000
SSG → affective commitment	0.50	0.0777	6.391	0.000
SSG → job satisfaction	0.45	0.0457	9.84	0.000
SSG → organizational identification	0.52	0.0785	6.677	0.0017

*Note: C.R. = critical ratio for regression weight, S.E. = standard error*



**Figure 3.3: Model 1 – path diagram of the nonmediation model**

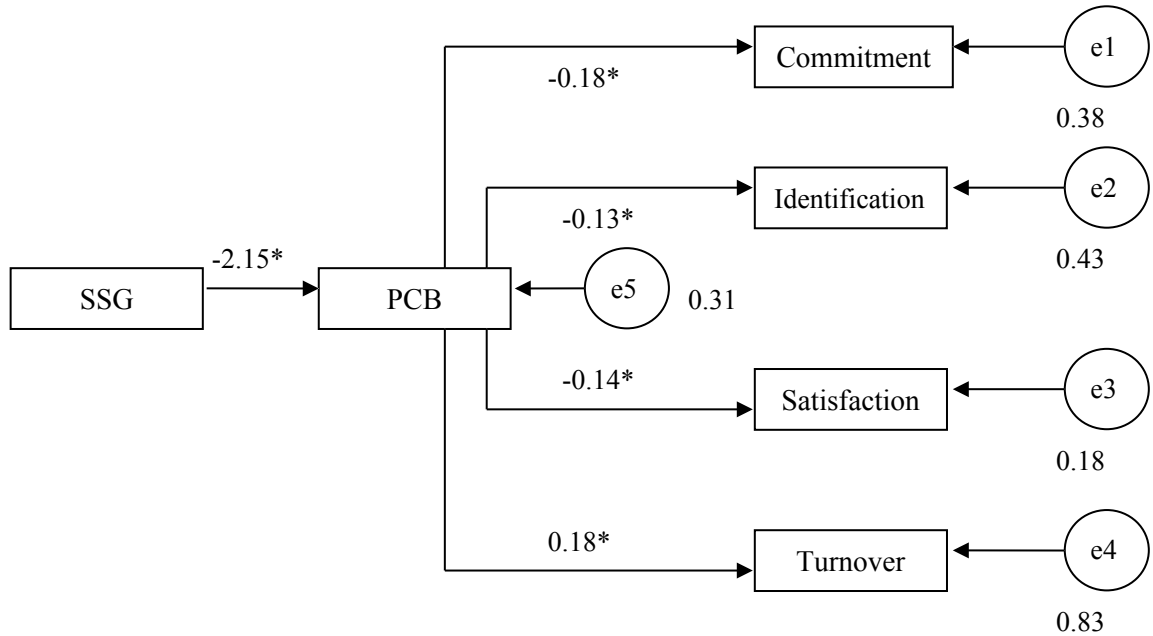
*Note: For clarity, only structural relationships are shown \* $p < 0.05$ ; Commitment = Affective commitment; Identification = Organizational identification; Satisfaction = Job satisfaction; Turnover = Turnover intention.*

(2) Results of the full mediation model (Model 2)

**Table 3.8: Path coefficients of the full mediation model**

<b>Model 2</b> <b>SSG → PCB → D.V.</b>	<i>Estimate (<math>\beta</math>)</i>	<i>S.E.</i>	<i>C.R.</i>	<i>P-value</i>
SSG → PCB	-2.15	0.2403	-8.940	0.000
PCB → turnover intention	0.18	0.0142	12.298	0.000
PCB → affective commitment	-0.18	0.0096	-18.601	0.000
PCB → job satisfaction	-0.14	0.0669	-20.921	0.000
PCB → organizational identification	-0.13	0.103	-12.327	0.000

*Note: C.R. = critical ratio for regression weight, S.E. = standard error; \* $p < 0.05$*



**Figure 3.4: Model 2 – path diagram of the full mediation model**

(3) Results of the partial mediation model (Model 3)

**Table 3.9: Path coefficients of the partial mediation model**

<b>Model 3</b> <b>SSG → PCB → D.V. and SSG → D.V.</b>	<i>Estimate (<math>\beta</math>)</i>	<i>S.E.</i>	<i>C.R.</i>	<i>P-value</i>
SSG → PCB	-2.94	0.319	-9.2213	0.000
PCB → turnover intention	0.13	0.0168	6.4041	0.000
PCB → affective commitment	-0.10	0.0132	-7.366	0.000

PCB → job satisfaction	-0.09	0.0087	-9.928	0.000
PCB → organizational identification	-0.05	0.0153	-3.137	0.000
SSG → turnover intention	-0.37	0.0859	-4.35	0.000
SSG → affective commitment	0.44	0.066	6.710	0.000
SSG → job satisfaction	0.33	0.0471	9.0457	0.000
SSG → organizational identification	0.37	0.0609	6.072	0.000

Note: C.R. = critical ratio for regression weight, S.E. = standard error; \* $p < 0.05$

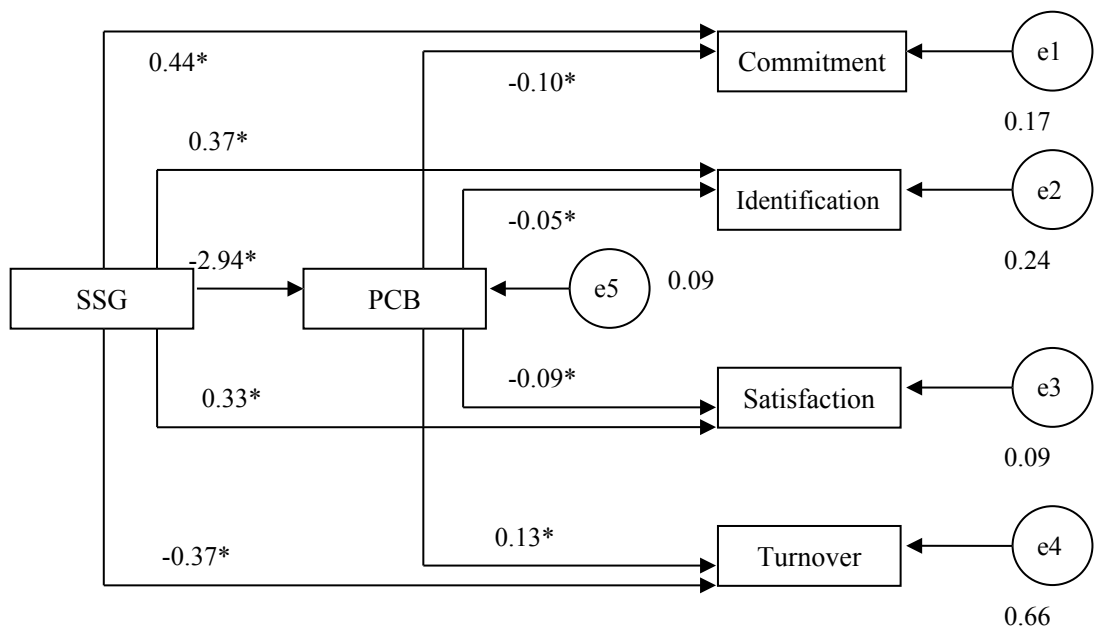


Figure 3.5: Model 3 – path diagram of the partial mediation model

Table 3.10: Comparison of the structural equation model fits

	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	NFI	CFI
Model 1 (nonmediated model)	41.268	6	6.878	0.372	0.606	0.605	0.617
Model 2 (full mediated model)	87.963	10	8.796	0.095	0.766	0.707	0.711
Model 3 (partially mediated model)	31.499	6	5.249	0.076	0.877	0.819	0.813

Note: Decision rule for the fit indices of  $\chi^2/df$  and RMSEA: the smaller the better.

As indicated previously, many researchers, such as Gerbing and Anderson (1993), recommend that individuals utilize a range of fit indices to overcome the limitations of each index. In this research, commonly used indices of  $\chi^2/df$ , RMSEA,



GFI, NFI, and CFI are reported. Generally speaking,  $\chi^2/df$  is the smaller the better and a value of less than 5 is usually considered as an acceptable model fit; RMSEA is also the smaller the better and a value of 0.08 or less indicates a well-fitted model; for GFI, NFI, and CFI, values around 0.9 are often regarded as a good model fit (Browne & Cudeck, 1993). However, it should be noted that all fit indices are subject to certain limitations, such as sample size or data quality (Lance et al., 2006). Therefore, generally accepted cutoff criteria for fit indices are mainly used as a reference rather than taking as an absolute authority.

The hypotheses were retested starting with the direct effects model of SSG  $\rightarrow$  D.V. (Model 1). The fit indices of Model 1 (Table 3.10) are as follows:  $\chi^2/df = 6.878$ ; RMSEA = 0.372; GFI = 0.606; NFI = 0.605; CFI = 0.617. In comparing with generally accepted cutoff criteria for fit indices, Model 1 has a quite poor model fit. However, as shown in Figure 3.3 and Table 3.7, the path coefficients from SSG quality to the outcome variables are all significant, with SSG quality positively correlated with affective commitment ( $\beta = 0.50$ ,  $p < 0.05$ ), job satisfaction ( $\beta = 0.45$ ,  $p < 0.05$ ), and organizational identification ( $\beta = 0.52$ ,  $p < 0.05$ ), but negatively correlated with turnover intention ( $\beta = -0.34$ ,  $p < 0.05$ ). Thus, Hypotheses 1a – 1d are also fully supported in the robustness test.

Next, the nonmediation model (Model 1) was compared with the full mediation model (Model 2), in which the relationship between SSG quality and the outcome variables is fully mediated by perceived PCB: SSG  $\rightarrow$  PCB  $\rightarrow$  D.V. Table 3.10 indicates that the fit indices of the full mediation model are superior in some aspects (GFI = 0.766; NFI = 0.707; CFI = 0.711) to those of nonmediation model except two indices ( $\chi^2/df = 8.796$ ; RMSEA = 0.095). This result may suggest that SSG quality and perceived PCB are correlated with the outcome variables, and that the outcome variables may even be more highly correlated with SSG quality than with perceived PCB. Therefore, partial mediation may exist and further analysis is required (i.e., Model 3). Moreover, despite having slightly poorer fit indices than Model 1 in  $\chi^2/df$  and RMSEA, Table 3.8 and Figure 3.4 show that the estimated structural paths from

SSG quality to perceived PCB and from the latter to the four outcome variables are all significant. That is, Model 2 clearly indicates that SSG quality is negatively related to perceived PCB ( $\beta = -2.15, p < 0.05$ ) and that perceived PCB is negatively associated with affective commitment ( $\beta = -0.18, p < 0.05$ ), job satisfaction ( $\beta = -0.14, p < 0.05$ ), and organizational identification ( $\beta = -0.13, p < 0.05$ ), but positively associated with turnover intention ( $\beta = 0.18, p < 0.05$ ). Thus, Hypothesis 2 and Hypotheses 3a – 3d are fully supported in the robustness test.

Finally, we ran the partial mediation model (Model 3), in which the paths from SSG quality to the outcome variables were incorporated (SSG  $\rightarrow$  PCB  $\rightarrow$  D.V. and SSG  $\rightarrow$  D.V). As shown in Table 3.10, the fit indices of this model are considerably better than those of the full mediation model and the nonmediation model ( $\chi^2/df = 5.249$ ; RMSEA = 0.076; GFI = 0.877; NFI = 0.819; CFI = 0.813). However, RMSEA is the only fit index that meets the general acceptance level,  $\chi^2/df$  slightly falls outside the generally decision rule of a value of less than 5, GFI is close enough to the level of 0.9, and the values of NFI and CFI are just 0.8. As explained previously, the main reason is because this study focuses on individuals' cognitive and subject research, and it is therefore necessary to include all kinds of responses, including those outliers. For example, an individual may choose "strongly disagree" for all the items. This questionnaire may be treated as an outlier and thus exclude from the final analysis in some areas of studies. However, it is necessary for this study to include this kind of data since it reflects a type of psychological state. Ignoring these outliers may lead to a bias in data analysis. Therefore, the fit indices in this study are slightly poorer than generally accepted levels. Moreover, as for NFI and CFI, Hau et al. (2004) indicate that absolute indices (or stand-alone indices), such as  $\chi^2/df$ , GFI, and RMSEA, are more stable than relative indices (or incremental indices), such as NFI and CFI. The authors argue that the indices of  $\chi^2/df$  and RMSEA are particularly valuable and should be given priority in model fit comparisons. In general, the present research suggests that the partial mediation model has a better overall model fit than does the nonmediation model and the full

mediation model. Adding the direct path from SSG quality to the outcome variables significantly improves the overall model fit. Table 3.9 and Figure 3.5 show that all the path coefficients estimated in Model 3 are significant and follow the predicted direction. Perceived PCB partially mediates the positive relationships between SSG quality and affective commitment (from  $\beta = 0.50$  to  $\beta = 0.44$ ,  $p < 0.05$ ), job satisfaction (from  $\beta = 0.45$  to  $\beta = 0.33$ ,  $p < 0.05$ ), and organizational identification (from  $\beta = 0.52$  to  $\beta = 0.37$ ,  $p < 0.05$ ), and negative relationship between SSG quality and turnover intention (from  $\beta = -0.34$  to  $\beta = -0.37$ ,  $p < 0.05$ ). Thus, Hypothesis 4 is fully supported in the robustness test.

### 3.5.2.3 Results of third-step analysis

#### (1) Results of the significance test on the mediation effects

As a supplementary step to the testing, the Sobel, Goodman, and Aroian tests were conducted to confirm the mediation effect among the constructs for both the refined casual inference method and SEM. The results are discussed as follows:

#### (a) Refined causal inference method

**Table 3.11: Results of significance test on mediation effect (refined causal inference method)**

Outcome variables	Total effect ( <i>c</i> )	Mediated effect ( <i>a</i> × <i>b</i> )	Sobel test	Goodman test	Aroian test
Affective Commitment	0.442	(-2.233 * -0.169) = 0.377	-5.358* ( <i>p</i> =0.000)	-5.380* ( <i>p</i> =0.000)	-5.337* ( <i>p</i> =0.000)
Organizational Identification	0.379	(-2.233 * -0.120) = 0.268	-5.100* ( <i>p</i> =0.000)	-5.122* ( <i>p</i> =0.000)	-5.079* ( <i>p</i> =0.000)
Job Satisfaction	0.449	(-2.233 * -0.121) = 0.270	-6.589* ( <i>p</i> =0.000)	-6.608* ( <i>p</i> =0.000)	-6.571* ( <i>p</i> =0.000)
Turnover Intention	-0.377	(-2.233 * 0.172) = -0.384	3.899* ( <i>p</i> =0.000)	3.919* ( <i>p</i> =0.000)	3.879* ( <i>p</i> =0.001)

Note: \**p* < 0.05

Table 3.11 indicates that perceived PCB significantly mediates the relationship between SSG quality and affective commitment ( $z = -5.358, -5.380, -5.337$ ;  $p < 0.05$ ), organizational identification ( $z = -5.100, -5.122, -5.079$ ;  $p < 0.05$ ), and job

satisfaction ( $z = -6.589, -6.608, -6.571$ ;  $p < 0.05$ ). Moreover, the results of the first- and second-step analyses indicate that inconsistent mediation exists for the turnover intention variable in the OLS regression analysis, but not in the SEM analysis. Given that the OLS regression minimizes the sum of the squared residuals, it is this statistical bias of regression analysis that may cause the inconsistency. This bias is also one of the main reasons for the causal inference approach having a relatively low statistical power in simulation analysis (MacKinnon et al., 2002). However, as indicated previously, the first-step analysis in this research is intended to reveal the underlying logical relationships in the mediation model (this is the main advantage of the causal inference approach), rather than statistically test the mediation effect (as in the second-step analysis). The results in Table 3.11 also show that the effect of mediation for turnover intention is significant ( $z = 3.899, 3.919, 3.879$ ;  $p < 0.05$ ). Thus, Hypothesis 4 can therefore be considered fully supported.

(b) SEM analysis

**Table 3.12: Results of the significance test on the full mediation effect (SEM)**

Outcome variables	Total effect (c)	Mediated effect ( $a \times b$ )	Sobel test	Goodman test	Aroian test
Affective Commitment	0.50	$(-2.15 * -0.18) = 0.387$	1.311 ( $p=0.101$ )	1.322 ( $p=0.105$ )	1.301 ( $p=0.108$ )
Organizational Identification	0.52	$(-2.15 * -0.13) = 0.280$	1.249 ( $p=0.106$ )	1.256 ( $p=0.105$ )	1.241 ( $p=0.107$ )
Job Satisfaction	0.45	$(-2.15 * -0.14) = 0.301$	1.036 ( $p=0.150$ )	1.042 ( $p=0.148$ )	1.030 ( $p=0.151$ )
Turnover Intention	-0.34	$(-2.15 * 0.18) = -0.387$	-1.267 ( $p=0.103$ )	-1.274 ( $p=0.101$ )	-1.260 ( $p=0.104$ )

Table 3.12 illustrates that the full mediation effect of perceived PCB on the relationship between SSG quality and affective commitment ( $p = 0.101, 0.105, 0.108$ ), organizational identification ( $p = 0.106, 0.105, 0.107$ ), job satisfaction ( $p = 0.150, 0.148, 0.151$ ), and turnover intention ( $p = 0.103, 0.101, 0.104$ ) are all nonsignificant. Thus perceived PCB does not fully mediate the relationship between perceived PCB and the outcome variables.

**Table 3.13: Results of the significance test on the partial mediation effect (SEM)**

Outcome variables	Total effect (c)	Mediated effect ( $a \times b$ )	Sobel test	Goodman test	Aroian test
Affective Commitment	0.50	$(-2.94 * -0.10) = 0.294$	5.852* ( $p=0.000$ )	5.873* ( $p=0.000$ )	5.832* ( $p=0.000$ )
Organizational Identification	0.52	$(-2.94 * -0.05) = 0.147$	8.843* ( $p=0.000$ )	8.847* ( $p=0.000$ )	8.839* ( $p=0.000$ )
Job Satisfaction	0.45	$(-2.94 * -0.09) = 0.265$	8.225* ( $p=0.000$ )	8.233* ( $p=0.000$ )	8.217* ( $p=0.000$ )
Turnover Intention	-0.34	$(-2.94 * 0.13) = -0.382$	-7.310* ( $p=0.000$ )	-7.325* ( $p=0.000$ )	-7.259* ( $p=0.000$ )

Note: \* $p < 0.05$

Table 3.13 indicates that perceived PCB significantly mediates affective commitment ( $z = 5.852, 5.873, 5.832; p < 0.05$ ), organizational identification ( $z = 8.843, 8.847, 8.839; p < 0.05$ ), job satisfaction ( $z = 8.225, 8.233, 8.217; p < 0.05$ ), and turnover intention ( $z = -7.310, -7.325, -7.259; p < 0.05$ ). The results confirm the hypothesis that perceived PCB mediates the relationship between SSG quality and the outcome variables. The partial mediation effect derived in the second-step analysis is statistically significant, further supporting Hypothesis 4.

## (2) Results on the effect sizes of the partial mediation model

Following the procedures described by Preacher and Kelley (2011), we derived an additional estimate of the size of the partial mediation effect (using the SEM results as bases).

**Table 3.14: Results of the effect sizes of the partial mediation model**

Outcome variables	$k^2 = ab/ab_{max}$	95% C.I. (LL)	95% C.I. (UL)
Affective Commitment	0.216	0.183	0.249
Organizational identification	0.209	0.195	0.223
Job Satisfaction	0.235	0.177	0.293
Turnover Intention	0.247	0.209	0.285

Note:  $ab$  = estimated mediation effect; all confidence intervals generated with bias correlated

and accelerated bootstrapping ( $N = 1000$ )

As can be seen in Table 3.14,  $k^2$  reveals a more than medium-sized mediation effect on affective commitment ( $k^2 = 0.216$ , 95% C.I.: 0.183, 0.249), organizational identification ( $k^2 = 0.209$ , 95% C.I.: 0.195, 0.223), job satisfaction ( $k^2 = 0.235$ , 95% C.I.: 0.177, 0.293), and turnover intention ( $k^2 = 0.247$ , 95% C.I.: 0.209, 0.285). The benchmarks for interpreting  $k^2$  are Cohen's (1988) estimates of squared correlation coefficients (he defines small, medium, and large effect sizes as 0.01, 0.09, and 0.25), as recommended by Preacher and Kelley (2011).

## 3.6 Discussion of Model 2

### 3.6.1 Summary of hypotheses results

The hypotheses in Model 2 are summarized in Table 3.15. All the four hypotheses are fully supported.

**Table 3.15: Summary of hypotheses for Model 2**

Hypotheses	Details	Results
Hypothesis 1	SSG quality, as perceived by employees, is positively associated with (a) affective commitment, (b) organizational identification, (c) job satisfaction, but negatively associated with (d) turnover intention.	Fully Supported Table 3.6 and Table 3.7
Hypothesis 2	SSG quality, as perceived by employees, is negatively associated with employees' perception of PCB.	Fully Supported Table 3.6 and Table 3.8
Hypothesis 3	Employees' perception of PCB is negatively associated with (a) affective commitment, (b) organizational identification, (c) job satisfaction, but positively associated with (d) turnover intention.	Fully Supported Table 3.6 and Table 3.9
Hypothesis 4	Employees' perception of PCB partially mediates the relationship between SSG quality and affective commitment, organizational identification, job satisfaction, and turnover intention.	Fully Supported Table 3.7 and Table 3.9

*Note: The results of the first-step analysis only partly support Hypothesis 4; however, in line with the explanation in Section 3.5.2.3, this hypothesis is considered as fully supported.*

### 3.6.2 SSG quality and work attitudes

Model 2 primarily aims to investigate the link between SSG quality and its

effects on various attitudinal variables. The findings meet this objective. As perceived by employees in the studied banking call center, SSG quality is associated with job satisfaction, affective commitment, organizational identification, and turnover intention (Tables 3.5–3.7). Specifically, employees in high-quality *guanxi* with their supervisors tend to be satisfied with their jobs ( $\rho = 0.442, p < 0.05$ ), and show strong signs of affective commitment ( $\rho = 0.319, p < 0.05$ ), possess high organizational identification ( $\rho = 0.297, p < 0.05$ ), and exhibit low level of turnover intention ( $\rho = -0.214, p < 0.05$ ). These findings support our Hypotheses 1a – 1d, confirming most extant empirical research that the quality of SSG can effectively reduce the tendency of an employee to leave an organization (Cheung et al., 2009) and enhance their job satisfaction, affective commitment, and organizational identification (Chang, 2014; Cheung & Wu, 2011; Zhang & Chen, 2013). The findings in this study also provide evidence to support the assertion of Huang et al. (2010) that high SSG quality can reinforce the perception of call center employees towards the support from their supervisors and investment in them. This perception enables employees to function efficiently in their stressful work environments and prevents them from experiencing job burnout. Jobs in banking call centers are viewed as repetitive, problem-oriented, and restrictive, with a high control level and process standards. Despite these negative perceptions, SSG quality remains important in shaping employees' work attitudes.

### **3.6.3 SSG quality and perceived PCB**

Model 2 also intends to examine the link between SSG quality and the perceived PCB in the context of Chinese banking call centers. The results reveal that SSG quality is negatively associated with perceived PCB ( $\rho = -0.410, p < 0.05$ ), thus supporting Hypothesis 2. According to Blau's (1964) social exchange theory, mutual trust and respect play a vital role in the *guanxi* between supervisors and subordinates. From a subordinate perspective, mutual trust reflects the willingness of subordinates to cooperate and the stability of their intention to maintain the

psychological bond, which enables them to enjoy long-term, high-quality exchange relationships with their supervisors (Han et al., 2011). Although supervisor reciprocity may occur at an indefinite period in the future, the implicit trust shown by both parties encourages subordinates to believe that their supervisors will eventually fulfill their obligations, and thus maintain the *guanxi* exchange. Such mutually trusting *guanxi* tend to become unstable and even break down if subordinates perceive an organization to have failed in fulfilling its obligations (Han et al., 2011). Cheung (2005) explained that once the basis of mutual trust becomes unstable or no longer exists, interpersonal hostility may occur, thereby diminishing SSG quality. Loi et al. (2009) further indicates that employees with low SSG quality tend to limit their mutual role expectations, prompting them to perform only formal job requirements, avoid their obligations to one another, and only hold the basic expectations from their supervisors. Thus, a perceived breach of psychological contract tends to exist. Supervisors may regard these employees as out-group members and consequently offer them minimal material and emotional support as well as assign them less challenging jobs. Such treatment may, in turn, lead to even lower the levels of intrinsic motivation among out-group members and further reduce SSG quality.

#### **3.6.4 Perceived PCB and work attitudes**

Another objective of Model 2 is to determine the effect of perceived PCB on job satisfaction, affective commitment, organizational identification, and turnover intention. Although this area has attracted considerable empirical research, limited studies focus on Chinese banking call centers. The main reason is the difficulty of obtaining access to Chinese banks, especially state-owned commercial banks. The results from my study (Table 3.5 – 3.7) indicate that employees who deem an organization to have failed in fulfilling its obligations or promises are significantly less likely to be satisfied with their jobs ( $\rho = -0.724$ ,  $p < 0.05$ ), show weaker signs of affective commitment ( $\rho = -0.685$ ,  $p < 0.05$ ), possess lower organizational



identification ( $\rho = -0.530$ ,  $p < 0.05$ ), and are more likely to exhibit a high turnover intention ( $\rho = 0.533$ ,  $p < 0.05$ ) than employees who hold opposite view. Thus, Hypotheses 3a – 3d are fully supported. These results are relatively comparable with several recent meta-analyses (e.g., Bal et al., 2008; Zhao et al., 2007). Despite the differences in sample size and research setting, these studies demonstrate that similar correlations exist between perceived PCB and job satisfaction (average  $\rho = -0.44$ ), affective commitment (average  $\rho = -0.41$ ), organizational identification (average  $\rho = -0.39$ ), and turnover intention (average  $\rho = 0.32$ ). The correlations between perceived PCB and the four outcome variables are markedly higher than the average correlation in existing studies for the same variable. From the perspective of attitudinal responses, employees in banking call centers react more sensitively than employees in other industries do when they experience PCB. In particular, the correlation between perceived PCB and job satisfaction in this study is as high as  $-0.724$  ( $p < 0.05$ ), which is well above the average correlation of  $-0.44$  obtained in previous studies. That is, the perception that the organization failed to fulfill its promises is strongly associated with the significant decrease in employee' job satisfaction. As mentioned before, employees in Chinese banking call centers are often regarded as “emotional workers” (Huang et al., 2012), who are typically university graduates and young females, and most of them hold temporary employment contracts. Under high levels of emotional pressure and work-related strain, these young people tend to experience emotional exhaustion and low levels of intrinsic motivation, thus curtailing their interest in their jobs and affecting the development of the organization (Bellou, 2009). Moreover, a recent empirical study conducted by Zhang (2011) in Shanghai also indicates that young government civil servants tend to be impulsive and perceptive under the traditional Chinese command-and-control management system. This observation holds in stated-owned enterprises (Yao, 2010), including stated-owned commercial banks. These findings may help to explain why employees in the studied banking call center tend to be reactive toward perceived PCB in terms of work attitude.

### **3.6.5 Perceived PCB as a mediator**

Consistent with initial expectations, the results of this study indicate that perceived PCB partially mediates the effect of SSG quality on job satisfaction, affective commitment, turnover intention, and organizational identification (Figure 3.5 and Table 3.10). The results of Sobel, Goodman, and Aroian tests further confirm the partial mediation effect of perceived PCB (Table 3.13) in the SSG quality – employee work attitudes relationship. These four attitudinal variables have a larger than medium-sized mediation effect (Table 3.14), as indicated by the benchmarks recommended by Preacher and Kelley (2011). Thus, Hypothesis 4 is fully supported in this study. Although the results reveal that the perceived breach significantly influences the quality of the social exchange relationship, less negative responses are associated with the relationships that individuals have previously determined as high quality. Specifically, the relationship between SSG quality and outcome variables remains significant although a breach is perceived. This finding has two plausible explanations. First, developing a high SSG quality requires a substantial time investment, and in such established relationship, the pattern of interactions between employees and their supervisors is well formed, reinforced, and routinized. Consequently, although reneging may bring perceived breach, employees are less likely to perceive that supervisors are intentionally reneging on the promises they have made. In an established SSG, employees and their supervisors tend to communicate effectively and frequently. In case of a perceived breach, the latter may provide explanations, thus dismissing the negative responses of the former. Second, employees with high SSG quality tend to interpret the perceived breach as a natural lapse that will be rectified over the course of time. That is, they tend to believe that the fulfillment of promises is only delayed rather than broken (Dulac et al., 2008). For example, an employee with high SSG quality may think “I believe that my supervisor will fulfill his promises to me at some point in the future although I have not received any assurance at the moment.”

The findings of Model 2 suggest that *guanxi* between subordinates and their supervisors is important in Chinese banking call centers, high SSG quality can be effectively translated into the positive attitudinal outcomes of employees. Consequently, these positive attitudes can minimize the undesirable negative effects of perceived breach of psychological contract, if any.

## **Chapter Four – Study 2: The Moderating Role of Supervisor-Subordinate Guanxi in the Relationship between Perceived Psychological Contract Breach and Attitudinal Outcomes**

### **4.1 Introduction**

In Model 2 the results indicated that perceived breach of psychological contract significantly influences the work attitudes of employees in the studied Chinese banking call center. However, prior research (e.g., Morrison & Robinson, 1997) asserts that employees in high-quality social exchange relationships tend to engage in cognitive sensemaking process through which they attempt to attach meaning to events. This biased interpretation may minimize negative employment experience and result in less intense negative responses toward breach. In addition, scholars (e.g., Cohen & Willis, 1985; Dulac et al., 2008) suggest that available or perceived to be available social support from supervisors may buffer negative responses resulting from perceived breach. Indeed, the interpretation of psychological contract breach is highly influenced by the beliefs of an employee in interpersonal treatment (e.g., adequate explanation, respect, consideration, and communication) in the workplace. Thus, a research question arises on the role of interpersonal relationship between employees and their supervisors in employee responses toward perceived PCB.

Model 2 developed a mediated model in which the perceived PCB among employees in a Chinese banking call center partially mediates the relationship between SSG quality and its effects on affective commitment, job satisfaction, organizational identification, and turnover intention. Model 3 is the last of the three research studies that make up this DBA thesis. As an extension of Model 2, this final project constructs a moderation model to explore the moderating role of SSG in the relationship between perceived PCB and its effects on affective commitment,

organizational identification, job satisfaction, and turnover intention.

The present study fills the gap in understanding the relationship between perceived PCB and employee work attitudes by introducing the moderating role of SSG quality as studies on the role and outcome of SSG quality in perceived PCB are limited.

## **4.2 Research Design and Hypotheses**

### **4.2.1. SSG as a moderator**

Employee may have received sufficient resources and support from their supervisors to establish high-quality SSG but may still find that specific promised resources or support are not fulfilled. Therefore, although many studies have confirmed that perceived breach of psychological contract is reduced in a high social exchange relationship (Dulac et al., 2008), it is possible that perceived breach may still arise. This argument is consistent with the assertion of Lewicki et al. (1998) that *“relationships are multifaceted, therefore enabling parties to hold simultaneously different views of each other – views that may be accurate, but, nonetheless, inconsistent among them”* (1998: 442). Thus, we investigate the way employees react to the opposing view that they are in a high-quality relationship with their supervisors and yet still perceive that their psychological contracts have been breached to some degree.

Morrison and Robinson (1997) indicate that employees engage in a cognitive sensemaking process when they encounter a discrepancy between what they have been promised and what they perceive to have received. This discrepancy leads to perceived breach and stimulates employees to seek information, explanation, and interpretation. Consequently, these employees are prompted to perform active thinking. In the sensemaking process, employee response to perceived breach is likely affected by the perception of the quality of SSG (Lu et al., 2015). If the

relationship between employees and their supervisors is perceived to be of high quality, future transactions in this relationship will tend to be treated fairly, regardless of reality. Dulac and colleagues (2008) explain that high-quality social exchange relationships tend to engender cognitive bias. This bias results from the need of employees to balance psychologically the costs (e.g., laborious efforts one must make) in the relationships with their attitudes toward their exchange counterparties. Specifically, employees tend to engender psychological strain to perceive the evidence that they have made a wrong choice of exchange counterparty because of the costs involved in high-quality social exchange relationships. Thus, employees with high SSG quality may seek out information, explanation, or interpretation to conclude that, although perceived breach has occurred, the supervisors have been fair in the exchange.

Furthermore, attribution theory posits that observers try to make sense of the behavior of an actor by searching for the cause for that behavior (Lu et al., 2015). In this process, actions consistent with past behaviors are usually attributed to a dispositional cause (i.e., caused by the actor), whereas actions inconsistent with past behaviors are often assigned to an external cause (i.e., caused by the context or situation). Thus, in accordance with attribution theory, employees with high SSG quality tend to search for external causes for the failure of their supervisors to fulfill promises, and thus reject intentional renegeing.

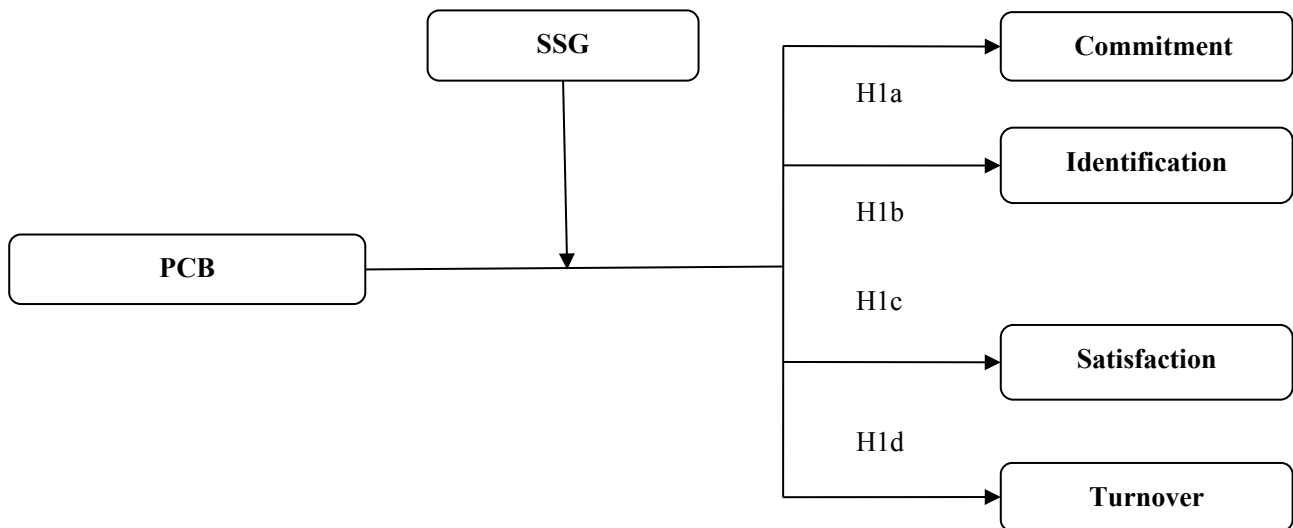
Social support from supervisors may also play a role in employee responses to perceived breach. Buffer hypothesis (Cohen & Willis, 1985) asserts that perceived social support from others could cushion the threat to self-esteem and unpleasant feelings in times of dealing with stressful situations. Thus, employees in high quality relationships with their supervisors are readily eager to receive certain levels of social support necessary to cope with the stress of experiencing perceived breach of psychological contract.

Finally, communication by supervisors with high-quality SSG is typically

assigned with higher credibility and have a more pervasive impact on attitudes and behaviors of employees than communication by supervisors with low-quality SSG (Henderson, Dulac, and Linden, 2006, cited by Lu et al., 2015).

#### 4.2.2. Hypothesis

In this study, SSG quality serves as an important interpersonal mechanism in employee sensemaking following perceived breach. Cognitive bias may lead employees to conclude that the exchange relationship is still fair, despite the unfulfilled promises. Additionally, interactions between employees and their supervisors in high-quality social exchange relationships typically reinforce positive affects that strengthen the relationship bond. Thus, employees with high-quality SSG should consider the behavior of their supervisors to be inconsistent with past behavior and conclude that the supervisors did not intentionally break promises regardless of actuality. The hypothesis formulated in this study is described in the following figure.



**Figure 4.1: Hypothesized moderating model of SSG**

*Note: PCB = Perceived psychological contract breach, SSG = Supervisor-subordinate guanxi, Commitment = Affective commitment, Identification = Organizational identification, Satisfaction = Job satisfaction, and Turnover = Turnover intention.*

Based on the model in Figure 4.1 and the previous discussion, the following

hypothesis is presented:

H1: SSG quality moderates the relationship between perceived PCB and (a) affective commitment, (b) organizational identification, (c) job satisfaction, and (d) turnover intention.

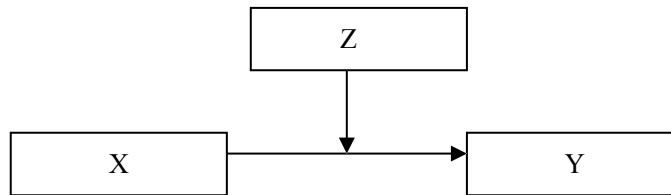
## 4.3 Analytical Method

### 4.3.1 Differences between moderation and mediation

Fairchild and McQuillin (2010) indicate that investigating moderators or mediators can lend insights into why, how, and for whom the hypothesized relation holds. However, these two concepts have different implications. By definition, a moderator is a third variable (Z) that changes the relationship between an independent variable (X) and a dependent variable (Y), thereby affecting the strength of the relation between X and Y. Moderation effects are typically referred to as “statistical interactions” and intend to illustrate the context under which the relation between X and Y holds. By contrast, mediator variable (M), as described in section 3.4.3, is a third variable that explains how or why X and Y are related. In a basic mediation model, X predicts M which in turn predicts Y. Thus, a mediator can be regarded as intermediate in the relation between X and Y.

### 4.3.2 Simple moderation model

The framework of a simple moderation model is illustrated in Figure 4.2 and estimated with the following regression equation:



**Figure 4.2: Basic moderation model**

$$Y = b_{01} + b_{X1}X + b_{Z1}Z + b_{XZ1}XZ + e_{Y1} \quad (1)$$



In Figure 4.2, Y is the dependent variable, X is the independent variable, and Z is the moderator variable. In Equation 1,  $b_{x1}$  is the coefficient relating X to Y when  $Z = 0$ ,  $b_{z1}$  is the coefficient relating Z to Y when  $X = 0$ ,  $b_{01}$  is the intercept in the equation, and  $e_{y1}$  is the residual in the equation. The regression coefficient for the interaction term,  $b_{xz1}$ , provides an estimate of the moderation effect. Specifically, if  $b_{xz1}$  is statistically different from zero, a significant moderation exists in the X-Y relation in the data.

Further, moderation is tested by adopting the  $R^2$  change test (denoted  $R^2\Delta$ ), which is distributed as an  $F$ -statistic. The  $F$ -statistic for the  $R^2\Delta$  can be computed with the following equation:

$$F = \frac{(R_2^2 - R_1^2) / (k_2 - k_1)}{(1 - R_2^2) / (N - k_2 - 1)} \quad (2)$$

In Equation 2,  $(R_2^2 - R_1^2) / (k_2 - k_1)$  quantifies the variance accounted for by the XZ interaction, and  $(1 - R_2^2) / (N - k_2 - 1)$  quantifies the variance accounted for in the model without the interaction term.

However, the problem of multicollinearity often arises in moderation analysis (Magill, 2010). This issue is due to correlations among variables. The implication of this problem is that standard errors of the regression coefficients become inflated, thus reducing the power to detect the moderating variables effects. To address this problem, X and Z variables can be centered at the mean. That is, the mean from each score is subtracted (e.g.,  $X_{\text{mean}} - X_i$ ) to produce a sample mean of zero and regression coefficients, which are then interpreted as the impact of the predictor on the Y slope with other predictors held constant at its mean (Aiken & West, 1991, cited by Magill, 2010).

In moderation analysis, the relation between X and Y should be analyzed at different values of the moderator to determine the direction of the moderation relationship. Fairchild and MacKinnon (2009) assert that plotting the interaction can interpret the interaction effects and offer an easy way to investigate changes in the relation between X and Y across the levels of Z. Aiken and West (1991) recommend that the conditional effects on X are computed at varying Z values (i.e.  $\pm 1$  standard deviation from the mean of Z) and the slopes of the regression line are plotted. These values represent a range in which most observed data should fall in a normal distribution.

Finally, Fairchild and McQuillin (2010) indicate that reporting the effect size of a moderation model is of practical importance in interpreting analysis results. The effect size can indicate non-significant findings and enhance the understanding of the practical utility of moderating effects. They recommend using partial  $r^2$  to measure the effect size and suggest that the benchmarks used to interpret partial  $r^2$  are 0.02, 0.13, and 0.26, which represent small, medium, and large effect sizes, respectively.

#### **4.3.3 Analytical procedures**

Data for this study are the same as those in Model 2. As the present study is an extension of the last project, testing the reliability, discriminant validity, and common method variance is unnecessary. We used hierarchical regression analysis to test our moderated hypothesis. Cheung and Wu (2011) indicate that hierarchical regression analysis enables the comparison between alternative models with and without the interaction term (i.e., XZ). That is, a moderating effect exists if the interaction term contributes significantly to the variance explained in the dependent variable (i.e., Y) over the main effects of the independent variable (i.e., X). Thus, a three-step analysis is used in this study. In the first step, we entered age, educational attainment, gender, type of working contract, and tenure to minimize the spurious effects of these demographic variables. In the second step, we entered the main

effects of perceived PCB and SSG quality. In the final step, we entered the interaction term of  $PCB \times SSG$ . As recommended by Aiken and West (1991), the variables in the interaction term were centered to reduce multicollinearity.

## 4.4 Analyses and Results

To test the hypothesis, this study entered the five control variables in the first step, SSG and PCB in the second step, and the interaction of PCB with SSG in the third step. Table 4.1 summarized the results, which are further explained in Figure 4.3 - 4.6.

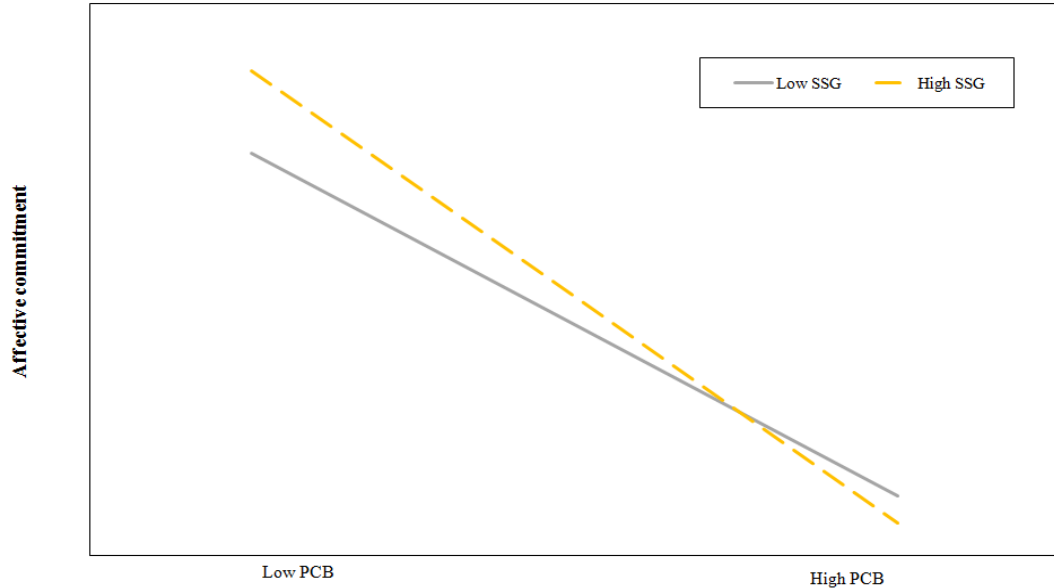
**Table 4.1: Hierarchical regression analysis for testing the moderating role of SSG**

Variables	Commitment	Identification	Satisfaction	Turnover
	$\beta$	$\beta$	$\beta$	$\beta$
<b>Step 1</b>				
Age	0.104	0.118	-0.042	-0.420
Education	-0.201	0.003	-0.006	0.501
Gender	-0.074	-0.27	-0.073	-0.001
Contract	0.136*	0.150*	0.217*	-0.311*
Tenure	-0.060	-0.097	-0.560	-0.005
Adjusted $R^2$	0.028	0.030	0.030	0.082
<b>Step 2</b>				
PCB	-0.647*	-0.479*	-0.622*	0.482*
SSG	0.450*	0.080*	0.198*	-0.071*
Adjusted $R^2$	0.468	0.287	0.561	0.344
$R^2\Delta$	0.437	0.258	0.519	0.262
<b>Step 3</b>				
$PCB \times SSG$	-0.089*	-0.108*	-0.097*	-0.041*
Adjusted $R^2$	0.474	0.296	0.561	0.344
$R^2\Delta$	0.071	0.102	0.009	0.002
F Change	5.130*	5.607*	7.483*	0.892*
Effect size	0.117	0.122	0.141	0.112

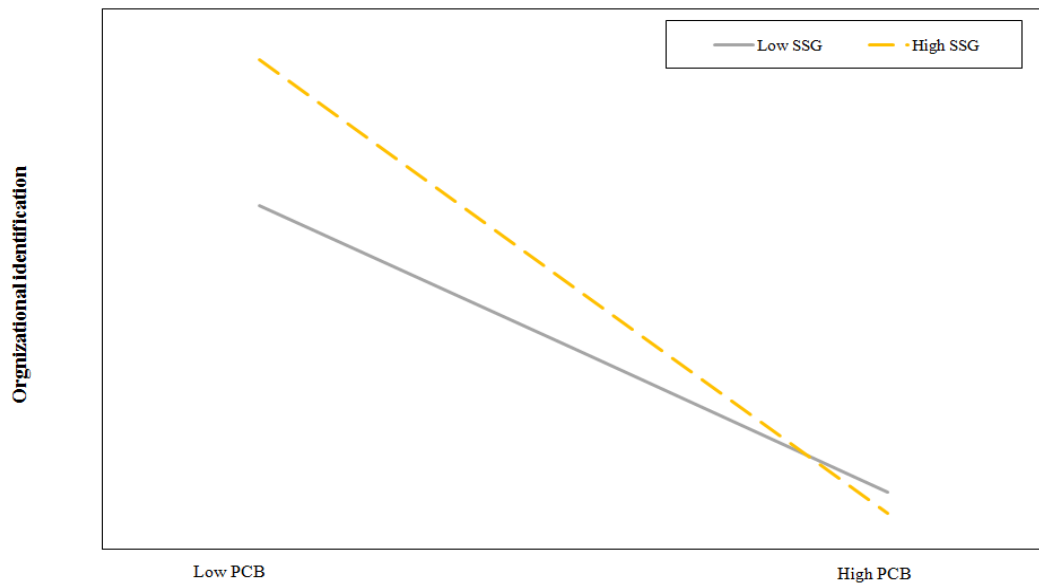
Note:  $N=399$ ; \* $p < 0.05$ ; Education = Educational attainment; Contract = Type of working contract; Commitment = Affective commitment; Identification = Organizational identification; Satisfaction = Job satisfaction; Turnover=Turnover intention; Effect size is measured by partial

$r^2$  in accordance with the suggestion of Fairchild and McQuillin (2010).

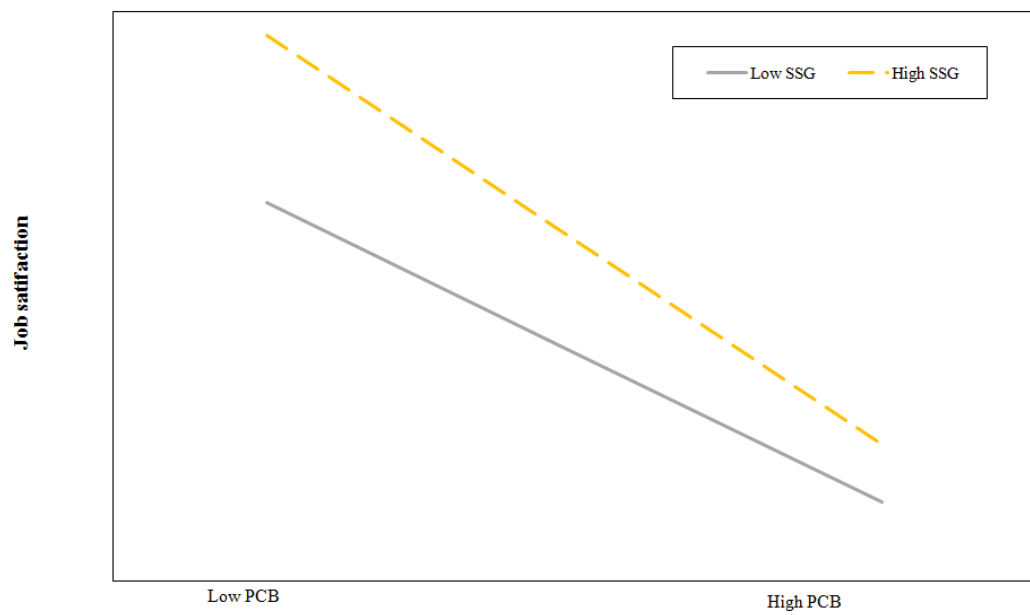
Table 4.1 shows that when PCB, SSG, and the demographic variables are controlled for, the interaction of PCB and SSG have significant moderating effects on affective commitment ( $\beta = -0.089$ ,  $R^2\Delta = 0.071$ ,  $p < 0.05$ ), organizational identification ( $\beta = -0.108$ ,  $R^2\Delta = 0.102$ ,  $p < 0.05$ ), job satisfaction ( $\beta = -0.097$ ,  $R^2\Delta = 0.009$ ,  $p < 0.05$ ), and turnover intention ( $\beta = -0.041$ ,  $R^2\Delta = 0.002$ ,  $p < 0.05$ ). Moreover, the findings reveal close to a medium-sized moderation effect on affective commitment (partial  $r^2 = 0.117$ ), organizational identification (partial  $r^2 = 0.122$ ), and turnover intention (partial  $r^2 = 0.112$ ), but more than a medium-sized moderation effect on job satisfaction (partial  $r^2 = 0.141$ ). These results are compared according to the benchmarks recommended by Fairchild and McQuillin (2010).



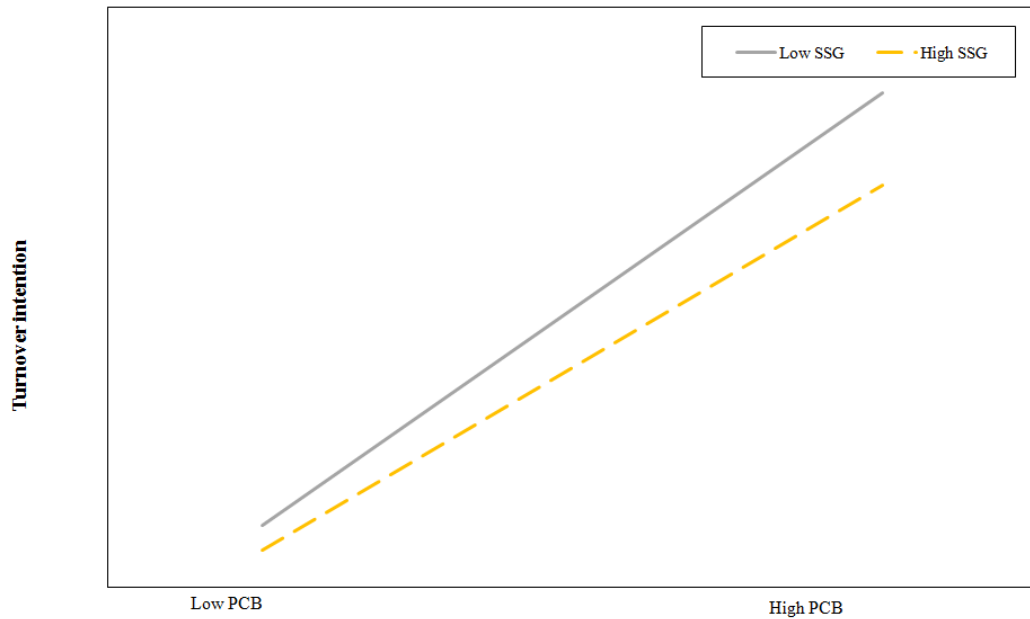
**Figure 4.3: Interaction effect between PCB and SSG on affective commitment**



**Figure 4.4: Interaction effect between PCB and SSG on organizational identification**



**Figure 4.5: Interaction effect between PCB and SSG on job satisfaction**



**Figure 4.6: Interaction effect between PCB and SSG on turnover intention**

To add to the interpretations, we define high SSG and low SSG as  $+1/-1$  standard deviation from the mean, respectively, and then establish the regression equations of PCB with affective commitment, organizational identification, job satisfaction, and turnover intention, respectively. Figure 4.3 shows that perceived PCB is negatively related to affective commitment (i.e., slope of the SSG quality is negative). Employees with high SSG quality demonstrate higher affective commitment as the degree of PCB increases than those with low SSG quality. Thus, Hypothesis 1a is fully supported. Along similar lines, perceived PCB is negatively correlated with organizational identification (Figure 4.4) and job satisfaction (Figure 4.5). Employees who perceive higher SSG quality exhibit fewer negative responses toward organizational identification and job satisfaction, as the degree of PCB increases than those who perceive low SSG quality. Thus, Hypotheses 1b and 1c are fully supported. Finally, Figure 4.6 indicates that perceived PCB is positively related to turnover intention (i.e., slope of the SSG quality is positive) and demonstrates that the relationship between perceived PCB and turnover intention is weak for employees who perceive high SSG quality. This finding supports Hypothesis 1d.

## 4.5 Discussion of Model 3

### 4.5.1. Summary of the hypothesis results

Table 4.2 summarizes the results for the hypotheses in Model 3. The hypotheses are all fully supported.

**Table 4.2: Summary of hypotheses for Model 3**

Hypothesis	Details	Results
Hypothesis 1	SSG quality moderates the relationship between perceived PCB and (a) affective commitment, (b) organizational identification, (c) job satisfaction, and (d) turnover intention.	Fully Supported Table 4.1 Figures 4.3 - 4.6

### 4.5.2. Moderating role of SSG quality

As a competing model of Model 2, the study aims to examine the role of SSG quality in the relationship between perceived PCB and employee's work attitudes in the studied Chinese banking call center. The study results achieve the study objective and satisfy the initial expectations. Through hierarchical regression analysis (Table 4.2), this study finds evidence that once psychological contract breach has been perceived, the quality of SSG experienced can become an important moderator that can influence the attitudinal responses of employees, that is, more than a medium-sized moderation effect on job satisfaction and close to a medium-sized moderation effect for turnover intention, affective commitment, and organizational identification. Specifically, employees with high SSG quality respond with less negative work attitudes following perceived breach than employees with low-quality SSG.

The hypothesized interaction and its associated results supplement extant studies by supporting the premise that a high SSG relationship can influence the interpretation or attribution of Chinese banking call center employees in favor of their supervisors. First, a high-quality relationship between subordinates and their supervisors may facilitate ongoing communication (Morrison & Robinson, 1997). Thus, this relationship may minimize the possible "false-consensus bias", in which

employees assume that they share the same perceptions. Second, this study indicates the need to consider that biased sensemaking processes may be triggered when employees encounter perceived breach. That is, employees with high SSG quality tend to view PCB in less negative terms than it may actually merit (Dulac et al., 2008). Finally, high SSG quality may provide the actual or perceived level of social support necessary for employees to buffer potentially unfavorable cognitions when perceived promises have not been fulfilled.

Notably, Figures 4.3 and 4.4 suggest that the negative relationship between PCB and affective commitment and organizational identification may be strong under high SSG quality if the degree of perceived breach is too high. This outcome may be explained by the betrayal framework. According to Restubog et al. (2010), betrayal is a serious violation of the norms of a social exchange relationship and may cause employees to engage in revenge-seeking behaviors on whoever betrayed them. In social exchange relationships, individual expectations usually comprise rules, which serve as building blocks for trust in relationships and maintain mental ties between two parties. Prior studies show that betrayal in close relationships (e.g., friends, direct reports, and parents) often results in the most serious consequences (Sias et al., 2004). Employees usually expect their supervisors to provide them with adequate resources and support. As high SSG quality involves a series of high-quality social exchanges resulting in mutual trust and respect, failure on the part of the supervisor to prevent instances of breach may be seen as an act of betrayal. As a result, employees with high-quality SSG may overreact and exhibit stronger negative responses than those with low-quality SSG.

In sum, the current study highlights the importance of building high-quality *guanxi* relationships between employees and their supervisors in the context of the Chinese banking call center. High-quality relationships lead to favorable employee responses when employees encounter the cognition of breach. Moreover, this study also brings to light the need to further investigate the role of SSG quality in the PCB – employee attitude relationship when perceived breach is high.





# Chapter Five – Conclusions

## 5.1 Introduction

This thesis mainly investigates and models the nature of the psychological contract and its breaches within the unresearched context of the Chinese banking call center industry, and uses the results to arrive at recommendations for improving management–employee relationships in these and similar situations. The thesis also focuses on addressing the question on how employee work attitudes remain positive when a negative experience arises (i.e., PCB) in a high-quality social exchange relationship (i.e., SSG).

The study commences with an investigation of the contents and the structure of the psychological contracts in a call center of a state-owned commercial bank in China (i.e., Model 1). Building upon this foundation, the study then identifies psychological contract breach (PCB) as a mediator and investigates its mediating role in the relationships between SSG quality and employee work outcomes, namely, affective commitment, organizational identification, job satisfaction, and turnover intention (i.e., Model 2). Based on Model 2, this study constructs a moderation model, in which the moderating effect of SSG quality in the relationship between PCB and employee work outcomes is examined (i.e., Model 3).

Four main sections are presented in this final chapter. The first section restates and discusses the main findings in relation to the three aims of this thesis (see Section 1.4). The next section presents further research recommendations and possible research limitations. The third section discusses the main contributions of this work to existing theories. The last section offers recommendations for managerial practice.

## 5.2 Review of the Main Results

### 5.2.1 Model 1: Contents and structures of psychological contracts

This thesis aims to empirically investigate the contents and the structure of psychological contracts of Chinese banking call center employees. The discussion related to this aim is found in Chapter 2. The hypotheses and the results of their testing are summarized below:

**Table 5.1: Review of hypotheses (Model 1)**

Hypotheses	Details	Results
Hypothesis 1	The psychological contract of Chinese banking call center employees is composed of organization and employee obligations, in which both revolve around three dimensions: interpersonal responsibility, development responsibility and normal responsibility.	Fully Supported Table 2.6+Table 2.8+ Table 2.14+ Table 2.15
Hypothesis 2	Different psychological contract patterns exist among employees, with gender is significantly different in each of dimensions of the psychological contract.	limited Support Table 2.18
Hypothesis 3	Different psychological contract patterns exist among employees, with age is significantly different in each of dimensions of the psychological contract.	Unsupported
Hypothesis 4	Different psychological contract patterns exist among employees, with educational attainment is significantly different in each of dimensions of the psychological contract.	Unsupported
Hypothesis 5	Different psychological contract patterns exist among employees, with type of employment contract is significantly different in each of dimensions of the psychological contract.	limited Support Table 2.18
Hypothesis 6	Different psychological contract patterns exist among employees, with tenure is significantly different in each of dimensions of the psychological contract.	Unsupported

The content of psychological contracts addresses two factors (Conway & Briner, 2005). One factor is the kind of promise that the two parties are willing to exchange and the other is how this exchange occurs. Given that no existing study has examined the contents of the psychological contracts of banking call center employees in China, the constructs are initially developed through measurement scales adopted from comparable studies on other industries in China. Then, the

constructs are modified in line with the results of interviews conducted with seven pairs of human resource managers and employees from different Chinese banking call centers. The items are irrelevant to the context of banking call centers are removed.

By carrying out an exploratory factor analysis and a confirmatory factor analysis based on the split samples, we obtain a model of the psychological contracts of Chinese banking call center employees. The model features three dimensions: interpersonal, normal and development responsibilities within the employees' perception of the organization's obligations to them and their own obligations to the organization. The model is described below.

(1) Organizational obligations. Factor one is composed of the following nine items and accounts for 25.45% of the item variance: "respect," "friendly working environment," "care," "trust", "cooperation," "harmonious relationship," "positive feedback," "honesty," and "guidance." These items are mainly related to interpersonal communication and interpersonal care. Thus, we label this factor as "interpersonal responsibility of the organization." The second accounts for 19.56% of the item variance and is composed of six items: "challenging job," "training opportunities," "career advancement," "working autonomy," "put skills to use," and "promotion opportunities." These items focus on the provision of personal development support to the employees. Thus, we label this factor as "development responsibility of the organization." Finally, factor three is composed of the following four items and accounts for 13.41% of the item variance: "job security," "rewards according to performance," "competitive wages," and "benefits." These items are mainly concerned with material and monetary guarantees. Thus, we label this factor as "normal responsibility of the organization."

(2) Employee obligations. The first factor is composed of the following six items and accounts for 30.38% of the item variance: "personal sacrifices," "volunteer to develop necessary skills," "volunteer to do extra job," "provide ideas to the

organization,” “commit to the success of the organization,” and “advocate organization’s public image.” These obligations of employees can be viewed as relating to the development of the organization. Thus, we label this factor as “development responsibility of the employee.” Factor two is composed of three items and accounts for 20.35% of the item variance: “get along with colleagues,” “share information with colleagues,” and “cooperate with supervisors.” These items emphasize the obligation of employees to create good interpersonal relationships. Thus, we label this factor as “interpersonal responsibility of the employee.” Finally, factor three is also composed of three items and accounts for 13.93% of the item variance: “loyalty,” “notify the organization before quitting,” and “accept internal transfer.” These items are mainly related to compliance with the organizational code of conduct. Thus, we label this factor as “normal responsibility of the employee.”

We conclude that employees in the studied Chinese banking call center consider interpersonal responsibility as the most important organizational obligation. Employees think that the organization should treat them honestly, care for their personal life, and offer them a harmonious working environment. In turn, these employees consider the development of the organization as their primary responsibility. The results suggest that the psychological contract of banking call center employees is different from call center employees in other sectors in China. For example, Wei (2004) conducts an empirical study on telecom call centers in China and indicates that employees are willing to offer their loyalty and diligence in exchange for monetary rewards and promotion opportunities from the organization.

General employees in the Chinese banking call center industry are typically temporary and receive poor treatment in terms of social position and material rewards. Why then do they consider the development of the organization as their primary responsibility? The possible reason may be attributed to the fact that employees in this industry are highly educated compared with employees in other sectors. Thus, they are likely to be influenced by Chinese traditional culture (i.e., Confucianism) in the educational process, which strongly emphasizes tolerance,

responsibility, and benevolence. Thus, such employees are likely to hold societal values above their own.

Variations in the perceptions of employees on the desirable psychological contract based on age, gender, educational attainment, type of employment contract, and tenure were also examined in an additional analysis in Model 1. The results indicate that limited variations are based only on gender and type of employment contract. Gender is only significant at the interpersonal responsibility of employee obligations as perceived by employees. This may be because females are emotionally expressive and have strong interpersonal skills (Bellou, 2009). The type of employment is only significant at the interpersonal and normal responsibility of employee obligation as perceived by employees. This may be a result of permanent employees in Chinese banking call centers holding better quality jobs, followed by higher income, more interesting tasks, and empowerment compared with temporary employees. Thus, permanent employees tend to comply with the rules and regulations of the organization and exert effort to maintain a harmonious working environment.

Employees perceive the five demographic variables as insignificant to organization obligations because of the following reasons. First, a commercial bank is traditionally recognized by most Chinese as a stable and decent workplace. Thus, employees tend to compromise and accept whatever the organization offers them to ensure their job security. Second, employees may be reluctant to disclose their inmost thoughts about the organization under the influence of Chinese Confucian traditions of saving others' *mianzi* (i.e., similar to saving face) and the Chinese present bureaucratic organization system. Finally, the majority of employees in Chinese banking call centers are young, female, highly educated and holding temporary contracts. Thus, they are likely to form similar psychological contract patterns.

Moreover, the other relative characteristics of the industry may also influence

the results. For example, the banking call center remains as a relatively new phenomenon in China. Thus, only a few employees have had long tenures in this particular job. Banking call centers in China place an upper age limit of 30 years as a requirement for those seeking an ordinary post.

### 5.2.2 Model 2: The mediating role of perceived PCB

Model 2 fulfills the second research aim of this thesis. The model set up in the project develops and significantly expands that of Model 1 thus allowing for the examination of the relationship between SSG quality and employee work attitudes as well as constructing a mediated model in which perceived PCB mediates the relationship. The discussion related to Model 2 is found in Chapter 3. The results for the hypotheses in this chapter are summarized below.

**Table 5.2: Review of hypotheses (Model 2)**

Hypotheses	Details	Results
Hypothesis 1	SSG quality, as perceived by employees, is positively associated with (a) affective commitment, (b) organizational identification, (c) job satisfaction, but negatively associated with (d) turnover intention.	Fully Supported Table 3.6 and Table 3.7
Hypothesis 2	SSG quality, as perceived by employees, is negatively associated with employees' perception of PCB.	Fully Supported Table 3.6 and Table 3.8
Hypothesis 3	Employees' perception of PCB is negatively associated with (a) affective commitment, (b) organizational identification, (c) job satisfaction, but positively associated with (d) turnover intention.	Fully Supported Table 3.6 and Table 3.9
Hypothesis 4	Employees' perception of PCB partially mediates the relationship between SSG quality and affective commitment, organizational identification, job satisfaction, and turnover intention.	Fully Supported Table 3.7 and Table 3.9

Given the inconsistent definition of SSG in the recent literatures, this present thesis redefines this indigenous Chinese construct to suit the special situation of the banking call center industry in China. The links between SSG quality and employee work attitudes are investigated first, namely, job satisfaction, organizational identification, affective commitment, and turnover intention. The four attitudinal

variables are chosen from the literature and interviews with many HR managers of banking call centers in China indicated that the variables are the most relevant to the Chinese context and are deemed most important to the organization. Meanwhile, SSG is found to be negatively related to turnover intention, and positively related to job satisfaction, affective commitment, and organizational identification.

The link between SSG quality and perceived PCB as well as the relationship between perceived PCB and employee work attitudes are then examined. The results meet the expectations revealing that SSG quality is negatively associated with perceived PCB. Moreover, employees who experience PCB tend to be less satisfied with their job, show weaker sign of affective commitment, possess lower organizational identification, and exhibit a higher turnover intention than employees who hold the opposite view.

Thus, we design a three-step process to test for the mediating role of perceived PCB. The first stage of the hypothesis testing uses ordinary least squares regression analysis, which posits that perceived PCB partially mediates the relationship between SSG quality and the employee work attitudes of affective commitment, organizational identification, job satisfaction and turnover intention. The hypothesis is only partially supported, and the turnover intention is the main exception. Bootstrap approach and structural equation modeling analysis are employed in the second step analysis of robustness test. The results support the hypothesis indicating that perceived PCB is an effective partial mediator in the SSG quality–employee work attitude relationship. The third level analysis of significance test on the mediation effects also supports partial mediation by perceived PCB. The results of the Sobel, Goodman, and Aroian tests are significant and reveal a larger than medium-sized, as defined by Cohen (1988), mediated effect on job satisfaction, affective commitment, organizational identification, and turnover intention. When PCB is perceived, the quality of *guanxi* with their supervisors that employees have previously perceived to exist may influence the sensemaking process. Less negative attitudinal responses are associated with the cognitions of a breach in relationships



that individuals have previously determined as being of high quality.

### 5.2.3 Model 3: Moderating role of SSG quality

Model 3 corresponds to the third research aim of this thesis. Model 3 is based on Model 2 and aims to develop a moderation model in the context of Chinese banking call center in order to investigate the moderating role of SSG quality in the relationship between perceived PCB and employee work attitudes. The discussion related to Model 3 is found in Chapter 4. The results for the hypothesis in this chapter are summarized below.

**Table 5.3: Review of hypotheses (Model 3)**

Hypothesis	Details	Results
Hypothesis 1	SSG quality moderates the relationship between perceived PCB and (a) affective commitment, (b) organizational identification, (c) job satisfaction, and (d) turnover intention.	Fully Supported Table 4.1 Figures 4.3 - 4.6

Through a hierarchical regression analysis, the findings of this project fully support our proposed moderation model, which argued that the quality of SSG moderates the relationship between perceived PCB and employee work attitudes, with more than medium-sized moderation effects on turnover intention, affective commitment, and organizational identification as well as a close to a medium-sized moderation effect on job satisfaction. In other words, employees have previously perceived to have high-quality *guanxi* with their supervisors tend to exhibit less negative attitudinal responses when the breach is perceived than employees with low-quality SSG.

## 5.3 Research Limitations and Future Research Directions

### 5.3.1 Limitations of the research

This study has four major limitations. The first limitation is related to the data,

which were collected at two points in time from the same call center but with different participants. Sample 1 was collected at Time 1 for the first project, and Sample 2 was collected at Time 2 for the rest of the two studies. Thus, this thesis missed an opportunity to compare the same individual's psychological contract pattern at different times. This deficiency can be attributed to the change of research plan after Model 1. Moreover, perceived PCB, SSG quality, and the four outcome variables were all measured from self-reports through a cross-sectional questionnaire at the same point in time. Thus, the results may suffer from the possibility of common method variance. However, data were collected in this manner to overcome some of the difficulties in gaining access to the Chinese banking industry, especially in state-owned commercial banks, to conduct large-scale research. The author initially considered using the diary method as a way to collect quantitative and qualitative data, capture immediate emotional responses, and reflect the dynamic adjustment in psychological contracts (Conway & Briner, 2005). However, access restrictions prevented this. Nevertheless, Harman's single-factor test and confirmatory factor analysis were conducted for all construct measures, in order to assess the common method variance associated with the cross-section questionnaire method. The results indicate that common method variance does not significantly impair the ability to adequately test our hypotheses.

Second, call center employees are commonly known as emotional workers with high work-related strain levels. However, this thesis did not control for the effects of individual mood in the analysis, which may have influenced the suggested outcomes. Dulac et al. (2008) pointed out that employees with high negative affect, and thus exhibit relatively stable dispositions comprised of aversive mood states (e.g., guilt, contempt, and fear), tend to experience perceived breach of their psychological contract. Moreover, employees with high negative affect may be less likely to perceive their *guanxi* with their supervisors as being of high quality.

Third, this study was conducted in a call center of a Big Four state-owned commercial bank in China. Thus, the results of this thesis may not represent the

common phenomena in the Chinese banking call center industry. However, the banking industry is dominated by the Big Four state-owned commercial banks in China, and the number of employees accounts for over 85% of the industry. Moreover, business priorities of the Big Four differ. For example, Bank of China is strong in the international finance industry and the Industrial and Commercial Bank of China has strengths in corporate business services. However, their ownership structures, corporate governance, organizational structures, corporate culture, recruitment criteria, internal management practices, and staff composition similar. Thus, the findings from this thesis may be widely used in other major banking call centers in China. The results were presented to several HR managers in different banking call centers in the Big Four. They all support this assertion. Moreover, the results derived from this study may also be used in most nationwide joint-stock commercial banks in China because their major shareholder is the Chinese government, either at the central or at the local level. Thus they are likely to have the deep imprint of Chinese stated-owned enterprise culture.

Finally, a few fit indices are slightly lower than the general acceptance level. It However, the current study focuses on the cognitive and perception of an individual. Therefore, including all kinds of responses from participants, such as those outliers is necessary. An individual may choose the same answer for the whole of the questionnaire. Such data may be excluded from an analysis in some areas of studies. However, this study has to consider this situation, because it can reflect a certain type of psychological state. Ignoring this may lead to a bias in data analysis. Thus, some scholars assert that reporting a high model fit in psychological studies is not easy given the volatile nature of psychological data from samples (e.g., Li, 2006).

### **5.3.2 Recommendations for future research**

Future studies could focus on four main areas. The first recommendation is related to data collection. Longitudinal research design may be used in the future. This approach involves using and collecting data from different periods of time with

the same individual as well as improves the validity of data and allows for picking up dynamic changes in the psychological contract of an individual. Moreover, future research may attempt to adopt the diary method to collect data despite the problem of gaining access in the current study, where it is possible. This method has several advantages over the cross-sectional questionnaire method or other methods (Conway & Briner, 2005). First, it can capture events or factors almost immediately or in a short time. Second, the diary method can capture “small events.” Such small events at work may have minor effects on the attitudes of employees toward their job, but these may be important factors that influence the emotions or behavior of employees. Third, this method can examine the psychological contract at the within-person level (i.e., how an individual perceives his/her psychological contract), which differs from the between-person level for the cross-sectional survey method. Finally, the results from the diary method are reliable and precise because repeated measurements are applied in the process.

The second recommendation has to do with the fact that a psychological contract is a social exchange process, which involves individual and organizational levels as well as incorporates the perceptions of both parties. Given the dilemma of the agency problem, no clear counterpart to the exchange (i.e., who or what should act as representatives of the organization) has been found. Therefore, the current study measures construct based on individual perceptions. Section 3.2.3 states that the five cardinal *guanxi* (called *wu-lun*) in Confucianism are emphasized in the Chinese culture. However, *guanxi* has weakened or has transformed in the modern Chinese society. Nevertheless, the sensitivity to social roles and the implied obligations to superiors remain strong. Chen and Francesco (2000) point out that these roles and obligations account for why the Chinese society continues to be characterized by the rule of man more than by the rule of regulations and laws despite recent attempts of the Chinese central government to establish a complete legal system. Supervisors, especially direct supervisors, in such a cultural setting are probably the most important counterparties to the exchange for an individual. This

means that employees tend to take *guanxi* with their supervisors more seriously than that with the organization. Thus, one avenue for future research may be to incorporate the perceptions of supervisors to the exchange relationship in similar studies in the Chinese context. In doing so, we can examine the psychological contract in a more comprehensive manner.

The third focus for future research has to do with the fact that perceived PCB and affecting work attitudes have been reported by many studies to have a direct or indirect, negative impact on the employee's behaviors (George, 2009). Thus, future research could focus on examining the relationship between perceived PCB and employees' behavioral responses in a similar context as well as investigate the role of SSG quality in such relationships. The exit, voice, loyalty, and neglect (EVLN) model could be given special attention, because it may be meaningful in the context of the Chinese banking call center industry. The model is originally from Hirschman (1970) and further developed by Rusbult et al. (1988). Four employee-level variables are included in the EVLN model. (1) Exit. It refers to the most serious behavioral response toward perceived PCB, that is, the employee leaving the organization. (2) Voice. It refers to a situation where the employee may communicate displeasure with the manager, suggest solutions, take active actions to solve the problem (Rusbult et al., 1988), or show a tendency to find organizational faults from many different aspects (George, 2009). (3) Loyalty. It refers to the employee's response to a breach by decreasing the efforts exerted into performing organizational citizenship or extra-role behaviors, showing reduced willingness to give private and public support to the organization, and displaying a reduction in civic virtue (Chaudhry et al., 2009). (4) Neglect. It is also a passive behavior toward the breach, where employees engage in "lax and disregardful" behaviors, intentionally neglecting their in-role responsibilities. Examples of neglect include behaviors of lateness and high error rates (Chaudhry et al., 2009). The most serious problem faced by the call center is high turnover rate, and call center employees are commonly known as emotional workers and likely to experience job burnout. However, empirical studies indicate

that Chinese employees are less sensitive to perceived injustice than those of other nationalities, and they are less likely to react negatively to issues of organizational inequity as long as they have established high-quality *guanxi* with their supervisors. Therefore, exploring the relationship between perceived PCB and the EVLN responses of Chinese banking call center employees as well as investigating the role of SSG quality in these relationships as a mediator or a moderator are important research directions for future studies.

Finally, the results from the current study lead to a question: How long could high-quality SSG decrease the cognitions of perceived breach and buffer its potential to elicit negative responses? These positive effects in the employment relationship may be a flash in the pan because employees with high-quality SSG may be prone to overlook or search for external causes for the failure of their supervisors to fulfill promises during the initial phases of employment relationships. However, this buffering effect may be unsustainable over a certain period of time and over multiple events of unfulfilled promises. Recurring unfulfilled promises may eventually lead to the global perceptions of PCB, which diminishes the basis of mutual trust and respect with the exchange counterparty to the extent that the quality of SSG is harmed. Therefore, future research may consider the buffering effects of SSG quality in perceived PCB–employee outcome relationship and how perceived PCB may alter the quality and nature of SSG.

## **5.4 Theoretical Contributions**

The current study has four important theoretical contributions. The first is related to data collection. As stated earlier, the current study was only conducted in one of the Big Four state-owned commercial bank's call center owing to the difficulty in obtaining an access. However, empirical studies on employees in the Chinese banking industry, especially large-scale ones, are limited. The main reason is because banks in China are usually state-owned enterprises, which are commonly

regarded as conservative, bureaucratic, and largely inefficient. Thus, in obtaining permission to conduct a large-scale empirical study on these banks, especially in the Big Four, one must pass through a great deal of red tape. Managers in these banks are also reluctant to disclose data to the public to prevent any possible negative influence, which may damage the brand image of the bank and affect their future promotions. Thus, the present research contributes to the literature by obtaining access to collecting a large-scale data for the empirical study.

The second contribution is related to the contents and the structure of the psychological contract. This study represents one of the first attempts to conduct a comprehensive empirical study in this field in the context of the Chinese banking call center industry. Departing from the well-established measurement scales of Li (2006), the present study developed a 35-item scale to measure the psychological contract of employees within the industry. The structure of psychological contracts is consistent with the three-dimensional structure of Li (2006). However, employees in Chinese banking call centers have shown some unique characteristics that make them distinct from employees in other industries in China and from those indicated in the Western literature. For example, Chinese banking call center employees are more relational than transactional in nature. They consider setting up a good interpersonal communication network and providing interpersonal care as the top priorities of the employer. Thus, they are willing to dedicate additional effort and assume additional roles to develop the organization.

Moreover, the present study contributes to the theory by further examining the influence of individual demographic characteristics on the perspectives of employees toward a desirable psychological contract structure. Chinese call center employees are often characterized as young, female, and highly educated; hold temporary working contracts; and have limited promotion opportunities and career advancement. The results indicate that Chinese call center employees with different ages, tenures, genders, educational attainment, and types of working contract are almost indifferent in the structure of their psychological contracts, with the exception

of gender and type of working contract, which only have limited variations in some parts of employee obligation to the organization.

Third, the present study contributes to the theory by redefining the concept of SSG in the context of the Chinese banking call center industry as a dyadic, multifaceted, instrumental, and sentimental tie developed by both work-related and non-work related interactions, and has potential to facilitate favor exchange between the tied parties. This study argues that existing definition of SSG suffers from three major shortcomings in the context of the Chinese banking call center industry as explained in Chapter 3. (1) Existing definition of SSG does not capture the true meaning of *guanxi* by defining the concept as non-work related interactions. In developing *guanxi* with supervisors, banking call center employees in China not only engage in social *guanxi* that may help them establish personal, non-work related ties with their supervisors, but more importantly build work *guanxi* to perform their work roles. (2) Existing definition of SSG only addresses part of *guanxi* expressively or instrumentally. However, *guanxi* falls into a mixed category and contains respect, instrumental exchange, expressive ties, personal-life inclusion, and trust. (3) Existing definition of SSG only focuses on interpersonal-level relationship and ignores group-level relationships. At a group level, when employees perceive that their supervisors systematically allocate material and resources to other group members based on interpersonal *guanxi*, their perceptions of the fairness of the allocation procedures tend to decrease, thereby affecting their *guanxi* with the supervisors.

Finally, the present study contributes to the literature by integrating social exchange and psychological contract theory to advance the present understanding of how the perceived breach of psychological contract affects high-quality SSG as well as how SSG quality may influence the perceptions of and reactions to unfulfilled promises in the psychological contract in the context of the Chinese banking call center industry. My findings reveal that the perceived PCB significantly affects the quality of the social exchange relationship, and less negative responses are associated with the relationships that Chinese banking call center employees have previously



determined as high quality. Moreover, the quality of SSG also significantly buffers negative reactions to the perceptions of unfulfilled promises. Overall, the central message that emerges from the current study is that high-quality SSG leads to favorable employee attitudes (at least in the short-run) in the context of Chinese banking call centers, not because such a relationship is free from problems (i.e., perceived PCB), but because *guanxi* with their supervisors influences how employees respond when they encounter such problems.

## 5.5 Implications for Managerial Practice

This study has three important practical implications. First, among the three dimensions of employee obligations to the organization, development responsibility is regarded as the most important dimension. Specifically, employees are willing to commit to the development of the organization despite a certain level of hostility exists with the organization, because of the Confucian heritage, which considers the society as more important than individuals, and highlights that a person is not primarily an individual, rather a member of a family. In other words, family culture is the core of Chinese tradition, which values the act of sacrificing the interest of oneself for the family's well-being. Thus, managers in the same or similar contexts to that of the study are advised to use the incentive of teams to cultivate the "family spirit" of their employees, because it is closely related to the Confucian values of collectivism and harmony (Truong & Quang, 2007).

Two of the practices that may be used as a reference in the studied banking call center explained here. (1) To maximize the work site and lower the cost, workstations for CSRs in Chinese call centers are flexible and vary according to the schedule. The studied call center rewards the top three best performing teams (each team has around 12 CSRs) every month to enjoy fixed workstations for the following three months and offers each team specific budget to design their workstations (e.g., add team slogans and pictures of family and friends). (2) The call center holds a small award ceremony for these best performing teams. Family members or friends

of the top performing teams are invited to the call center to visit and attend the ceremony.

Second, the findings reveal that the interpersonal responsibility of the organization is rated by employees as the most important aspect of organizational obligations. Within this dimension, treating employees honestly and caring for their personal life and growth are the primary responsibilities of the organization. However, normal responsibility is rated as the least important aspect of organizational obligations. The results may shed light on two often overlooked problems in the Chinese banking call center industry. (1) In talks with many HR managers in different Chinese banking call centers, a broad consensus among them is that low pay is the most critical factor that affects the decision of employees on whether to stay or to leave an organization. The managers believe that monetary and material rewards are the most effective tools to encourage their employees. However, this study's findings indicate that raising income alone is not an effective way to reduce the turnover rate of employees. HR managers in the studied banking call center once told the author that their turnover rate was almost the same even after they had increased the average wage of the temporary employees by nearly 20%. (2) Given the hierarchical culture embedded in Chinese society, banking call centers in China rely heavily on the use of legitimate authority to achieve performance goals. Employees are performance-oriented and have limited communication channels with the organization. Thus, a degree of information asymmetry between employees and the organization likely exists. Therefore, we suggest that aside from paying attention to monetary and material rewards, managers in the same or similar contexts must exert further efforts at improving the communication channel between the organization and the employees and fostering a harmonious work environment for their employees.

A practical way that may be borrowed from the studied banking call center is the regular information communication and feedback mechanism among the front, middle, and back offices. The HR department leads the information and coordination

meeting every two weeks at the studied banking call center. The managers and representatives of CSRs from other departments attend the meeting to exchange information and communicate issues from the frontlines that need to be addressed. The HR department then releases the meeting minutes, which specifies each of issue discussed in the meeting that is to be completed within the specified time. Thus, an effective two-way communication channel is established, that is, the CSRs become aware of the latest management policy and regulations for them, and the organization and managers know the exact demands raised by their employees.

Finally, the present study underscores the importance of establishing high-quality supervisor-subordinate *guanxi*. If this is accomplished, Chinese banking call center employees may likely give their supervisors and the organization the benefit of the doubt when a perceived breach of psychological contract occurs. Thus, their positive work attitudes toward their supervisors and the organization as well as their desire to remain affiliated with the organization may minimally decline. Therefore, this study suggests that managers in the same or similar contexts to that examined by this study concentrate on several aspects. (1) Given that perceived PCB has a detrimental impact on the work attitudes of employees, managers are advised to initially avoid making any unrealistic promises during employee recruitment, socialization, and daily work interactions. Such promises may have positive effects on employees in the short run, but the employee and the organization may suffer in the long run if those promises remain unfilled. (2) Managers are advised to put efforts in establishing a tight work- and non-work related *guanxi* with their subordinates, even though almost all subordinates of frontline supervisors are temporary employees. This study suggests that frontline supervisors should provide their subordinates with social and emotional support and a sense of identity by offering resources, information, and opportunities for promotion. The subordinates can be expected to develop *renqing* and *ganqing*, which are the main characteristics of *guanxi*. Thus, the effects on job performance may be expected to lead to improvements in individual and organizational performance.

In this study, the studied banking call center has taken the following actions. (1) The call center founded an internal periodical that is published once a month and includes various information, such as business operations, HR policies, group social activities, Q&A between employees and supervisors, and even cooking recipes from employees. (2) Depending on the performance of team, the call center offers different amounts of funds once a month to team supervisors who will then organize social activities for their team members. (3) The call center provides each team with a total of three hours free time every month during working days to have informal meetings with supervisors from the middle or the back office. Team supervisors often seek advice from team members and set up a meeting topic (e.g., a typical HR policy) two days before the meeting, and the HR department then organizes the exact meeting time.

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# Appendices

## Appendix 1: Contents of Psychological Contracts

### SECTION ONE: PERSONAL INFORMATION

Please circle the numbers representing the most appropriate responses for you in respect of the following items.

**1. Your age (years)**

- 1) Under 25
- 2) 25-29
- 3) Over 30

**2. Your highest completed level of education**

- 1) University diploma
- 2) Bachelor degree
- 3) Master degree or above

**3. Your gender**

- 1) Female
- 2) Male

**4. Contract of employment**

- 1) Temporary
- 2) Permanent

**5. Number of years worked in the organization**

- 1) Less than 1
- 2) 1-2
- 3) 3-5
- 4) Over 5

## SECTION TWO: MEASURES OF PSYCHOLOGICAL CONTRACT CONTENTS

### Part A: How your organization treats you

To what extent do you believe that your organization has delivered in the following areas? Please answer the following questions by circling the scale below:

1	2	3	4	5
Not at all	Slightly	Somewhat	Moderately	To a great extent

1. My organization treats me with respect	1	2	3	4	5
2. My organization has created a good cooperation environment in which people work together	1	2	3	4	5
3. My organization cares for my personal growth and personal life	1	2	3	4	5
4. My organization encourages colleagues to trust and help each other	1	2	3	4	5
5. My organization provides me with a friendly working environment	1	2	3	4	5
6. My organization maintains harmonious relationship between my supervisor and me	1	2	3	4	5
7. My organization provides positive feedback on my contribution and achievements	1	2	3	4	5
8. My organization treats me honestly	1	2	3	4	5
9. My organization provides good guidance on my job	1	2	3	4	5
10. My organization provide me with a challenging job	1	2	3	4	5
11. My organization has offered me training and studying opportunities	1	2	3	4	5
12. My organization considers my opinions before making decisions	1	2	3	4	5
13. My organization provides me with a career advancement within the organization	1	2	3	4	5
14. My organization provides me with enough working autonomy	1	2	3	4	5
15. My organization offers me a chance to use what I have learned	1	2	3	4	5
16. My organization gives me promotion opportunities	1	2	3	4	5
17. My organization provides me with job security	1	2	3	4	5

18. My organization provides me with the resources to carry out the job	1	2	3	4	5
19. My organization provides me rewards according to my performance	1	2	3	4	5
20. My organization provides me with competitive and fairly wages	1	2	3	4	5
21. My organization offers me benefits that I can count on (eg., various kinds of working insurance, vacation)	1	2	3	4	5

**Part B: How you treat your organization**

To what extent do you believe you should treat your organization? Please answer the following questions by circling the scale below:

1	2	3	4	5
Not at all	Slightly	Somewhat	Moderately	To a great extent

1. I get along well with my colleagues	1	2	3	4	5
2. I share information and solve problems together with colleagues	1	2	3	4	5
3. I cooperate with my manager or supervisor to complete job requirements	1	2	3	4	5
4. I make personal sacrifices for the interest of the organization	1	2	3	4	5
5. I volunteer to develop new skills to meet the needs of development of my organization	1	2	3	4	5
6. I Volunteer to do tasks that fall outside my job description	1	2	3	4	5
7. I offer ideas for the development of my organization	1	2	3	4	5
8. I am committed to the success of my organization	1	2	3	4	5
9. I advocate and protect my organization's image	1	2	3	4	5
10. I am loyal to my organization	1	2	3	4	5
11. I work extra hours if needed to get the job done	1	2	3	4	5
12. I will not support to my organization's competitors	1	2	3	4	5

13. I will notify my organization before quitting my job	1	2	3	4	5
14. I am willing to accept internal job transfer as needed	1	2	3	4	5



## **Appendix 2: PCB, SSG and Work Attitudes**

### SECTION ONE: PERSONAL INFORMATION

Please circle the numbers representing the most appropriate responses for you in respect of the following items.

**1. Your age (years)**

- 1) Under 25
- 2) 25-29
- 3) Over 30

**2. Your highest completed level of education**

- 1) University diploma
- 2) Bachelor degree
- 3) Master degree or above
- 4) Other (specify)

**3. Your gender**

- 1) Female
- 2) Male

**4. Contract of employment**

- 1) Temporary
- 2) Permanent

**5. Number of years worked in the organization**

- 1) Less than 1
- 2) 1-2
- 3) 3-5
- 4) Over 5

## SECTION TWO: PSYCHOLOGICAL CONTRACT BREACH (PCB)

### Part A: Organization Obligations (Adopted from project one)

- Using 5-point scales below please rate how IMPORTANT these expectations were to you (1=not at all important; 5=extremely important).
- At the same time, using 5-point below please rate how well you think each expectation you have been received from your organization so far (-2=received much less than expected; 2=received much more than expected).

#### ● Interpersonal obligations

<u>Items</u>	<u>How Important</u> 1=Not at all 2=Slightly 3=Somewhat 4=Moderately 5=Extremely					<u>Promises Received</u> -2= Much less than expected -1= Slightly less than expected 0=The same as expected 1=Slightly more than expected 2=Much more than expected				
	1	2	3	4	5	-2	-1	0	1	2
1. My organization treats me with respect	1	2	3	4	5	-2	-1	0	1	2
2. My organization has created a good cooperation environment in which people work together	1	2	3	4	5	-2	-1	0	1	2
3. My organization cares for my personal growth and personal life	1	2	3	4	5	-2	-1	0	1	2
4. My organization encourages colleagues to trust and help each other	1	2	3	4	5	-2	-1	0	1	2
5. My organization provides me with a friendly working environment	1	2	3	4	5	-2	-1	0	1	2
6. My organization maintains harmonious relationship between my supervisor and me	1	2	3	4	5	-2	-1	0	1	2
7. My organization provides positive feedback on my contribution and achievements	1	2	3	4	5	-2	-1	0	1	2
8. My organization treats me honestly	1	2	3	4	5	-2	-1	0	1	2
9. My organization provides good guidance on my job	1	2	3	4	5	-2	-1	0	1	2

● **Development obligations**

<u>Items</u>	<u>How Important</u> 1=Not at all 2=Slightly 3=Somewhat 4=Moderately 5=To a great extent					<u>Promises Received</u> -2= Much less than expected -1= Slightly less than expected 0=The same as expected 1=Slightly more than expected 2=Much more than expected				
	1	2	3	4	5	-2	-1	0	1	2
1. My organization provide me with a challenging job	1	2	3	4	5	-2	-1	0	1	2
2. My organization has offered me training and studying opportunities	1	2	3	4	5	-2	-1	0	1	2
3. My organization provides me with a career advancement within the organization	1	2	3	4	5	-2	-1	0	1	2
4. My organization provides me with enough working autonomy	1	2	3	4	5	-2	-1	0	1	2
5. My organization offers me a chance to use what I have learned	1	2	3	4	5	-2	-1	0	1	2
6. My organization gives me promotion opportunities	1	2	3	4	5	-2	-1	0	1	2

● **Normal obligations**

<u>Items</u>	<u>How Important</u> 1=Not at all 2=Slightly 3=Somewhat 4=Moderately 5=To a great extent					<u>Promises Received</u> -2= Much less than expected -1= Slightly less than expected 0=The same as expected 1=Slightly more than expected 2=Much more than expected				
	1	2	3	4	5	-2	-1	0	1	2
1. My organization provides me with job security	1	2	3	4	5	-2	-1	0	1	2
2. My organization provides me rewards according to my performance	1	2	3	4	5	-2	-1	0	1	2
3. My organization provides me with competitive and fairly wages	1	2	3	4	5	-2	-1	0	1	2
4. My organization offers me benefits that I can count on (eg., various kinds of working insurance, vacation)	1	2	3	4	5	-2	-1	0	1	2

### SECTION THREE: SUPERVISOR-SUBORDINATE GUANXI (SSG)

**Part B: SSG** (Graen & Uhl-Bien, 1995, as cited in Zhang, 2011; Cheung & Wu, 2011; Wang et al., 2005)

1	2	3	4	5
Strongly disagree	Disagree	Not sure	Agree	Strongly agree

1. I usually know how satisfied my supervisor is with what I do	1	2	3	4	5
2. My supervisor understands my job problems and needs	1	2	3	4	5
3. My supervisor recognize my potential	1	2	3	4	5
4. My supervisor uses his / her power to help me to solve problems in my work	1	2	3	4	5
5. My supervisor is willing to bail me out at his / her expense	1	2	3	4	5
6. I have enough confidence in my supervisor and I would defend and justify my his / her decision if he / she were not present to do so	1	2	3	4	5
7. I have a good relationship with my supervisor	1	2	3	4	5
8. I share interests in leisure activities (e.g., sports and movies) with my supervisor	1	2	3	4	5
9. My supervisor has invited me to his / her home for a dinner, party, or informal evening	1	2	3	4	5
10. My supervisor and me often go to social activities together	1	2	3	4	5
11. In my work group or division, task allocation is often based on <i>guanxi</i> with supervisor (s)	1	2	3	4	5

## SECTION FOUR: WORK ATTITUDES

### Part D: Job satisfaction (Yao, 2010)

1	2	3	4	5
Strongly disagree	Disagree	Not sure	Agree	Strongly agree

1. All in all, I'm satisfied with my current job	1	2	3	4	5
2. I'm satisfied with my current salary and bonus	1	2	3	4	5
3. I'm satisfied with my coworkers	1	2	3	4	5
4. I'm satisfied with my supervisor	1	2	3	4	5
5. I'm satisfied with my promotion opportunities	1	2	3	4	5

### Part E: Intention to leave (Zhang, 2011)

1	2	3	4	5
Strongly disagree	Disagree	Not sure	Agree	Strongly agree

1. I often think about changing my current job and moving to other organization	1	2	3	4	5
2. I have a strong desire to quit my job right now	1	2	3	4	5
3. I'm planning to work for other organization in near future (e.g., next year)	1	2	3	4	5

### Part F: Affective commitment (Tsui et al., 1997, as cited in Chen, 2007)

1	2	3	4	5
Strongly disagree	Disagree	Not sure	Agree	Strongly agree

1. For me this is the best of all possible organizations for which to work	1	2	3	4	5
2. I am proud to tell others that I am part of this organization	1	2	3	4	5

3. This organization inspires the very best in the way of job performance	1	2	3	4	5
4. I take up this organization to my friends as a great place to work for	1	2	3	4	5

**Part G: Organizational identification** (Mael & Ashforth, 1992)

1	2	3	4	5
Strongly disagree	Disagree	Not sure	Agree	Strongly agree

1. When someone criticizes the organization, I feel like a personal insult	1	2	3	4	5
2. I'm very interested in what others think about the organization	1	2	3	4	5
3. When I talk about the organization, I usually say 'we' rather than 'they'	1	2	3	4	5
4. The organization's successes are my successes	1	2	3	4	5
5. When someone praises the organization, I feel like a personal compliment	1	2	3	4	5
6. If a story in the media criticized the organization, I would feel embarrassed	1	2	3	4	5