Women as strategic resource and organization performances: a perspective of resource synergy

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Women as Strategic Resource and Organization Performance: A
Perspective of Resource Synergy

ZHU Hong

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

Principal Supervisor: Prof. LI Ji
Hong Kong Baptist University
August 2014
DECLARATION

I declare that this submission represents my own work and that it has been completed after my registration for the degree of PhD at Hong Kong Baptist University. The text has not been previously included in any academic work submitted to the University or to any other institution for a degree, diploma, or any other qualification.

Signature:  ______________

Date: August 2014
ABSTRACT

This thesis develops a new theoretical perspective (i.e., the resource synergy perspective) to explain how women in the workforce may help improve organization performance. Drawing upon this theoretical perspective, I study how women, as an important strategic human resource, can be better utilized with the resource synergy generated between women resources and certain synergy-relevant variables. Among the synergy-relevant variables, this perspective highlights the importance of organization strategy and leadership, because these two variables are developed based on organizational resources and should be contingent on the environmental and situational factors that are partly uncontrollable by an organization. In addition, the roles of organization culture as a type of environmental factor and task characteristics as a situational factor are also considered.

To realize the research goals, I conduct two studies at different levels. In study 1, I propose that organizations can take advantage of women resources by increasing the proportion of women in the employees at the macro level. Moreover, I propose that organization strategy, culture, and task characteristic have coordinative and supportive effects on the increase of the proportion of women, leading to the generation of resource synergy. Specifically, I seek to prove that, with the coordination and coherence of these synergy-relevant variables (i.e., customer-oriented strategy), the culture of collectivism, and task complexity, women’s resources can be better utilized. Thus, the generated synergy can bring greater competitive advantages for organizations and thus lead to higher organization financial performance.

In study 2, I proceed to suggest that making full use of women resource at the micro level is also important. The resource synergy perspective provides a new explanation for the roles of inequality and leadership in the utilization of women resources in organizations. This study proposes that women’s inequality perceptions have negative effects on their performance in organizations, thus preventing organizations from making full use of its important strategic resources and generating synergy. With these damaging effects, it is difficult for an organization to make full use of women resources and achieve competitive advantages. However, with a high level of leader-member exchange (LMX), which indicates high quality in leader-member relationships, female employees may still have the motivation to perform well. Thus, the negative effects of inequality can be attenuated and women resources can be better utilized with the synergistic effects of LMX.

To test the above hypotheses, I conduct two empirical studies in China. The sample of study 1 includes 132 organizations from the service industry. Results of the hierarchical regression analysis support the positive effects of increasing the proportion of women on the organization’s return on assets (ROA) but fail to support its positive relationship with market growth. The results also reveal that organization synergy-relevant variables such as customer-oriented strategy, the culture of collectivism, and task complexity do generate synergy with women resources. In other words, with the existence of these variables, the positive effects of the proportion of women on ROA and market growth are both enhanced.
Study 2, which is conducted in organizations from four industries in China (i.e., chemistry, electronic, manufacturing, and hospitality), consists of 190 female employees and 51 matched leaders. Results of the hierarchical regression analysis show that organization inequality is negatively related to women’s job-related performance and positively relates to their turnover intentions. In addition, LMX is found to positively moderate the effects of inequality on women’s job-related performance and negatively moderates the effects on their turnover intentions.

At the end of this thesis, the research’s theoretical and managerial implications are discussed. This thesis makes six contributions to the literature: 1) It is among the first to specify that women are a type of strategic resource for organizations and provide systematic investigations on how to make full use of this resource. 2) This research deepens the understanding of women as a type of resources by identifying certain boundary conditions; i.e., the synergy-relevant variables. 3) This research develops a new perspective (i.e., the resource synergy perspective) to study the utilization of women as a strategic resource for organizations at multi levels. 4) This research should extend the literature of culture by identifying the role of collectivism in making use of women as a resource. 5) This research can also add to the literature of leadership by examining the role of LMX in making use of women resources. 6) This research provides a new theoretical perspective for the relationship between employees’ inequality perceptions and their job performance.

In addition to the theoretical implications, this research also provides useful knowledge for the management in organizations. First, based on the research findings, organizations should provide equal opportunity in employment for women and include more women in the workforce. Second, it is also critical to retain the existing female workforce through better talent management, thereby providing a work environment supporting the utilization of women resources. Based on the synergy relevant variables examined in this research, organizations should pay attention to their strategy, culture and task characteristics. It is important for organizations to consider about whether their culture supports the utilization of women resources or not. By the culture of high collectivism, organizations can provide a favorable work environment where women are more likely to be accepted and respected. Moreover, a strategy of customer orientation is beneficial for women resource to be deployed fully. Also organization should pay attention to place women in appropriate tasks. Third, this research highlights the importance of women’s individual performance in realizing their value in organizations. It is vital for organizations and managers to improve women’s equality perceptions within organizations. Moreover, managers and organizations should take measures to enhance the quality of leader-subordinate exchange relationship.

Moreover, the strength and limitations of this research are also discussed. The research has several strengths. First, this research is theory-driven. Second, I conduct two empirical studies at multi-levels to address the issue of making full use of women in organizations. Third, the sample size is large in both studies (study 1, 132 organizations; study 2, 190 female employees and 51 matched leaders). Fourth, the threat of common method bias is further minimized because I collect the data of study 2 from both employees and their immediate supervisors. Fifth, I adopted the appropriate approaches to analyze the data and test the hypotheses.
Finally, I try to suggest possible directions for future research on the utilization of women resources in organizations.

**Keywords:** utilization of women resources, the proportion of women, inequality, resource synergy, performance
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PART ONE INTRODUCTION

Chapter 1
Research Motivation

1.1 Research background

In this era of hyper-aging, the issue of labor shortage is becoming more and more serious globally (Cappelli, 2005). With the decrease of young population and the increase of aging population, most countries are threatened by the ticking time bomb, i.e., the huge gap between booming job demands and workforce shortage. According to a recent report published by IMF, in 2015, the proposition of the working population will drop significantly all over the world; for example, by 3% in England, 11% in France, and 25% in Spain. Even in developing countries with large populations, such as China, the increase of labor is turning into a decrease, and many cities are reporting that labor supply has fallen to less than half of the demand.

To cope with this challenge, it is important to tap into the entire population, including both men and women (e.g., Wentling & Thomas, 2009). Given their severely underestimated role in most economies, women play a critical role in replenishing the shortage of workers (Wentling & Thomas, 2009). Actually, it is suggested that making better use of women resources not only benefits women, whose value has been long underestimated, but also can reshape the countries’ economy. For instance, the IMF (2003) suggested that the USA, Japan, and Egypt would gain additional growth of 5%, 9%, and 34%, respectively, if they could make
better use of the female workforce, such as by including as many women as men in the workplace. Many countries, such as Japan, have specified that unlocking the hidden resources of women is a key element in the countries’ future strategic development and have set up goals toward improving women’s role in the workforce.

Indeed, women play an important role in society. In this research, I mainly focus on women’s critical role in organizations. This is because organizations are the major employers who determine women’s situation in workplaces, which is the key to realizing women’s value for the whole economy (Barsh & Yee, 2012). On the one hand, in organizations, women are as capable as men. For example, as suggested by previous research, women can perform as well as men in problem solving (Hoffman & Maier, 1966), can demonstrate high competence in tasks (Heilman et al., 2004), are effective leaders as men are (Eagly & Carli, 2003). On the other hand, women have advantages compared to men, making unique contributions to organizations. For example, women help improve the decision quality (Carter, Williams, & Reynolds, 1997; Wegge et al., 2008), smooth interpersonal relationships (Omar & Davidson, 2001), and they are particularly effective leaders under certain conditions (Eagly & Carli, 2003; Rosette & Tost, 2010).

Despite the obvious importance of women’s resources, there are many obstacles to the realization of women’s value in organizations. According to findings in research and practice, the major obstacles preventing organizations from making full of women include unwillingness to hire women, ignorance about how to take advantage of women, inequality against women within organizations. Below I’ll discuss about these obstacles briefly. First, the fact that women are valuable
resources for organizations hasn’t been fully realized. Many organizations’ top managers do not see the value in a gender-diverse workforce (Robinson & Dechant, 1997; Wright et al., 1995). Employers often prefer men to women as employees because women are considered to be less capable than male workers, with lower participation rates, weaker adaptability, and poorer mobility and attendance records. Women are even sometimes considered burdens rather than resources because of the fuss and cost associated with women’s physiological conditions (periods, illness, childbearing and care, extra legal protection) (Cooke, 2001). As a result of employers’ preference for male employees, women’s employment participation rate is still low, especially in industry sectors where high level of skills and education are in demand. In other words, sex stereotyping and gender segregation commonly exist in vocational and work choices all over the world. Men make up the majority of employees in most of the occupations and sectors in which average earnings are highest (Stockman, 1994), while women represent the majority of employees in those sectors in which average earnings, employment welfare, and job security are all the lowest.

Moreover, even though more and more organizations are willing to include more women as employees, many still do not know where to start to unlock the potential of women. In other words, organizations still know little about how to make full use of women as resources. For example, in a recent report published by a project covering hundreds of Asia-Pacific-based female employees (2014), only 20% of them felt that their company culture and mindset supported the progression of women, and 31% said they would ideally like to leave their current employer.
Second, as concluded by the American Association of University Women (AAUW, 1992), barriers to equality, both in school and society, are major challenges every woman faces. In the workplace, previous research suggested that gender-related inequality was commonly reported as the greatest barrier to career development by women (e.g., Burlew & Johnson, 1992; Luzzo, & McWhirter, 2001; McWhirter, 1997; Melamed, 1995; Shaffer et al., 2000; Swanson & Tokar, 1991). To be specific, on the one hand, women are usually paid unequally in organizations. Some studies suggest that women are paid 16% less than their male counterparts for doing the same work in developed countries (IMF, 2013). In developing countries such as China, the income ratio between men and women is 1:0.77, which indicates a large earning gap between women and men (Jiang, 2000). On the other hand, women also have much fewer promotion opportunities than men. In China, less than 8% of top management positions and 36% of middle management positions are occupied by women (Hays, 2014). In addition to inequality in pay, position hierarchy, and promotion, women are also disadvantaged in the termination of employment. In the wave of lay-offs, for example, in the financial crisis, women are one of the vulnerable groups who are much more likely to be dismissed than their male counterparts (Cooke, 2001).

All of these instances of inequality can lead women to perceive themselves as disadvantaged, leading to various negative outcomes, such as low level of affective commitment and job satisfaction and high level of turnover intentions and life stress (e.g., Carr et al., 2000; Cole & Singer, 1997; Shaffer et al., 2000). Moreover, as a result of more cumulative negative experiences of being members of a long-term
disadvantaged social group, women should be more sensitive to the issue of inequality (Cole & Singer, 1991; Ngo, Tang, & Au, 2002; Trentham & Larwood, 1998). In other words, the issue of inequality has a great impact on women in organizations. Therefore, inequality – not just gender-related inequality in workplaces – serves as a major barrier within organizations to taking full advantage of women as a resource.

1.2 Current research on making use of women human resources

From the above discussion, one can conclude that there are many barriers to making full use of women resources in organizations, although the issue of labor shortage is serious and emergent. As a result of this situation, many parties in practice are calling for attention to help overcome the obstacles to utilizing women fully within the organization.

Responding to these calls, it is meaningful for researchers to study how to take advantage of women as resources in organizations. Moreover, despite the urgent need in practice, research in this area is so insufficient that there are many unanswered questions. For example, are women resources or burdens for organizations? How to make good use of women in organizations to realize their value? What are the factors facilitating or hindering organizations’ ability to take advantage of women resources? The evidence is quite limited and the results are inconclusive.

There are insufficient studies on the issue of whether women should be a strategic resource for organizations and how to take advantage of this part of human
resources (e.g., Choi, Price, & Vinokur, 2003; Richard, Ford & Ismail, 2006). Indeed, most of the previous research on this issue approaches it from the perspective of gender diversity, which is examined mostly as one dimension of demographic diversity. These studies can provide implications for the current topic to some extent. For instance, the positive effects of including more female employees are identified, which provides evidence for women’s value as resources in organizations. For example, researchers find that demographic diversity, including gender diversity, can increase the creativity and problem-solving capability of groups, which in turn should increase performance given certain contextual conditions (e.g., Cox, 1993; Cox & Blake, 1991; Li, Chu, Lam & Liao, 2011).

However, the research on gender diversity is still insufficient to answer many unsolved questions on the issue of how to take advantage of women as resources. First, these works of research usually study gender diversity as one dimension of demographic diversity, assuming no difference between women and other minorities, such as racial minorities (e.g., Drach-Zahavy & Somech, 2002; Harrison et al., 2002; Jehn & Bezrukova, 2004). Thus, characteristics of female employees are neglected. Moreover, this stream of research is conducted with the focus on the balance between two gender groups rather than the utilization of women resources (e.g., Choi, Price, & Vinokur, 2003; Wegge et al., 2008; Richard et al., 2004). In addition, most of the research considers more women joining the workforce as a challenge for organization to be coped with or a human resource cost to be managed rather than an asset to be deployed (Richard, 2000; Van Knippenberg, De Dreu, & Homan, 2004).
In other words, they focus on organizations’ passive reactions rather than positive utilization of women as a valuable resource.

Second, most of the research on gender diversity is conducted at the group level, and relatively few studies assess the consequences of including more women at the organization level (Joshi, Liao, & Roh, 2011; Kochan et al., 2003). In other words, it remains unclear how to take advantage of the resources brought by women at the organization level. This lack of research at this level represents a significant research gap, because the effects of including more women within the organization should be a great concern for the decision makers of organizations, who are the major employers in labor markets. Third, recent reports of meta-analysis and reviews of research in this field revealed no consistent conclusions on the effects of gender diversity on performance (c.f. Sacco & Schmitt, 2003; Hartenian & Gudmundson, 2000; Jackson, Joshi, & Erhardt, 2003; Webber & Donahue, 2001; Wright et al., 1995). In other words, the effects of including more female employees are still unclear. Moreover, the interactions between gender diversity with other organization level variables, such as organization strategies, are largely unexplored (Bell et al., 2011; Joshi & Roh, 2009). These organization variables should be investigated, since they may support the realization of women’s value (e.g., Richard, 2002; Richard, Ford & Ismail, 2006). Fourth, while most works of research focus on including more women in the workforce, little attention has been paid to whether women can perform well and how other organization variables can help elicit women’s good performance. These issues should be important for realizing women’s value and then benefiting the organizations finally. Fifth, given the long
history of being a disadvantaged social group, inequality should be an important issue in making full use of women resources. However, so far, there has been insufficient research specifying this linkage, which is a significant omission in the literature of utilizing women resources in organizations.
Chapter 2

The Research Plan

2.1 Brief introduction of this thesis

To help bridge the research gaps, as mentioned above, I develop a new theoretical perspective, i.e., the perspective of resource synergy, with which I deal with the issue of women resource utilization. This perspective suggests that women, as an important strategic resource, should be combined with certain synergy-relevant variables to generate resource synergy, which can lead to more competitive advantages and higher performance.

According to the literature, variables such as organization strategy, task and technology characteristics, culture, and leadership may have synergistic effects among human resources (e.g., Bell et al., 2010; Jackson, Joshi, & Erhardt, 2003; Joshi & Roh, 2009; Priem & Butler, 2001; Sirmon et al., 2011), including women resources. Among these variables, strategy and leadership are quite special because they are developed based on organizational resources and should be contingent on the environmental and situational factors that are uncontrollable by an organization. As a result of their integration of resources, situational factors, and environmental factors, strategy and leadership can determine or influence the amount of emphasis and resources allocated to various organizational elements and involve individuals across all levels and functional areas (Burgelman, 1983; Delery & Doty, 1996; Doty, Glick, & Huber, 1993; Ruekert & Walker, 1987). Therefore, the utilization of women resources should be impacted significantly through strategy and leadership.
Moreover, since strategy and leadership are contingent on the environmental and situational factors that are uncontrollable to an organization, it is also necessary that certain important environmental and situational factors should be taken into account when considering the issue of resource synergy. As suggested by previous research, organization culture, as a type of environmental factor, is a powerful social control system which exerts strong influence on employees’ coherent and predictive behaviors (Williams & O’Reilly, 1998). Through certain cultural elements, such as rituals, heroes, routines, and managerial values, organizational culture has a great impact on the organization and its employees, such as the acceptance degree of difference, attitudes and behaviors towards conflict (Deal & Kennedy, 2000; Merron, 1995). Therefore, culture should have great potential to impact the utilization of women resources.

In addition, certain situational factors such as task characteristics can also influence the exploitation degree of human resources. Task characteristics not only influence employees’ work motivation, but also affect the interdependence and interactions among coworkers. For example, employees are more likely to collaborate with each other and have less conflict when the task is designed with shared objectives rather than independent ones (Wageman, 2001; Williams & O'Reilly, 1998).

Based on the above discussion, the resource synergy perspective highlights the roles of strategy, leadership, culture, and task characteristic in helping an organization make better use of women resources. In the first study, I propose that women should be considered valuable human resources so that the increase of the
proportion of women as employees should lead to higher organization performance. Moreover, with the existence of certain synergy-relevant variables, including organization strategy, task complexity, and culture, resource synergy can be generated, which can lead to more unique competitive advantages. These competitive advantages should lead to better organization performance, which indicates better utilization of women resources at the organization level. Thereafter, I proceed to propose in study 2 that, if women perceive inequality within organizations, their performance can be influenced negatively, which indicates that organizations lose resources through women. In other words, women’s inequality perceptions lead to negative performance of women at the individual level, which prevents organizations from taking advantage of women as a resource. However, certain types of leadership style, which help generate resource synergy with women, can attenuate the negative effects of inequality.

To sum up, this thesis focuses on how to make full use of women in organizations at different levels. My research in this thesis consists mainly of two empirical studies. The first study deals with how to make full use of women at the organization level; i.e., increase the proportion of women as employees and generate resource synergy between women and strategy, culture, and task characteristic. The second study examines one major obstacle to taking advantage of women (i.e., inequality) and how to alleviate such negative effects by the resource synergy generated by leadership. In other words, these two studies deal with two aspects of women resource utilization: the increase of women proportion and the issue of inequality, which should be theoretically related to each other closely.
There are two studies rather than only one study, because these two studies deal with two different issues related to women resource utilization, i.e., the increase of women proportion and inequality. Moreover, these two studies are conducted at the organization level and individual level respectively. Therefore it should be clearer to test the theoretical model with two studies. In addition, the quality of data can also be improved because using two studies can reduce the workload of the participative organizations.

These two studies are both conducted in China for two reasons. First, as I discussed before, labor shortage is more and more serious in China, yet Chinese employers still have not fully realized the importance of women. For example, Chinese employers are accustomed to showing preference for men over women during recruitment (Cooke, 2001). Second, the administration and building of an effective legislative system to protect women’s interests relatively lag far behind the economic development in China. In addition, traditional Confucius values, which have long been criticized for their low consideration of women, are still influential among Chinese people. As a result of this situation, gender inequality in the Chinese workplace is still prevalent. Considering these two reasons, China can provide appropriate contexts for this research.

The specific research objectives for the two studies will be described as follows.

2.2 The effects of increase of women proportion and resource synergy at the organization level
In this study, I study the effects of women as a resource in organization performance, i.e., market growth and return of assets (ROA), in a number of organizations within the service industries. I argue that women should be a type of strategic human resource that helps the organization gain unique competition advantage. Therefore, organizations which are willing to include more women among their employees will achieve good financial performance, such as good market growth and ROA.

In this study, unlike previous research, I examine the effects of women proportion rather than gender diversity for two reasons. First of all, women proportion reflects the percentage of women in all the employees, while gender diversity deals with the proportion balance between the two gender groups (e.g., Choi, Price, & Vinokur, 2003; Wegge et al., 2008; Richard et al., 2004). Second, the value of gender diversity should be maximized when the percentage of women equals to that of men (Blau, 1977; Teachman, 1980). Moreover, gender diversity does not distinguish the respective percentage of each gender group. For example, the value of gender diversity should be the same when the ratio between women and men is 1/5 and 5/1. As this research focuses on the increase of women instead of gender balance in organizations, it is more appropriate to measure the extent of women resource utilization by the increase of women proportion than gender diversity.

In addition to the main effects of increasing the proportion of women employees, I further draw upon the perspective of resource synergy to examine whether certain synergy-relevant variables (i.e., customer-oriented strategy, the
culture of collectivism, and task complexity) can generate synergy with the strategic resources brought by women.

Customer-oriented strategy reflects the degree to which an organization can gain a competitive advantage by undertaking customer-oriented activities, such as product augmentation and designing products with characteristics to enhance customer satisfaction (Bowen, Siehl, & Schneider, 1989; Levitt, 1969; Liao & Subramony, 2008; Zhou et al., 2008). I concentrate on customer-oriented strategy rather than other strategies, because this strategy is closely related to women resources. According to research, when compared to men, women have unique resources, such as an emphasis on relationship cultivation (e.g., Gilligan, 1982), great tendency to show concern and care (Stimpson et al., 1991), good ability to demonstrate relatedness, emotional closeness, and empathy ability (e.g., Lewis & Cooper, 1999; Omar & Davidson, 2001). These resources should be viewed highly in accordance with customer-oriented strategy, which emphasizes the development of meaningful relationships with customers and high concern for customers (e.g., Franke & Park, 2006). Moreover, including more women in the workforce may help organizations develop a broader and deeper understanding of their customers and better satisfy customers’ needs, which also can help the implementation of customer-oriented strategy.

Regarding the task characteristics, I concentrate on task complexity, because it has the greatest impact on interactions between members within an organization (e.g., Jehn, Northcraft, & Neale, 1999; Wegge et al., 2008). When task complexity is high, interdependence among organization employees should be high, and
employees are more likely to collaborate closely with each other to accomplish the work. Actually, previous research on demographic diversity has suggested that task complexity should help elicit the positive effects of demographic diversity (e.g., Bowers et al., 2000; Jehn et al., 1999; Pelled, Eisenhardt, & Xin, 1999; Timmerman, 2000; Wegge et al., 2008). Therefore, task complexity is examined as a situational factor with high potential to impact the effects of women in organizations since it may influence the interactions between women and coworkers.

For organizational culture values, I focus on one dimension which is the most theoretically relevant: the organizational culture of collectivism. Collectivism refers to the degree to which the people in an organization are integrated into strongly cohesive groups and base their self-understanding on the reactions of others (Hofstede, 1984, 2010). Among the cultural values, collectivism is one of the most commonly studied dimensions and may be perhaps the most useful and powerful dimension of culture in explaining a diverse array of social behaviors (Triandis, 1995). Despite being conducted at widely different times, with different samples and methods, major studies in cultural values (e.g., GLOBE, 2004; Hofstede, 1980; Kluckhohn & Strodtbeck, 1961; Schwartz, 1994; Trompenaars, 1993; Wang & Young, 2013) have identified this dimension of culture. This convergence suggests that collectivism is a broad and comprehensive cultural dimension which helps distinguish between major cultures globally. Empirical studies have also shown that the cultural value of collectivism is highly correlated with many other commonly tested cultural values, such as power distance and long- vs. short-term orientation (e.g., Hofstede, 1980; Yeh & Lawrence, 1995). In this research, collectivism is
examined as an environmental factor because it is especially relevant to the utilization of women resources; the entrance of women in the workforce may bring about conflicts (e.g., Jehn & Bezrukova, 2004; Harrison et al., 1998; Jehn, Northcraft, & Neale, 1999), and collectivism may help resolve such conflicts, because this type of culture focuses on maintaining balance and harmony within an organization (Chen et al., 2011; Triandis, 1995).

2.3 The effects of inequality on realizing women’s value

In the second study of this thesis, I continue to study the issue of inequality, which may prevent organizations from making full use of the resources brought by women. In this study, I study the effects of inequality on women’s performance at the individual level. I argue that inequality has adverse effects on women’s performance and that women’s negatively influenced individual performance prevents organizations from making full use of women as a resource. Moreover, I argue that leadership should have synergistic effects on women resources by attenuating the negative effects of inequality.

To be specific, I propose that a certain leadership approach, i.e., leader-member exchange (LMX), should help alleviate the negative effects of inequality on women and then lessen the loss of women’s resources for organizations. In other words, with the existence of a high level of LMX, women tend to be more devoted to work, and thus the negative effects of inequality can be decreased. This indicates that women resources can be better utilized.
I focus on LMX rather than other leadership styles, because it should be the most relevant and effective style of leadership for women in the situation of organization inequality. As I discussed before, leadership is developed based on organizational resources and should be contingent on certain environmental and situational factors. A leader may adopt different leadership styles and adjust his/her relationship behaviors with employees to increase leadership effectiveness according to particular environmental and situational factors (House, 1971; Hughes et al., 1999; Liu et al., 2003; Reddin, 1967; Vecchio, 1987). In other words, for a leader to be effective, he or she needs to engage in behaviors that can complement the deficiencies of the environment and employees (House, 1996).

To be specific, in this study, when a female employee perceives organization inequality, she may have negative experiences such as aversive somatic and emotional arousal (e.g., anxiety, fear, and fatigue), develop negative feelings towards the organization, and lose internal resources such as self-efficacy and ability to regulate behaviors (Franzblau and Moore, 2001). However, in a high-quality LMX relationship, the female employee can gain access to greater support, formal and informal rewards, better attention, and benefits (e.g., more resource allocation and more frequent promotions), which can compensate for the women’s resource loss caused by organization inequality.

2.4 Research contributions

This research will make four contributions. First, it is among the first to specify that women are a strategic resource for organizations and provides systematic
investigations on how to make full use of this resource. This research enriches the literature of utilizing female workforce in organizations through multi-level investigations. Second, this research develops a new perspective (i.e., the resource synergy perspective) to comprehend the utilization of women as a strategic resource for organizations at multi-levels. By identifying the resource synergy-relevant variables in organizations, the understanding of how to make better use of women resources should be enhanced. Third, this research should extend the literature of culture by examining its role in the utilization of the female workforce in organizations. Therefore, the current study will also contribute to the literature of cross-cultural research and international management. Finally, by showing more information and evidence about strategic synergy at both macro and micro levels, my current study can help organization management to be more successful in managing human resources, especially female human resources today. In other words, this study will also provide useful knowledge for managerial practitioners.

2.5 Organization of this thesis

The dissertation consists of three parts. Part 1 consists of two chapters: chapter 1 introduces the research motivation and chapter 2 introduces the research in this thesis.

Part two provides theoretical background, including 5 chapters: chapter 3 to chapter 7. Chapter 3 reviews previous research on organization resources, presents the definition of organization resources in this research, and introduces major resource theories. Chapter 4 reviews previous research on resource synergy, defines
resource synergy in this research, and reviews previous research on the synergy between human resources and other organization resources. Chapter 5 reviews the relevant research on including more women in the workforce. Chapter 6 reviews the research on women inequality both in the West and in China. Chapter 7 discusses the theoretical model and the hypotheses.

Part 3 consists of 3 chapters. Chapter 8 describes the research methodology, Chapter 9 presents the research findings, and Chapter 10 presents the discussion and conclusion.
Chapter 3

Organizational Resources

3.1 Different definitions of organization resources

Researchers have provided a variety of definitions for organization strategic resources. For instance, Wernerfelt (1984) defined such resources as assets, including tangible and intangible ones, which are tied semi-permanently to the organization at a given time. Barney (1991) argued that the bundles of tangible and intangible assets which an organization controls to gain competitive advantage are defined as resources and capabilities. These resources and capabilities include an organization’s management skills, its organizational processes and routines, and the information and knowledge it controls, which are valuable, rare, imperfectly imitable, and not substitutable.

More recently, with the development of organization theory, the scope of resources has been extended to an even larger domain. Resources for organizations refer to anything which could be thought of as a strength of a given organization, such as information technology (Mata, Fuerst, & Barney, 1995; Powell, 1997), strategic planning (Michalisin et al., 1997; Powell, 1992), organizational alignment (Powell, 1992b), efficient organizational processes or procedures (Priem & Butler, 2001), human resources management (Flood, Smith, & Derfus, 1996; Lado & Wilson, 1994; Wright & McMahan, 1992), trust (Barney & Hansen, 1994),
organizational culture (Fiol, 1991; Oliver, 1997), administrative skills (Powell, 1993), employment of skilled personnel (Priem & Butler, 2001), top management skills (Castanias & Helfat, 1991), guanxi (Tsang, 1998), and production demands and experiences (Qian et al., 2008), among others.

In addition, rather than defining organization resources by scope, other researchers define organization resources by suggesting categorizations of resources. Some researchers suggest that resources are the assets an organization relies on to secure sustainable abnormal returns, including static resources, dynamic capabilities, and knowledge (Barney, Wright, & Ketchen, 2001; Kristandl & Bontis, 2007). This definition emphasizes that the dynamic capabilities which indicate the ability to continuously change and adapt (and find opportunities to generate abnormal returns) are regarded as especially important organization resources (Barney et al., 2001; Fiol, 2001; Eisenhardt & Martin, 2000; Kristandl & Bontis, 2007). Such resources help organizations to secure a constant path of temporary advantages in a dynamic market (Fiol, 2001; Barney et al., 2001) and thus are considered to be important in a dynamic market as well as stable market (Kristandl & Bontis, 2007).

According to some other researchers, organization resources are categorized into tangible, intangible, and human resources (e.g., Amit & Schoemaker, 1993; Barney, 1986; Li et al., 2011; Richard, 2000). Tangible resources refer to organizational assets that are relatively easy to identify, such as physical and financial assets, while intangible resources are those that are difficult to identify or account for, such as organization reputation, brand names, and organization image. Human resources are also intangible resources, referring to intangible assets that
exist among the organization’s employees, such as experience, creativity, and capabilities. Human resources are suggested to be so extremely important that they are categorized separately with other intangible resources. This is because human resources are more unique and inimitable in contrast with other resources, such as physical or financial ones (Li et al., 2011). Actually, human resources have been identified as crucial differentiating factors that explain the differences in performance among organizations that possess similar tangible and intangible resources (Pfeffer, 1994).

Although the consensus on the definition and scope of strategic resources has yet to emerge (Wade & Hulland, 2004), the four characteristics for organization resources are well recognized. These four characteristics separate strategic resources from the regular ones: valuable, rare, imperfectly imitable, and non-substitutable (Barney, 1991; Barney et al., 2001; Wade & Hulland, 2004). First, to be valuable, organization resources need to create sustainable value for an organization (Barney, 1991; Conner, 1991; Priem & Butler, 2001). Second, to be rare, resources need to be heterogeneously distributed across organizations and not easily accessible to competitors (Barney, 1991). Third, to be inimitable or exhibit low imitability, resources should be difficult to be copied by competitors (Barney, 1991; Dierickx & Cool, 1989; Lippman & Rumelt, 1982). Fourth, resources also need to be non-substitutable. Competitors must not have equivalent resources in order to substitute an otherwise inimitable resource (Barney, 1991).

Considering prior definitions, as I reviewed above, I propose my definition of resource for this thesis. Here I adopt the definition of several authors (e.g., Amit &
Schoemaker, 1993; Barney, 1986; Li et al., 2011; Richard, 2000) that categorizes organization resources into tangible, intangible, and human resources (see the discussion above).

Moreover, consistent with Wernerfelt (1984), I assume that an organization’s resources should be tied semi-permanently to the organization. In this sense, some variables, such as strategy and leadership, which are defined as resources by some researchers (e.g., Michalisin et al., 1997; Powell, 1992), are not defined as organizational resources here because they can be changed frequently in an organization. Indeed, the literature has stressed that good strategy and leadership are developed based on organizational resources and should be contingent on the environmental and situational factors that are uncontrollable to an organization (Ansoff, 1980; Grant, 1991; Snow, & Hrebiniak, 1980). Moreover, the environmental and situational factors which are beyond the control of an organization and its management, such as organization culture, technology complexity, and task complexity, are not defined as resources here either.

3.2 Women as organization resources

Based on the above definition of organization resources, I argue that women can be important organization resources under certain conditions and generate synergy with certain synergy-relevant variables. Research has provided evidence to this argument. Specifically, with their skills, experiences, knowledge, and capabilities, women may enable their organizations to create sustainable value under certain conditions. Moreover, in many industries, such a resource is neither available
to a large number of organizations nor imitable by other organizations, nor is substitutable with other resources. In short, in many industries, female employees are a type of human resource which creates unique value that is both inimitable and rare, thus serving as a source of sustained competitive advantage. Below I’ll discuss the characteristics of women as a strategic human resource.

**Value.** According to Stephenson (2004), women buy more than 75% of the products and services and make 80% of the purchasing decisions regarding household spending, making them the majority of customers nowadays. As female employees should have a better and deeper understanding of the preferences and requirements of female customers, with more women as employees, organizations can serve women customers better by drawing upon the knowledge of female employees (Morrison, 1992). Moreover, women’s distinct cognitive style can also bring alternative perspectives and viewpoints to improve the quality of thought, performance, and decision making in the workplace (Nemeth, 1992; Richard, 2000). Therefore, women as a human resource are valuable for organizations.

**Inimitability.** According to research, human resources are extremely difficult to be imitated because they are protected by knowledge barriers and appear socially complicated (Lippman & Rumelt, 1982). For organizations with gender-diverse human resources, the degree of social complex is even higher because of the mix of talents that are elusive and hard to understand (Lippman & Rumelt, 1982). Moreover, this socially complex dynamic in organizations generated from gender-diverse human resources are not transferable across different organizations, benefiting only
the organizations in which the relationships develop (Richard, 2000). Hence, the value of women as a type of human resource is difficult to imitate.

**Rarity.** In this age of labor shortage, human resources are rare. This is especially true for women as a type of human resource, because their value has long been ignored and is far from fully tapped (Wentling & Thomas, 2009). Moreover, the participation rate of women in the labor market is still low compared to their male counterparts, especially in industries with high gender segregation. In addition, organizations are still rarely aware of how to make full use of women’s resources. This is because most organizations have not realized the value of women and consider women’s participation in the labor force as a challenge rather than opportunity (e.g., Richard, 2000; Robinson & Dechant, 1997; Wright et al., 1995).

**No Substitution.** Compared to men, women have unique advantages, such as a feeling cognitive style (Hurst & Genest, 1995), relational-orientation, and an emphasis on nurturing and caring (e.g., Lewis & Cooper, 1999; Omar & Davidson, 2001). These characteristics should facilitate smooth communication, harmonious interpersonal relationships, and efficient cooperation, making women especially non-substitutive in this age of flat organization and team work structures. Moreover, women have their own understandings and insight into customers’ needs that are beyond men’s reach (Hillman, Shropshire, & Cannella, 2007). Thus women resources are especially non-substitutive in this age of strong female purchasing power (Natividad, 2005).

Based on the above discussion, I can conclude that women can be seen as a strategic human resource for organizations. Moreover, there are two aspects worth
mentioning about women as a human resource. The first aspect is that, in the definition of women as a strategic human resource in this research, I emphasize that the value of women resources depends on whether women can be integrated with certain synergy-relevant variables. This emphasis is in line with previous research (Barney, 1991, 2001; Conner, 1991; Priem & Butler, 2001), which suggests that the degree of a resource’s value depends on its interactions with certain variables, such as organizational strategy (Priem & Butler, 2001). The second aspect is that, I study the issue of women as a human resource at two levels, i.e., the macro level and the micro level. At the macro level, women as a human resource are examined as a whole (i.e., the proportion of women among all the employees), whereas at the micro level, women resources are specified to the skills, insight, perspective, and knowledge embedded in women.

3.3 Major theories of organization resources

Given its obvious importance, there are a number of theories penetrating the effects of resources from different perspectives. Major theories on resources include the RBV (Barney, 1991), resource dependence theory (Pfeffer, 1972; Pfeffer & Salancik, 1978), and conservation of resources theory (Hobfoll, 1989, 2002). Among these theories, the RBV deals with the resources organizations own to gain competitive advantages and fuel organizations’ financial performance, whereas conservation of resources theory (COR) focuses on the resources individuals possess to fulfill their central needs at the individual level. Since this thesis focuses on making full use of women as a strategic resource in organizations both at the macro
level and micro level, the RBV and conservation of resources theory are the most relevant resource theories. Below I provide a brief review of these two theories.

A) The Resource-based view of firms (RBV)

Although some earlier works had identified firm resources as important (e.g., Penrose, 1959), the critical role of firm resources hasn’t been fully realized until the RBV of the firm began to take shape in the 1980s (Priem & Butler, 2001). Before the emergence of RBV, traditional industrial-organization theories and frameworks that focused external analysis were dominant, such as Porter’s (1998) five forces model. RBV began to redirect attention inside of organizations (Hoskisson et al., 1999). The RBV emphasizes an internal analysis of the differences in resource endowments across firms (within the same industry and across different industries) and explains how these differences can be a source of sustainable competitive advantage (Barney, 1986, 1991; Wernerfelt, 1984).

Within over two decades, RBV has drawn enormous attention, with strong evidence indicating that it has evolved into a well-developed theory (Barney, Ketchen, & Wright, 2011). Under the umbrella of RBV, a number of prominent spin-off perspectives have been generated, including the knowledge-based view (Grant, 1996), the natural-resource-based view (NRBV) of the firm (Hart, 1995), and dynamic capabilities (Teece, Pisano, & Shuen, 1997). Moreover, RBVs have been integrated with other theories or perspectives, such as institutional theory (Oliver, 1997) and organizational economics (Combs & Ketchen, 1999) to provide insights for researchers. In addition, RBV not only gains applications within
strategic management but also provides implications for other important fields, including human resource management (Wright, Dunford, & Snell, 2001), economics (Lockett & Thompson, 2001), entrepreneurship (Alvarez & Busenitz, 2001), marketing (Srivastava, Fahey, & Christensen, 2001), and international business (Peng, 2001).

There are several important points within the RBV. Barney (1991) notes that two assumptions are elemental to the RBV: (1) resources are distributed heterogeneously across firms and (2) these productive resources cannot be transferred from firm to firm without cost (i.e., resources are "sticky"). Given the assumptions, Barney (1991) makes two fundamental arguments. First, resources that are both rare (i.e., not widely held) and valuable (i.e., contribute to firm efficiency or effectiveness) can produce competitive advantage. Second, when such resources are also simultaneously not imitable (i.e., they cannot easily be replicated by competitors), not substitutable (i.e., other resources cannot fulfill the same function), and not transferable (i.e., they cannot be purchased in resource markets; Dierickx & Cool, 1989), those resources may produce a competitive advantage that is long lived (sustainable).

In sum, resources contribute to these sustainable performance advantages to the extent that they are valuable, rare, costly to imitate, and non-substitutable. Resources are valuable when they help to improve the firm’s efficiency and effectiveness (Barney, 1991). Resources also need to be rare to provide competitive advantage; otherwise valuable resources only provide competitive parity (Barney, 1991). A
valuable and rare resource can help sustain a firm’s competitive advantage to the extent that the resource is difficult to imitate (Barney, 1991).

For a certain resource to be inimitable, there are three sources (Armstrong, & Shimizu, 2007). The first source is unique historical conditions under which resource bundles are created. The second is a causally ambiguous relationship between resources and the resulting competitive advantage, and the third is the social complexity of the resources (Dierickx & Cool, 1989; Lippman & Rumelt, 1982).

Finally, valuable, rare, and difficult-to-imitate resources can be a source of sustained competitive advantage to the extent that there are no strategically equivalent resources (Barney, 1991). On the contrary, if the resource that a firm possesses is easy to be substituted, the firm may not be able to enjoy a sustainable competitive advantage, even though the resource is valuable, rare, and inimitable resources (Barney, 2001).

According to research, there are three approaches researchers adopt when they apply the RBV. The first one is usually referred to as the 1991–vintage RBV approach or the resource heterogeneity approach, which has been dominant in past works of research. Studies employing this approach focus on the relationship between a specific resource, capability, or core competence and competitive advantage/performance (Newbert, 2007). One of the major limitations of this approach is that “the processes through which particular resources provide competitive advantage remain in a black box” (Barney, 2001). As Barney (2001)
further elaborated, the actions the firm should take to exploit these resources are neglected in this approach.

In response to this missing link between resource possession and resource exploitation, the organizing approach emerges to extend the RBV theoretically. This approach suggests that, in addition to simply possessing valuable, rare, inimitable, and non-substitutable resources, a firm also needs to be organized in such a manner that it can exploit the full potential of those resources if it is to attain a competitive advantage (Barney, 1997; Barney & Wright, 1998). In other words, “a firm may achieve rents not because it has better resources, but rather the firm’s distinctive competence involves making better use of its resources” (Mahoney & Pandian, 1992). The distinctive competence making the best use of resources refers to the firm-level orientation, strategy, or context that encouraged a general and unified approach to the utilization of its resources (Yan & Zhang, 2003). To be specific, all of the organizational components and factors such as structure, control systems, and compensation policies are included (Barney, 1997; Barney and Mackey, 2005). For example, much attention has paid to the role of strategy in resource exploitation (CDATA-Hitt et al., 2001; Newbert, 2007). It is suggested that the realization of the potential value of resources is dependent on the strategy of the firm and the way in which the strategy is implemented and resources are utilized (Barney & Arikan, 2001; CDATA-Hitt et al., 2001; Newbert, 2007).

The third approach is the dynamic resource-based view of the firm (Helfat, 2000; Helfat & Peteraf, 2003), which focuses on the resource side of the firm. This dynamic resource-based view incorporates the notion central to dynamic capabilities
that resources and capabilities are continually adapted, integrated, and/or reconfigured into other resources and capabilities (Eisenhardt & Martin, 2000; Teece, Pisano, & Shuen, 1997). Authors employing this approach contend that resources are of no real value to the firm in isolation (Eisenhardt & Martin, 2000). Instead, they reaffirmed that their latent value could only be made available to the firm via its idiosyncratic dynamic capabilities.

For future research, researchers (e.g., Newbert, 2007) have called for moving away from 1991–vintage RBV approach and toward the organizing approach or dynamic capability approach (i.e., testing combinative effects of a resource and either a specific organizational condition or a specific dynamic capability on performance).

B) The conservation of resources theory (COR)

As discussed before, while the RBV deals with the resources which an organization needs to realize its goals (i.e., the achievement of competitive advantage and good performance), the COR relates to resources and individual needs in order to realize and fulfill them and perform well, especially in workplaces.

According to Hobfoll (2002), resources are those entities that either are centrally valued in their own right (e.g., self-esteem, close attachments, health, and inner peace) or act as a means to obtain centrally valued ends (e.g., money, social support, and credit). In short, resources can be broadly defined as the total capability an individual has to fulfill his or her central needs. These capabilities refer to those both from oneself and the environment, including variables at the macro level (e.g.,
societal norms) and the organizational level (e.g., organizational culture and climate) (Wang, 2007).

Reviewing different types of resources studied in previous research, Wang (2007) suggested that this total capability might include physical resources (e.g., muscle strength), financial resources (e.g., income and assets), social resources (e.g., social support), cognitive resources (e.g., knowledge), and motivational resources (e.g., self-efficacy and goal commitment) (Wang et al., 2011).

The resource theory emerged as a compilation of the views of human adaptation and coping, which emphasized both the aspect of self and the aspect of social environment, such as sense of mastery and social support (e.g., Albee, 1977; Iscoe, 1974; Kelly, 1966; Sarason, 1974). Based on the early roots of studies on resource and well-being, a number of distinctive types of resource perspectives have been proffered, which are identified under the rubric of key resource theories (Hobfoll, 2002). These perspectives suggest that individuals who have more resources are related to better mental health, are more stress resistant, and experience better physical health outcomes (e.g., Antonucci & Akiyama, 1987; Brandtstadter & Renner, 1990; Christensen, Stephens, & Townsend, 1998; Cohen & Wills, 1985; House, Landis, & Umberson, 1988; Seligman, 1975; Vaux, 1988). Regarding resources, these studies focus on personality-based resources, including internal control (Seligman, 1975), mastery (Pearlin & Schooler, 1978), self-efficacy (Bandura, 1997; Christensen, Stephens, & Townsend, 1998), dispositional optimism (Scheier & Carver, 1985, 1992; Carver & Scheier, 1998), self-esteem (Hobfoll & Leiberman, 1987; Hobfoll, Nadler, & Leiberman, 1986), and characteristic degree of
goal pursuit (Brandstätter & Renner, 1990; Heckhausen & Schulz, 1995). In addition to the above key resources, researchers also study social support as a key resource since the mid-1970s. Social support is a complex meta-construct (i.e., a family of resources), which refers to the commerce of supportive interactions, perceptions of receipt of support, and aspects of the self and whether it is considered to be supported (Hofball, 2002; I. G. Sarason, Sarason, & Shearin, 1986; Vaux, 1988).

In contrast with the key resources perspective, which deals with one particular resource, some other theories are developed to examine the multi-component resource, such as the two principal multiple-component resource models and integrated resource theory models. Integrated resource theory models, which view resources as part of a greater dynamic process associated with well-being through the general use of resources (Hobfoll, 2002), include the transactional stress model (Lazarus & Folkman, 1984), the resource fit model (French, Caplan, & Van Harrison, 1982; French, Rodgers, & Cobb, 1974), Holahan and Moos’ models which supported the claim that personal and social resources must operate in tandem to aid people’s efforts in facing life threat (Holahan & Moos, 1991; Holahan et al., 1999; Holahan et al., 2000), Diener and his colleagues’ model, which emphasized cross-culture contexts (Diener et al., 1995; Diener & Fujita, 1995), and the conservation of resources (COR) theory (Hobfoll, 1988, 1989, 1998). According to Hobfoll (2002), there are three characteristics of these models. First, they look at resources broadly instead of focusing on a specific resource. Second, they view resource change in the face of stressful challenges as a key operating mechanism by which well-being and
health are influenced. Third, they view the possession of reliable resource reservoirs as critical in promoting and maintaining well-being and health.

Hobfoll’s (1989, 2002) conservation of resources theory suggests that people strive to obtain, retain, protect, and foster valued resources and minimize any threats of resource loss. This conservation process includes two parallel mechanisms. The accumulation mechanism refers to people using their resources to regulate their behaviors and actions and to exert control over their environment to gain new resources to fulfill their valued needs (Hobfoll, 2002). The protection mechanism is activated when people face situations that may lead to the loss of object, energy, and personal or social resources (i.e., primary resource loss). This mechanism may lead people to invest other resources they have to counter or compensate for the primary resource loss. To the extent that the protection mechanism depletes the individuals’ resources (i.e., secondary resource loss), they tend to adopt less efficient or maladaptive loss control strategies and a loss spiral emerges in which the resources needed to regulate emotions and behaviors deplete ever more rapidly (Bacharach & Bamberger, 2007; Hobfoll, 2002).

The achievement of positive resource conservation outcomes largely relies on the extent to which employees can regain the resources they value by investing their resources (Hobfoll et al., 2003; Holahan et al., 1999; Komorita, Aquino, & Ellis, 1989) in meeting job demands. If the resources gained from working are less than those lost from meeting job demands, secondary resource loss may occur.

Compared to other resource theory models, the conservation of resources theory has several advantages that distinguish it from most other resource-adaptation
models. First, it has a central socio-cultural component with which resources are depicted as largely socio-culturally framed rather than individualistic, and hence most perceptions are seen as common among members who share a cultural niche (Hobfoll, 1988, 1998; Hobfoll, 2002). This socio-culture component not only allows for a broader understanding of the working process of resource among those who share a social niche (Palinkas et al., 1993), but also facilitates the interaction between various types of resources; i.e., material (e.g., shelter, transportation, and food) and condition (e.g., employment and social status) resources and the more traditional self and social resources (Hobfoll, 2002).

Second, conservation of resources theory (COR) suggests that developmental processes tend to create resource caravans (Hobfoll, 2002). That is, resources, or their lack, tend not to exist in isolation, but rather will aggregate such that, for example, individuals with high self-esteem will also possess a stronger sense of mastery and have better functioning social support systems (Cozzarelli, 1993; Hobfoll, 2002; Rini et al., 1999). Finally, the conservation of resources theory has added a secondary emphasis on resource gains, whereas most resource-adaptation theories have focused on loss and negative stress circumstances. Specifically, the conservation of resources theory hypothesizes that resource gain and the accompanying positive emotions become increasingly important in the face of loss (Hobfoll, 2002).

Owing to its advantages, the COR has been adopted and examined in various contexts, such as customer mistreat (Wang et al., 2011), workplace burnout (Grandey & Cropanzano, 1999; Westman & Eden, 1997; Wright & Cropanzano,
1998), and severity continuum (Freedy et al., 1994; Ironson et al., 1997; King et al., 1999).
Chapter 4

Synergy of Organization Resources

4.1 Previous research on synergy

In the 1970s, Haken put forward the synergy theory, which has been advanced into an important theory and applied across a variety of disciplines, including physics, chemistry, astronomy, economics, sociology, and management (e.g., Haken, 1984, 1987, 2005). This theory suggests that the properties of a total system are not a mere superposition of the properties of the individual systems. Through the cooperation of subsystems, new qualities of the total system are produced (Haken, 1981). In other words, the cooperation among individual parts of a system can produce macroscopic spatial, temporal, or functional structures. According to this theory, the mutual influence and cooperative effects among the individual parts (subsystems) are referred to as synergy. Only with this synergy can the system gain order and stabilization. The notion of system can include a physical system, an organism, a subject, or an organization.

As the core of synergy theory, the concept of synergy has been applied into various fields as well. It is also used in the term “resource synergy” in management, especially strategic management. Researchers in this field most have applied the concept of resource synergy in the studies on merger and acquisition (e.g., Larsson & Finkelstein, 1999; Wernerfelt, 1984). For example, Wernerfelt (1984) argued that the value of the target organization was dependent on the degree of resource synergy between this organization and the buyer organization. Larsson and Finkelstein (1999)
suggested that the success of a merger or acquisition was gauged by the degree of synergy realization, which was dependent on the similarity and complementarity (combination potential) of the two organizations, the extent of interaction and coordination during the organizational integration process, and the lack of employee resistance to the combined entity.

Other researchers focused on resource synergy within an organization, especially in terms of the synergy between organization strategy and organization resources. For instance, the alignment between information systems with organization strategy was suggested as an important type of synergy (Bharadwaj, 2000; Jarvenpaa & Leidner 1997). Mahoney and Pandian (1992) used synergy as a criterion for organizations to select from the strategy of related diversification or unrelated diversification. They suggested that firms acquiring related diversification should experience higher rents relative to unrelated diversification because of the greater likelihood of synergy (efficiency or market power) (Chatterjee, 1990; Mahoney & Pandian, 1992). This is because the firm’s existing resources can generate synergy with the related diversification strategy; therefore, the firm’s efficiency can be enhanced.

The authors further stated that there are two types of synergy: contestable synergy and idiosyncratic bilateral synergy:

*Contestable synergy involves a combination of resources that create value but are competitively available. Idiosyncratic bilateral synergy is defined as the enhanced value that is idiosyncratic to the combined resources of the acquiring and target firm. Only in the case of idiosyncratic bilateral synergy is the achievement of rents theoretically possible through synergy. Our argument is that financial synergy to be achieved with unrelated diversification is more likely to be contestable synergy while related diversification offers greater potential for idiosyncratic bilateral synergy (Mahoney & Pandian, 1992, p.368).*
In addition to the synergy generated by strategy and organization resources, researchers also paid attention to other instances of resource synergy in organizations. For example, Chen and Chen (2013) defined the cycle between the utilization and investment in innovation resources and financial resources as innovation resource synergy. Researchers in human resources highlighted the synergy of the human resource system, which was referred to as the internal consistency or fit among the human resource activities (Arthur, 1994; Huselid, 1995; MacDuffie, 1995). These works of research suggested that the various human resource activities within a human resource system must fit and support each other rather than function in isolation (Youndt et al., 1996).

4.2 The definition of resource synergy in this research

Based on the research on synergy, I define the concept of resource synergy as the most efficient and effective coordination and coherence between a focal organization resource and certain synergy-relevant variables, which include both other organization resources and other factors built on organization resources (such as firm strategy and leadership). As argued above, good organization strategy and leadership should be developed based on organizational resources while taking into account the effects of environmental and situational factors. Because of the effects of these environmental and situational factors, the number and nature of these synergy-relevant variables vary case by case. In some environments and situations, the advantage that “one plus one is greater than two” can become feasible with only
a small number of synergy-relevant variables, and the same may not be true given other environments and situations.

With the joint effect of a certain number of synergy-relevant variables, the focal organization resource can be better deployed, leading to more competitive advantages and improvement of financial performance eventually. On the contrary, if the interactions between the focal organization resource and synergy-relevant variables are discrete, contestable, and full of friction, the value of these resources can’t be realized fully, and the organization may suffer from resource loss.

Since this research focuses on women as a human resource, the concept of resource synergy here mainly deals with the cooperative effects between human resource and other synergy-relevant variables. The value of human resources is more likely to be fully realized with the coordination and support of these variables. In other words, only with certain cooperative and supportive effects between human resources and these synergy-relevant variables can the organization make full use of the experience, insights, knowledge, and skills existing among the employees.

Among the synergy-relevant variables, I focus on several that are frequently suggested as significantly influential on the utilization of human resources, such as organization strategy, organizational culture, leadership, and task characteristics (e.g., Chatman et al., 1998; Hillman, Shropshire, & Cannella, 2007; Lepak, Takeuchi & Snell, 2003; Richard & Kirby, 1997; Richard, 2000). Specifically, the significance of strategy and leadership is highlighted here because they are developed based on organizational resources and should be contingent on the environmental and situational factors that are uncontrollable to an organization.
According to this definition, it is arguable that synergy of resources cannot be generated unless an organization has good strategy and leadership.

Moreover, since strategy and leadership are contingent on the environmental and situational factors that are uncontrollable to an organization, it is also necessary that certain important environmental and situational factors should be taken into account when considering the issue of resource synergy. As suggested by previous research, organization culture, as a type of environmental factor, is a powerful social control system which exerts strong influence on employees’ coherent and predictive behaviors (Williams & O’Reilly, 1998). Through certain cultural elements, such as rituals, heroes, routines, and managerial values, organizational culture has a great impact on the organization and its employees, such as the acceptance degree of difference, and attitudes and behaviors towards conflict (Deal and Kennedy, 1982; Merron, 1995). Therefore, culture should have great potential to impact the utilization of women resources. In addition, certain situational factors such as task characteristics can also influence the exploitation degree of human resources. Task characteristics not only influence employees’ work motivation, but also affect the interdependence and interactions among coworkers. For example, employees are more likely to collaborate with each other and have less conflict when the job/task is designed with shared objectives rather than independent ones (Wageman, 2001; Williams & O'Reilly, 1998).

According to the above discussion, resource synergy is desirable and attractive, but organizations can’t reach it automatically or easily. Organizations should pay attention to the synergy-relevant variables which help realize resource synergy. This
is in line with previous research suggesting that it is not the resource only but also the ability to exploit the full potential value of resources that brings about sustainable competitive advantage (Barney & Arikan, 2001; CDATA-Hitt et al., 2001; Newbert, 2007).

One point worth making is that this research examines the issue of women resource synergy at both the macro level and micro level. Specifically, this research studies the effects of resource synergy not only on organization performance, but also on women’s individual performance.

In the next section, I’ll briefly review previous research on the synergy between human resources and these synergy-relevant variables and the positive effects of resource synergy on organization performance.

4.3 Synergy of human resources and organization performance

As discussed before, human resources have been widely recognized as among the most important resources within organizations. Compared to the competitive advantage generated by human resources, that generated by other sources of competitive advantage, such as technological and physical resources, is much easier to be copied and obtained by other organizations. This is because human resources are usually characterized as causally ambiguous, socially complex, and historically evolved (Boxall, 1996; Lippman & Rumelt, 1982; Wright, Dunford, & Snell, 2001), which create high imitation barriers for the competitors. Therefore, human resources are suggested to be the crucial differentiating factor between organizations (Pfeffer, 1994). Indeed, there is abundant evidence showing the strong link between human
resources and organizations’ competitive advantage and financial success eventually (e.g., Hartenian & Gudmundson, 2000; Kearney, Gebert, & Voelpel, 2009; Prahalad, 1983; Pfeffer, 1994; Richard, 2000; Richard, Ford, & Ismail, 2006; Wright, McMahan, & McWilliams, 1994; Youndt et al., 1996).

As a result of the importance of human resources, many organizations have placed human resource issues at the center of their strategic mission and vision (Schuler, 1990; Ulrich & Lake, 1991; Wright, Dunford, & Snell, 2001). With the development of practice and theory, it is clear that, no matter how valuable the resources are, what really matters is the combinations of human resources with other organization variables (Lepak, Takeuchi & Snell, 2003). For instance, it’s important that elements of the human resource system be internally consistent and synergistic (Arthur, 1994; Huselid, 1995; Lado & Wilson, 1994; MacDuffie, 1995). However, the synergy within the human resource system is not enough to generate competitive advantage. Researchers have expanded the synergy scope beyond the control of the HR function (both upward and downward), suggesting that human resources should be utilized in conjunction with other variables, such as strategy, culture, leadership, and a host of other aspects that impact employees and shape their competencies, cognitions, and attitudes (Hillman, Shropshire, & Cannella, 2007; Lepak, Takeuchi & Snell, 2003). To get a deeper understanding of the better utilization of human resources, I’ll review the synergy between human resources and strategy, culture, task characteristics, and leadership, which are all well documented in the literature (e.g., Barney and Wright, 1997; Chatman et al., 1998; Richard, 2000; Wright, Dunford, & Snell, 2001; Zhu, Chew, & Spangler, 2005) and defined as synergy-
relevant variables in this research. I’ll mainly focus on the synergy between diverse human resources and these synergy-relevant variables, for this research focuses on the utilization of women, the increase of whose proportion usually brings about more gender-diverse human resources in organizations.

4.4 Organizational strategies and resource synergy

The synergy between strategy and human resources has long been emphasized, since it determines the amount of emphasis and resources allocated to various organizational elements and involves individuals across all levels and functional areas (Burgelman, 1983; Delery & Doty, 1996; Doty, Glick, & Huber, 1993; Ruekert & Walker, 1987). Actually, the importance of this synergy has given rise to the advent of strategic human resource management (SHRM), which is devoted to exploring the relationship between human resources and business strategy (Devanna, Fombrum & Tichy, 1984; Walker, 1978; Wright & Snell, 1991; Wright, Dunford, & Snell, 2001).

To capture the supportive and coordinative relationship between human resources and organization strategy, numerous studies have been conducted, providing evidence that the human resources that help implement an organization’s competitive strategy are sources of sustained competitive advantage. It is suggested that human resources exert more positive effects on organizational performance when they are matched with the competitive requirements inherent in an organization's strategy (e.g., Cappelli & Singh, 1992; Chan, Shaffer, & Snape, 2004; Huselid, 1995; Jackson, Schuler, & Rivero, 1989; Miles & Snow, 1984; Wright,
4.5 Organizational leadership and resource synergy

According to research, leadership may work together with human resources to enhance individual and organizational performance (Zhu, Chew, & Spangler, 2005). At the same time, leadership is well recognized as extremely significant in the management of human resources (Burns & Otte, 1999; Liu et al., 2003; Sims &
Manz, 1996), with the responsibility to foster the full utilization of the human resources (Kearney & Gebert, 2009).

On the one hand, leaders are suggested as an important source of managerial rents and hence sustained competitive advantage for the organizations. This is because leaders are the key decision makers who determine the acquisition, development, and deployment of organizational resources (Avolio, 1999; Lado, Boyd, & Wright, 1992; Rowe, 2001). To be specific regarding the utilization of human resources, leaders play a critical role in translating organization strategy into employees’ daily work, developing and leveraging human resources to serve strategic needs (Roepke, Agarwal, & Ferratt, 2000). On the other hand, due to leaders’ ability to reward, punish, as well as proximately communicate with employees (Brown & Treviño, 2006), leaders have the power to greatly influence employee attitudes and behavior (Bandura, 1986), including employee motivation, satisfaction, turnover intention, and work performance (Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996). Employees’ attitudes and behaviors are critical for the generation of competitive advantage, because the competencies, skills, and experiences are mastered by the employees. In other words, only skilled employees with willingness (i.e., motivation) to exhibit productive behavior can the human resources be deployed by the organizations, thus leading to competitive advantages and improved human resources (Wright, McMahan, & McWilliams, 1994; Wright, Dunford, & Snell, 2001).

Research evidence supporting the important role of leadership is replete in the literature. For example, Liu and coauthors (2003) suggested that leadership style
should fit with the requirements of different employee groups in order to make better use of human resources. Campion and coauthors (1996) found that managerial support moderated the positive effects of employees with various experience on organization performance. Roepke and coauthors (2000) highlighted the important role of leadership in the alignment between IT human resources and business revision.

Jackson and Joshi (2004) suggested that managers were especially important because they were responsible for the implementation of organizational policies. Their empirical evidence showed that managers’ demography influenced the effects of group demography on performance: the mismatch between leader-employee demography was associated with lower perceived performance, which was in line with previous results of lower levels of attraction from the supervisor and greater role conflict and ambiguity (Tsui & O'Reilly, 1989).

Kearney and Gebert (2009) found that, when levels of transformational leadership were high, nationality and educational diversity were positively related to team leaders’ longitudinal ratings of performance. However, age diversity was not related to performance when transformational leadership was high, and it was negatively related to performance when transformational leadership was low. Moreover, the authors also found that transformational leadership moderated the relationship between the three examined diversity dimensions and two variables: the elaboration of task-relevant information and collective team identification.

4.6 Organizational culture and resource synergy
Organizational culture is defined as the common set of shared meanings or understandings about an organization, including shared values, recognized standards, and norms about patterns of group members’ behaviors (Chatman & Jehn, 1994; Reichers & Schneider, 1990; Rousseau, 1990; Triandis & Suh, 2002). According to research, for human resources to be fully exploited, a supportive organizational culture is highly needed (Chan, Shaffer, & Snape, 2004). This is because organizational culture is a powerful social control system which exerts strong influence on employees’ coherent and predictive behaviors (Williams & O’Reilly, 1998). Through certain cultural elements, such as rituals, heroes, routines, and managerial values, organizational culture also has a great impact on resource investment and allocation (Deal & Kennedy, 1982; Merron, 1995).

Some researchers have paid attention to the important role of culture in the utilization of employees with high demographic diversity in multiple dimensions, such as race, education, and functional background (e.g., Brickson, 2000; Ely & Thomas, 2001; Cox, 1993). Some researchers suggested that supportive cultures, such as those reinforcing positive views of diversity and rewarding its presence and successful management, were beneficial for the utilization of employees with diverse demography (O’Reilly & Chatman, 1996). For example, Chatman and Barsade (1995) noted the necessity of organizational culture that fostered cooperation and commitment. O’Reilly and coauthors (1997) suggested that an organizational culture supporting ethnic diversity had positive effects on performance. Similarly, it was found that a culture which viewed diversity as an opportunity to learn rather than as a legal requirement or fairness treatment could be
more beneficial for the effects of diversity on performance (Thomas & Ely, 1996; Ely & Thomas, 2001).

In addition to the research findings listed above, other researchers study the effects of cultural dimensions on the utilization of human resources. For example, Chatman and her coauthors (1997) found that groups with a collectivistic culture were more likely to consider the conflicts aroused from group heterogeneity. Thereafter, Chatman et al. (1998) found important differences in the diversity–performance relationship in environments characterized by individualistic versus collectivistic cultural values. Van Der Vegt and coauthors (2005) suggested that employees with diverse organizational tenure and functional background were negatively related to organization performance when power distance was high. Jehn and Bezrukova (2004) found that members of groups diverse in functional background were paid higher composite bonuses when their workgroup context emphasized people-oriented cultures.

4.7 Organizational task and resource synergy

Task characteristics are important for organizations to make full use of their human resources in three ways. First, task is the specific object towards which employees utilize their capability, knowledge, and skill; thus, it influences the degree to which organizations take advantage of these resources. Second, task characteristics impact employees’ individual attitudes and work-related outcomes, such as motivation, job satisfaction, and job dedication. Third, task characteristics also have an impact on interpersonal relationships between employees. For example,
employees are more likely to collaborate with each other and have less conflict when the task is conducted with shared objectives rather than independent ones (Wageman, 2001; Williams & O'Reilly, 1998).

In the field of demographic diversity, researchers also attach high importance to task characteristics because they define the degree of interpersonal interactions, which are related to the effects of diversity on performance. For example, researchers suggest that diversity is often beneficial for tasks that require creative problem solving but that it can interfere with performance on routine tasks (Jackson, 1992; Pelled, Eisenhardt, & Xin, 1999). Moreover, studies discovered the moderating role of task complexity; for example, Jehn et al. (1999) found that informational diversity was positively related to performance when task complexity was high rather than low. Wegge et al. (2008) also showed that task complexity moderated the age/gender diversity-group performance relationship.

The meta-analysis by Bowers et al. (2000) similarly suggested that diverse groups could outperform homogeneous groups on difficult tasks, whereas homogeneous groups might in fact outperform diverse groups on more simple tasks. Timmerman (2000) found that age diversity was unrelated to performance when the task required little interdependence, and it was negatively related to performance when the task required more interdependence. Finally, Pelled et al. (1999) suggested the moderating role of task routine in the relationship between age, tenure, functional diversity, and team conflicts.
Chapter 5

Women as Organization Resources and Organization Performance: Prior Research Findings

As I mentioned before, the research on women as resources for organizations is rare, and most of the previous research explored this issue with a focus on the topic of gender diversity. Given the fact that the workforce was mostly dominated by the male, mostly gender diversity refers to including more women to get gender-diverse human resources in organizations. Hence, most of the research can provide implications for the research on women resource utilization (including more women in the organizations).

Researchers have been studying the effects of including more women on organization performance since the 1970s (e.g., Byrne, 1971). However, most of the works of research study the effects of including more women together with those of including more employees with different dimensions of demographic diversity, such as race and age (e.g., Herring, 2009; Richard, Ford, & Ismail, 2006). Moreover, the research findings are inconsistent and mixed, ranging from positive (e.g., Carter, Williams, & Reynolds, 1997; Welbourne, Cycoyta, & Ferrante, 2007) to insignificant (e.g., Marimuthu & Kolandaisamy, 2009; Miller & Del Carmen, 2009) and from curvilinear (Richard et al., 2004) to negative (e.g., Chuang, Nakatani, & Zhou, 2009).
Below, I first provide a brief review of these research findings on the main effects of including more women and then the variables with which women can generate synergy to enhance their positive effects.

5.1 Research findings showing a positive relationship

According to some researchers, comparing to their male counterparts, women have their own beneficial attributes. For example, women tend to focus on relationship development rather than outcomes, and they usually emphasize nurturing and caring (e.g., Lewis & Cooper, 1999; Omar & Davidson, 2001). Such attributes can smooth communication with coworkers, cultivate interpersonal relationships, and reduce friction with others. In support of this advantage, Wegge and coauthors (2008) found that including more women in the employees was positively related to organization members’ well-being.

More researchers suggested that including more women in the workforce may provide many benefits related to information collection and decision making. Women also possess unique advantages, such as a feeling-cognitive style, good networking skills, and multitasking abilities (Hurst et al., 1995). Thus, with women’s participation, more resources can be provided, such as more comprehensive information (including experience and knowledge), different perspectives of an important strategic issue, and better understanding of the preferences and demands of the organization’s customers (e.g., Campell & Mingues-vera, 2008; Li et al., 2011). In addition to this larger pool of resources, increased inclusion of women also has other beneficial effects. The existence of conflicting
viewpoints from men and women may force the organization to process task-relevant information more thoroughly and carefully, which helps prevent decision and action mistakes. In addition, exposure to diverging and potentially surprising perspectives may lead to more creative and innovative ideas and solutions (Ancona & Caldwell, 1992; Bantel & Jackson, 1989; De Dreu & West, 2001; van Knippenberg et al., 2004). As a result of these benefits, increased numbers of women in the workforce can lead to certain positive outcomes, including the improvement of decision quality (Carter, Williams, & Reynolds, 1997) and team performance (Choi, Price, & Vinokur, 2003; Wegge et al., 2008).

In addition, researchers also suggested that including more women in management was related to a variety of positive results, such as stock price growth and growth in earnings per share for initial public offering (IPO) corporations (Welbourne, Cucyota, & Ferrante, 2007), higher return on equity total and return to shareholders (Thomas, Arthur, & Hood, 2004), and other higher organization financial performance (Carter, Simpkins, & Simpson, 2003; Catalyst, 2004; Cordeiro & Stites-Doe, 1997; Dezsö, & Ross, 2012; Krishnan & Park, 2005; Richard et al., 2004).

In addition, only a handful of studies have reported the effects of including more women on performance at the organization level. The research conducted by Herring (2009) tested the effects of including more women and individuals from various races, finding that the increase of employees from these groups was positively related to an organization’s performance, such as sales revenue, market share, and number of customers.
5.2 Research findings showing a negative relationship

There are relatively many more works of research reporting the negative effects of including more women in the workforce compared with those reporting the positive effects (Jackson & Joshi, 2003; Rentsch & Klimoski, 2001). Many researchers suggest that including more women in the workforce should lead male and female employees to perceive more dissimilarity with each other. Since humans tend to share mutual attraction and affiliate and work with individuals whom they perceive as similar to themselves, such perceptions usually make employees feel less mutual attraction and may lead them to be less friendly toward each other, which may bring about less communication, more emotional conflicts, etc. (e.g., Alagna, Reddy, & Collins, 1982; Byrne, 1971; Harrison et al., 1998; Jehn, Northcraft, & Neale, 1999). Moreover, owing to women’s long-term membership in a group of low social status, the male group is likely to discriminate against women. The hostility to women can be further strengthened when the men view women as in competition with them (Wegge et al., 2008).

Based on the above arguments, empirical evidence supporting the negative effects of including more women in the workforce is replete. For instance, research showed that the increase of the proportion of women in the workplace brought about lower cohesion (e.g., O’Reilly, Caldwell, & Barnett, 1989; Riordan & Shore, 1997; Tsui et al., 1992), less communication (Ancona & Caldwell, 1992), more social isolation (Kirchmeyer, 1995), higher emotional conflicts (Jehn Northcraft, & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999), a lower level of support (Drach-Zahavy & Somech, 2002), and a lower level of empowerment (Kirkman, Tesluk, & Rosen,
These negative effects further led to harmful work-related outcomes, including lower job satisfaction and commitment (Schippers et al., 2003), stock price reaction (Lee & James, 2007), and lower performance and effectiveness (e.g., Chuang, Nakatani, & Zhou, 2009; Drach-Zahavy & Somech, 2002; Ely, 2004; Harrison et al., 2002; Jehn & Bezrukova, 2004; Kirkman, Tesluk, & Rosen, 2004; Mayo, Pastor, & Meindl, 1996; Pelled, Eisenhardt, & Xin, 1999; Schippers et al., 2003; Van Der Vegt, Van De Vliert, & Huang, 2005).

5.3 Research findings showing other relationships

In addition to the research findings above, some studies also report different relationships between including more women in the workforce and performance. Richard and coauthors (2004) found a U-shaped curvilinear relationship between including more women (and racial minorities) in management and organization performance. The authors found that, when the proportion of women was low or high, members tended to communicate with each other frequently and share views, which led to enhanced satisfaction and cooperation and decreased emotional conflicts. However, when the proportion of women increased to a moderate degree, significant cultural barriers to social intercourse and positive social associations were generated, which hindered the organizational performance significantly.

In addition, more researchers reported neutral relationships between including more women and performance (e.g., Marimuthu & Kolandaisamy, 2009; Miller & Del Carmen, 2009; Richard, Kirby, & Chadwick, 2013). These studies suggested that, only under certain conditions could the increase of women influence
performance; otherwise, the relationship between the two variables was neutral (Ely, 2004; Jackson & Joshi, 2004; Jehn & Bezrukova, 2004; Reagans, Zuckerman & McEvily, 2004). I’ll review these research findings briefly below.

**Task characteristics.** It is found that including more women was more likely to lead to positive outcomes when the task complexity was high rather than low (Jehn, Northcraft, & Neale, 1999; Wegge et al., 2008). Moreover, researchers found that the increase of proportion of women was positively related to performance when the task required high interdependence, and it was negatively related to performance when the task required little interdependence (Jehn, Northcraft, & Neale, 1999; Schippers et al., 2003; Timmerman, 2000). In addition, Pelled et al. (1999) suggested the moderating role of task routineness in the relationship between gender diversity and interpersonal conflicts. Finally, Van Der Vegt, Van De Vliert, and Huang (2005) found that job type and job challenge were both important moderators influencing the effects of including more women in the workforce.

**Leader characteristics.** Jackson and Joshi (2004) suggested that the demographic characteristics of the team manager moderated the effects of including more women in the workforce. More specifically, some researchers found that factors such as leader-member demographic match, leader tenure, and leader age all had moderating effects on the relationship between including more women and organization performance (Kirkman, Tesluk, & Rosen, 2004; Mayo, Pastor, & Meindl, 1996).

**Culture.** Researchers suggested that certain supportive cultural elements help utilize the positive effects of women on performance, such as the degree of power
centralization (Bunderson, 2003), cooperative process (Ely, 2004), an inclusive work culture that enhances employees’ performing capacities, and the integration of feminine values with masculine values (Syed & Murray, 2008). Moreover, Dwyer, Richard, and Chadwick (2003) suggested that the effects of including more women in TMTs interacted with two key organizational variables—organizational culture and the strategy of growth orientation. They found that the positive effects of women were enhanced when the organizations’ culture (a clan and adhocracy emphasis) could serve to further support a diverse work group. Finally, Jehn and Bezrukova (2004) examined the moderating roles of cultures (people- and competition-oriented), suggesting that the people-oriented culture was more favorable for including more women among the employees.

Strategy. Richard et al. (2004) found that organization-level entrepreneurial orientation and innovativeness orientation positively moderated the effects of women in management while risk-taking orientation negatively moderated the effects. Moreover, Dwyer and coauthors (2003) suggested that the effects of including more women interacted with the strategy of growth orientation, suggesting that the positive effects of women could be enhanced when the organizations adopted the strategy of growth. In addition, Dezsö and Ross (2012) found that the proportion of women in the TMT enhanced both the effectiveness of the TMT and the middle management team and thus could lead to better organization financial performance. This result was found to be contingent on the extent of the organization’s strategy focused on innovation. Finally, Richard and coauthors (2013)
suggested that only with a high level of participative strategy did the increase of the proportion of women benefit the organization’s financial performance.

Other contextual variables. Other works of research reported the moderating effects of other organizational variables. For example, several studies indicated that the effects of including more employees with diverse demographic characteristics were moderated by temporal factors (e.g., Carpenter, 2002; Harrison et al., 1998; Pelled et al., 1999; Schippers et al., 2003). Harrison and coauthors (2002) showed that time weakened the effects of including more women in the workforce. Moreover, Richard, Ford, and Ismail (2006) suggested that the effects of including more women in the workforce, together with racial diversity, were contingent on an organization’s managerial span of control and life-cycle stage. Specifically, with the same level of the proportion of women, organizations with narrow spans of control have higher performance than those in structures with a broad span of control, and organizations in earlier stages have higher performance than those in later stages.

Based on the above review, one can find that the discrepancies between the mixed research results can often be explained by four sets of contingencies; i.e., strategy, culture, task characteristics, and leader-related issues. This is also in line with recent review papers in this field, which suggest that these four sets of organization variables have attracted great attention among previous researchers (e.g., Bell et al., 2010; Jackson, Joshi, & Erhardt, 2003; Joshi & Roh, 2009).
Chapter 6
Resource Synergy and the Inequality for Women

As I discussed in the introduction of this thesis, inequality is suggested as one of the greatest barriers for women in workplaces and also for organizations to taking advantage of women resources (e.g., Burlew & Johnson, 1992; Luzzo, & McWhirter, 2001; McWhirter, 1997; Melamed, 1995; Shaffer et al., 2000; Swanson & Tokar, 1991). In other words, inequality may prevent organizations from making use of women resources and can lead to resource loss.

In this section, I review previous research findings regarding the inequality situation for women. Since I conduct this research in China, I review these research findings based worldwide (especially East Asia) and in China.

6.1 Research on the effect of inequality on women’s performance worldwide

A) The inequality situation for women all over the world

Inequality for women is a serious issue worldwide. Despite many successes in the elimination of inequality, numerous examples of this issue still exist widely in workplaces all over the world, not only in countries where religion is law, such as many Muslim countries, but also in well-developed countries such as the US. For example, in the US, women held only 14.8% of board seats in Fortune 500 companies (Catalyst, 2007). And the percentage of female directors in Australia, Canada and Europe is estimated to be 8.7%, 10.6% and 8%, respectively (Adams& Ferreira, 2009; Equal Opportunity for Women in the Workplace Agency (EOWA),
Inequality in workplaces affects girls and women throughout their lifetime, including but not limited to unequal pay, less promotion opportunities, less access to mentors, and unequal evaluations (Shah, 2010).

For instance, two-thirds of the women in the United States work in female-dominated occupations, such as clerks, secretaries, and nurses, and in the public sector, characterized by low job ceilings and short career ladders (Jacobs, 1985; Fagenson & Jackson, 1993; The Glass Ceiling Commission, 1997). Women working full time earn about 76% of the wages of men working full time (Wall Street Journal, 1998). In East Asian countries, including Korea, Singapore, Japan, and Taiwan, which are deeply influenced by Confucianism, the situation of inequality for women is even worse than in Western countries. In fact, Confucian values about women have long been criticized by feminists and some academics for the negative effects they have exerted on gender equality in East-Asia countries (e.g., Lee, 2000; Palley & Gelb, 1994).

Confucianism clearly presumes different gender roles between men and women in society and in family relations. Women are considered as the caregivers to the family, carrying huge responsibilities for the care of children and the elderly (parents-in-law in particular), while men are the breadwinners (Sung, 2003). Moreover, Confucianism held a low opinion of women. Confucius (551–479 BC), who was arguably the greatest philosopher in China, said that “women and small-minded men are hard to deal with.” In the Confucian book of Yi Jing (the ancient book of Confucianism), the hierarchical relationship between men and women is
described as “heaven” (men’s position) and “earth” (women’s position) (Son, 2006). Women are described as inferior and subordinate to men. As a result of the “deficiency” of women, they have to follow “the rule of the three-fold obedience”: “obedience to the father in childhood, to the husband during marriage, and to the son in old age.” (Kim, 1976). In a word, woman’s subordination to man was supposed to be a moral law.

According to the Confucian values, women’s goal in life is to achieve the highest level of “feminine” virtues, such as filial piety, loyalty, chastity, and fidelity. Therefore, women’s virtue should focus on keeping family life in harmony instead of cultivating themselves (Yao, 2000). In other words, it is women’s obligation to benefit men, the dominant group, and their lives.

As a result of Confucian values, the extent to which women’s situation in workplaces has changed is questionable in East-Asian countries where the traditional Confucian ideas about the role of women still remain in force (Sung, 2003). First, women are not provided with equal opportunities in employment, which leads to low labor participation rates for women. The gaps between men’s and women’s employment rate are notably high in Japan, Korea, and Taiwan. About 80% of men are employed, while among women the figures are 53% in Korea, 60% in Japan, and 47% in Taiwan (Wu, 2007). These figures are below the OECD average and well below Scandinavian countries, such as Iceland and Norway (Pascall & Sung, 2007). Moreover, a large number of women participating in the workforce in these countries are just low-paid part-time workers. For example,
Japanese organizations are motivated to create part-time flexible jobs for women to meet legal requirements (Omar & Davidson, 2001).

Second, women are not treated equally within organizations. They are not paid equally for the work they have done equal to that of their male counterparts. For example, despite gender segregation and lower education levels, full-time female employees in Taiwan earn 86% of the monthly wages of men (Tai Wan Census and Statistics Department, 2013). Moreover, Confucian culture for gender regimes has impacted welfare policy making. For instance, in these countries, it is women who take parental leave to take care of children, rather than their husbands, since women are considered to be the main caregivers. In Japan, family policy is designed to encourage mothers to be more active in their children’s welfare and education. In addition, the informal practice is illegal, but many Japanese organizations do force women to retire upon marriage or pregnancy (Omar & Davidson, 2001).

Third, in these countries, women also are questioned for their capability and sustainability for managers. According to a recent released survey, the percentages of women in TMTs in Japan and Korea are 0.9% and 1.9%, respectively, which are far lower than the average level of 21% in the world. This is because they are usually considered as less capable than male workers, with weaker adaptability and poorer mobility (Powell, 1993; Vinkenburg, Jansen, & Koopman, 2000). Moreover, there exists sanctions either against women working or against women holding jobs that give them power over and prestige above men (De Leon & Ho, 1994; Chan & Lee, 1994; Lim, 1993; Tayeb, 1997).
B) Research findings worldwide on the linkage between inequality and women’s performance

Based on the above review of gender inequality, it is obvious that the situation of gender inequality is still severe all over the world, especially in the East Asian countries on which I focus. Inequality for women, although in different ways, does prevalently exist. What’s more, this inequality will continue to exist for a very long time. As a result of this situation, inequality should be the greatest long-term concern for women all over the world.

According to previous research, women tend to be more aware of inequality in the workplace than men, owing to their membership in a long-term disadvantaged social group (Ngo, Tang, & Au, 2002; Trentham & Larwood, 1998). In other words, women in workplaces should be more sensitive to the issue of inequality as a result of more cumulative negative experiences of being unequally treated (Cole & Singer, 1991; Satterfield & Muehlenhard, 1997), regardless whether the inequality is based on gender or not.

For instance, women are urged to rely more than men do on organizational equality, especially that in formal procedures and systems (Sweeney & McFarlin, 1997). This is because women have been the object of discrimination for a long time, a pattern that has translated into fewer rewards, fewer resources, and fewer opportunities (Kanter, 1993; Wentling, 1997). Therefore, women lack access to the informal mechanisms that men often possess to get things like pay raises and promotions (Sweeney & McFarlin, 1997). For example, women are less likely to have access to powerful mentors and the informal, male-dominated communication
networks and processes that drive top management decision making in many organizations (Powell & Mainiero, 1992; Sweeney & McFarlin, 1997). This may force women to rely on formal procedures and mechanisms to get ahead.

Based on the above discussion, one can determine that the issue of inequality is very important in the utilization of women in organizations. A few studies have focused on the negative effects of inequality on women, mostly reporting women’s psychological symptoms such as anger, tension, sadness (Goldenhar et al., 1998), lowered feelings of acceptance (Ilgen & Youtz, 1984; Wentling, 2003), lowered self-confidence (Satterfield & Muehlenhard, 1997) and high life stress (Shaffer et al., 2000). There was some evidence, albeit limited, showing that inequality led to lowered job satisfaction and high turnover intentions (Foley et al., 2002; Foley, Hang-Yue, & Wong, 2005; Shaffer et al., 2000). However, some researchers suggested the opposite conclusions—women could be satisfied with their jobs even though they were treated unequally compared with men (Mcduff, 2001). These researchers argued that this was because women had low expectations regarding job entitlements and rewards owning to their long-term disadvantaged social status (Foley, Hang-Yue, & Wong, 2005; Major, 1994).

At the same time, another stream of previous research examined the effects of equality on women in organizations. However, most of these works of research were devoted to comparing the difference between women and men in their perceptions about and reactions to equality, rather than concentrate on women’s reactions to equality issues. These studies often suggest that women have different emphasis on equality issues compared to men (e.g., Brockner & Adsit, 1986; Cohen-Charash &
Spector, 2001; Kulik et al., 1996). For instance, many researchers suggested that women and men weighted equality in various aspects differently (e.g., Brockner & Adsit, 1986; Foley, Hang-Yue, & Wong, 2005; Fields et al., 2000; Lee & Farh, 1999; Jepsen & Rodwell, 2012). Whereas women attached more importance to procedural justice rather than distributive justice, the opposite occurred among men (e.g., Sweeney & McFarlin, 1997; Brockner & Adsit, 1986; Foley, Hang-Yue, & Wong, 2005; Fields et al., 2000; Nurse & Denvonish, 2007). Jepsen and Rodwell (2012) found that women placed more importance on informational justice while men focused on interpersonal justice.

With respect to equality in distribution and procedure, women were also suggested to have different perspectives and perceptions. For example, it was suggested that women’s major concern in reward allocation was maintaining the welfare of all group members, while men’s was protecting their own interests (Leventhal & Lane, 1970). Kulik et al. (1996) suggested that women would perceive procedures that favor social harmony (e.g., neutrality) as fair, since they were more sensitive to interpersonal issues, whereas men would perceive procedures that reflect contributions (e.g., control) as fair and would be more influenced by outcome favorability, since they were more sensitive to material outcomes.

However, there are also other works of research providing contradictory evidence, indicating the complexity of this issue and the need of more research to study women’s reactions to equality issues in organizations. For example, many researchers also showed that there was no significant difference between men and women in equality perceptions, suggesting that distributive equality was as
important or even more important to women (e.g., Lee & Farh, 1999; Lee, Pillutla, & Law, 2000; Lind & Tyler, 1988).

6.2. Research on how inequality affecting women’s performance in China

A) The legal system to protect female employees in China

Like other East Asian countries, there is a long history of gender inequality for women in China. Women have been considered as inferior to men and are expected to devote themselves to families rather than pursue careers. The situation for women has changed significantly after the establishment of socialist power in 1949. As the leader of this power, Chairman Mao used to say that women could hold up half the sky, and since then, it has been assumed that all women in China should work. Below I provide a brief review on the legal system established to eliminate gender inequality.

After the establishment of the People’s Republic of China in 1949, elimination of inequality against women has been high on the agenda, and the social status of Chinese women has been improved significantly. The Chinese government has established a legal system to eliminate inequality against women and to protect their interests and rights. This legal system consists of a series of legal and administrative regulations and official policies, including the Labor Insurance Regulation of the People’s Republic of China (1953), The Announcement on Female Workers’ Production Leave by the State Council (1955), Female Employee Labor Protection Regulations (1988), and the Labor Law of China (1994). In addition, the Chinese government has also signed up for a number of International Labor Conventions.
related to the protection of women and equal opportunity. For example, China has
signed the UN Convention on the elimination of all forms of inequality against
women (Cooke, 2001). However, many researchers criticized that this legal system
is more a statement of intent rather than a guarantee of rights (Pearson, 1995) with a
lack of penalties and general imprecision (Pearson, 1995).

To respond to the criticism and cope with the changes caused by the rapid
economic development, the Chinese government has revised and improved the
relevant provisions of the laws. For instance, the PRC Law on Protecting Women’s
Rights and Interests (1992) was revised in 2005. The new edition of this law not
only added some general principles of eliminating inequality against women (e.g.,
improvement of women’s political status), but also specified regulations to protect
their interests and rights as employees. A provision that addressed the role of the
Women’s Union in protecting women’s rights and interests, such as making laws
and regulations regarding women, was added to this edition. The new edition of this
law also specified that employers should sign labor contracts with female employees,
where no restrictions about their marriage and pregnancy would be made. Moreover,
it stipulated that the government would improve the labor protection regulations;
e.g., labor insurance.

In the newest edition of Female Employee Labor Protection Regulations (2012),
the major revisions were made in terms of three aspects. First, it enlarged the scope
within which women were prohibited from work during special periods; e.g.,
pregnancy and breastfeeding. For instance, employers were not allowed to request
that women who are pregnant and breastfeeding work at night. Second, it specified
regulations about maternity leave. Regulations were revised to extend maternity leave with full pay. Moreover, women were entitled to miscarriage leave for the first incidence. It also extended breastfeeding time from 30 minutes to 60 minutes during work hours per week day. In addition, it stipulated that employers should arrange for gynecologic examinations at least once every two years. Third, it emphasized that departments of the government should each do their own part and work together to improve the supervision and management system. For example, the department of human resources and social security should take charge of labor contracts, work hours, and social insurance, while the department of safety should be responsible to invigilate the implementation of the regulation to ensure safety. Moreover, compared to the general punishment principles previously in place, the new edition had added clear penalty standards for violations, which represents remarkable progress.

In the newest edition (1995-2000) of The Women Development Outline, there were also notable revisions. The new edition placed more importance on women’s employment rather than productivity. One major goal of the new edition was to eliminate inequality against women and to make sure that women have equal employment opportunity instead of improving women’s productivity. Another major goal was to ensure women’s equal insurance and social security to those of the men.

The newest edition of the Law of Labor Union published in 2001 added clearer regulations about women’s rights and interests. For instance, it addressed that women could establish their own female labor union in organizations where women
were minority. It also intensified the power of labor union to protect female employees.

**B) The current situation of inequality for women in China**

In general, the interventions by Chinese government in promoting women’s social status and combating inequality have seen considerable benefits. Women’s education levels have been rising at a faster rate than that of men. Moreover, China has a far higher women’s employment rate than the world average (Cooke, 2001).

These achievements show that women’s share in the labor market has been increased quantitatively. However, whether the quality of women’s employment has been improved is still questionable. Moreover, the existence of a legal system to eliminate gender inequality does not mean that women can automatically enjoy equality in reality. Empirical evidence shows that gender inequality still commonly exists in China today.

Indeed, traditional Chinese gender roles and gender segregation are still so pronounced that gender inequality is prevalent all over the country, from recruitment through employment to retirement. First of all, the prevalence of gender and age discrimination in the recruitment process pushes women into disadvantageous positions. Women are traditionally considered to be less capable than men, with lower participation rates, lower adaptability, worse mobility and attendance records, and a shorter working life. Women are also associated with the “fuss” and “cost” caused by their physiological conditions (periods, illness, childbearing and care, extra legal protection, etc.) (Cooke, 2001). Therefore, Chinese employers prefer to
hire males, and they are used to openly discussing conditions or requirements that discriminate against women when performing recruitment and other tasks related to employment. For example, gender and age limits are often specified in the advertisements for job vacancies, even though the posts are factually suitable for both men and women. Age limits are especially used as an attempt to prevent women job applicants of childbearing age.

Second, the inequality in employment also exists widely in Chinese organizations. It is not unusual that women of childbearing age have to agree to harsh terms and conditions when they enter the employment relationship. For example, “the employer could terminate the employment contract once the female employee gets pregnant” is a common clause. Moreover, sex stereotyping and gender segregation still persists in China, and women in employment are disadvantaged in occupational hierarchy, pay, and promotion. On the one hand, women make up the majority of employees in agricultural and industrial sectors as “dark blue collar” and “blue collar.” Women also make up over 50 percent of workers in non-formal, private, and individual businesses, while men are the majority of most of the occupations and in state-owned sectors, where average earnings are highest and welfare is best in China. In a word, the social status of women’s occupation tends to skew towards the lower end with a widening wage gap between men and women at a societal level (Cooke, 2001).

On the other hand, women suffer from inequality in pay and promotion. In China, most women are in the lower ranks of organizations, and only very few of them can take managerial positions. Women take about 36 percent of the managerial
positions and only 8% of the TMT positions (2014, Hays). Moreover, the pay gaps between women and men are still huge. According to official statistics published by State Council (2011), women’s earnings are about 67.3% of the male workers’ in towns and cities and 56% in rural areas.

Third, women are disadvantaged in the termination of employment and retirement. Usually, women are more vulnerable than men to the loss of jobs, especially in the turbulence of economic reform, when the job market is weak. For example, the participation rate of women has dropped 7% because of the state initiative of state-owned enterprises restructuring in which thousands of workers have been laid off (the ministry of statistics, 1999). China as followed a retirement policy in which female workers in general retire five years earlier than males in the same occupations (Cooke, 2001). This legislative inequality defines women’s working life as much shorter than their male counterparts, which pushes women into a more disadvantaged position in terms of promotion and pay.

C) Research findings on the linkage between inequality and women’s performance in China

As discussed before, the issue of inequality is a major barrier for organizations to make full use of women employees. This is because inequality is harmful for women’s individual work outcomes, which are critical for organizations in realizing women’s resources and value. Moreover, the issue of organization inequality should be especially important for Chinese female workers, who usually have longer working time in organizations than their counterparts in other East Asian and
Western countries. Chinese female workers often keep working during pregnancy and return to work within several months after their childbirth, while women in other East Asian and Western countries are likely to drop out of the labor market during their childbearing period and then stay at home to take care of the child.

As the majority of research on this topic has been conducted in Western countries, relatively much fewer studies deal with how inequality affects job-related performance in China. One exception is Shaffer and her coauthors (2000), who compared the inequality situation and its effects on women’s job satisfaction, commitment, turnover intention, and life stress across four countries/regions. The results showed that women in China reported more inequality than their counterparts in the US, while less than those in Hong Kong. Regarding job-related outcomes, women in China have less job satisfaction, less commitment, less turnover intention, and equal life stress compared with their US counterparts.

Other previous studies mainly focus on the existence of gender inequality in China, while few have been devoted to examining how inequality influences job-related performance in Chinese organizations. For example, Wang (2005) conducted an analysis using data from five large Chinese cities. The data covered 16 industries, including construction, manufacturing, education, and other service industries, and the subjects were 16-60-year-old employees in these industries. Wang (2005) showed that, within each of the industries, female employees received lower salaries than their male counterparts. In addition, these female employees were promoted at a slower rate than the male employees. Li and Dong (2008) investigated 160 organizations in Nanjing city, with a sample size of 3,242 employees. Their findings
indicated that gender inequality was more likely to exist in smaller organizations or in organizations with private ownership. Moreover, the researchers found that a larger gap between men and women was more likely to be observed in industries with fierce competition or those that were subject to hard budget constraints, adopted piece rates, and a lower degree of employees’ bargaining power. Finally, Shen and Ge (2006) studied employees in China’s IT industry and found that, although the number of Chinese female employees in this industry was increasing, the distribution was severely skewed with respect to age, region, and occupation. For instance, the female employees were normally young in age (ranging from 15-30 years), better educated, resided in urban regions, and had professional occupations. The researchers pointed out that although the social status of women was improving and the gender gap was becoming narrower in urban areas, there were still significant issues with respect to improving the proportion of women in the workforce of IT industries, which are likely to pay better and are physically more suitable for females.

Table 1 provides a summary of the studies on inequality for women in China in recent years.

**Table 1: A summary of studies on inequality for women in China**

<table>
<thead>
<tr>
<th>Study</th>
<th>Authors</th>
<th>Findings</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Wang, M. 2005. The gender differences in salary in China’s urban labor market. <em>The Research of Economics</em>.10 (12): 35-44.</td>
<td>a) Chinese women are more likely to have jobs in low-income industries; b) In a given industry, Chinese female employees are more likely to have low income than their male counterparts.</td>
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<tr>
<td>Study</td>
<td>Authors</td>
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<td>2</td>
<td>Cooke, F.L. 2006. Informal employment and gender implications in China: the nature of work and employment relations in the community service sector. <em>International Journal of Human Resource Management</em>, 17(8): 1471–1487.</td>
<td>a) Many people enter some low-paid services sectors because they cannot find a better job and cannot afford to be unemployed. The majority of them are women; b) Employers are not only discriminating against women, but more so against women of ‘older’ age – in the Chinese context, this refers to women in their 30s or 40s (Cooke, 2001).</td>
</tr>
<tr>
<td>3</td>
<td>Xiaobo, H. 2007. An empirical analysis in gender difference of social network. <em>Guangxi Social Science</em>, 2: 172-174.</td>
<td>Women are disadvantaged in acquiring entrepreneurship information and opportunities. They have no opportunity to socialize with people who possess key capital and network; moreover, women often have little social capital to exchange with others.</td>
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<tr>
<td>4</td>
<td>Li, L. &amp; Dong, X. 2008. The role of firm effects in the gender earning gap: Evidence from China. <em>The Research of Economics</em>. 13(9): 122-134.</td>
<td>Gender inequality is more likely to exist in smaller firms or firms with private ownership. Moreover, firms that have a larger income gap between men and women are more likely to be observed in industries with fierce competition, subject to a hard budget constraint, adopt piece rates and have a lower degree of employees’ bargaining power.</td>
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<td>5</td>
<td>Shimei, Y., Shizhi, Y., &amp; Man, Z. 2008. Gender discrimination in enterprise human resource management and development. <em>Management World</em>, 11: 10-18.</td>
<td>a) Gender discrimination includes: glass ceiling, employment gender discrimination, occupational gender segregation and gender salary discrimination; b) There are more gender discrimination against women at workplace; c) Top and middle managers are more likely to perceive the glass ceiling and occupational gender segregation; low-level employees are more likely to perceive the occupational gender segregation and employment gender discrimination.</td>
</tr>
<tr>
<td>7</td>
<td>Woodham, C., Lupton, B., &amp; Xian, H.P. 2009. The persistence of gender discrimination in China – evidence from recruitment advertisements. <em>International Journal of Human Resource Management</em>, 20(10): 2084–2109.</td>
<td>a) Particular types of job may be reserved for men only, which is more prevalent in administrative and technical jobs, and less so in both sales and professional posts; b) Jobs with manufacturing, construction, and IT firms are more likely to be aimed at men, and jobs with retail firms are aimed at women; c) A minority of advertisements specify the preferred marital status of the applicant. This is more likely in jobs aimed at women, and the preference is for unmarried women and married men.</td>
</tr>
<tr>
<td>8</td>
<td>Shisong, Q. 2011.</td>
<td>There exists significant gender discrimination in career</td>
</tr>
<tr>
<td>Study</td>
<td>Authors</td>
<td>Findings</td>
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<tr>
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<tr>
<td>75</td>
<td>Gender discrimination in career promotion. <em>Management World</em>, 11, 28-38</td>
<td>Specifically, for the same job, women are required to have better qualifications when competing with men.</td>
</tr>
<tr>
<td>9</td>
<td>Li, W. 2013. Research on differences in economic status between Chinese rural women and men. <em>Journal of China Women's University</em>, 25(3), 35.</td>
<td>The gaps between women and men in economic status are still huge in rural China. Women are obviously and seriously disadvantaged compared to men.</td>
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</table>
Chapter 7

Women as Important Organization Resource for Improving Organization Performance

In this chapter, I apply a resource synergy perspective to examine the issue of making full use of women resources in organizations. Based on the literature reviewed in the previous four chapters, I deal with this issue on two levels; i.e., the macro and micro level. As I discussed before, there are two major obstacles preventing organizations from taking advantage of women: unwillingness to hire women and inequality within organizations after women are accepted. Therefore I focus on these two issues, i.e., the increase of women proportion and inequality. In study 1, I suggest that increasing women’s proportion in the employees should help organizations take advantage of women resource. Moreover, with the existence of certain synergy-relevant variables, organizations can make better use of women resource. Moreover, I argue that to make full use of women resources, it is critical or fundamental to have good individual performance of women because the resource such as the skills, perspectives and knowledge are mastered and embedded in individuals. Only with women employees’ good individual performance can the organization really make use of the resources of women. Therefore, in study 2, I suggest that inequality is negatively related to women’s individual performance, which indicates resource loss for organizations. However, with the synergistic effects of LMX, the negative effects of inequality can be alleviated. In other words, LMX exerts supportive and cooperative effects in the situation of inequality, which
helps the organization make better use of women resources. I’ll discuss the two studies in detail as follows.

At the macro level, I focus on the relationship between female participation in the workforce and organization performance in China. I study the effects of including more women in the workforce on organization performance in service industries. Based on previous research, the alignment with human resources and certain synergy-relevant variables, including organization strategy, culture, and task characteristics, is critical for organizations to realize the value of human resources (e.g., Barney and Wright, 1997; Chatman et al., 1998; Richard, 2000; Wright, Dunford, & Snell, 2001; Zhu, Chew, & Spangler, 2005). Thus, I propose in study 1 that, to enable organizations to make full use of women, it is vital that they gain cooperation and consistency among the increase of the proportion of women and customer-oriented strategy, the culture of collectivism, and task complexity. In other words, I propose that the synergy between women resources and the synergy-relevant variables, including customer-oriented strategy, the culture of collectivism, and task complexity, can enhance the positive effects of women resources on an organization’s financial performance.

Especially, I conduct study 1 in the service industry. The reason for this choice is that human resources are especially important in this industry. Unlike other industries like manufacturing, the service industry relies a great deal more on human resources than technology, plant and equipment, and raw materials. Therefore, human resources are more likely to help organizations in the service industry build competitive advantages. Indeed, a bundle of previous works of research on diverse
human resources, especially those conducted at the organization level, focused on the service industry to examine the effects of these human resources (e.g., Ely, 2004; Li et al., 2011; Richard, 2000; Richard, Ford, & Ismail, 2006). Moreover, organizations in the service industry emphasize customer needs and usually have frequent interactions with customers. Given this fact, the advantages of women resources can be especially valuable in this industry, such as women’s relationship-orientation, a greater ability for elatedness, emotional closeness, and empathy ability (e.g., Lewis & Cooper, 1999; Omar & Davidson, 2001).

At the micro level, I suggest that women’s individual performance is critical for organizations to realize their value. I deal with one major obstacle for organizations to make full use of women resources: inequality. I propose that women’s inequality perceptions lead to harmful job-related outcomes; i.e., job performance and turnover intention. These negative outcomes indicate resource loss for organizations. However, with a high quality of LMX, which helps alleviate the negative effects on women’s job-related outcomes, generates synergy with women resources. Thus, the resource of women can be better utilized. This is in line with the extant research that suggests that leadership is significantly related to the utilization of human resource in organizations.

The theoretical model is depicted in Figure 1.
Figure 1: The conceptual model

Study 1
Organization level

- Proportion of women
- Task complexity

Study 2
Individual level

- Inequality
- LMX

Collectivism

ROA

Market growth

Customer-oriented strategy

Women’s job performance

Women’s turnover intention
7.1 A macro model of women resources: the proportion of women, resource synergy, and organization performance

A) The relationship between the proportion of women and organization-level performance

In the service industry, women should be a valuable human resource that helps organizations distinguish themselves from their competitors. First, women should help organizations reach and serve their customers better. In fact, women not only represent more than 75% of buyers of products and services, but they also make 80% of the purchasing decisions on housing spending (Stephenson, 2004), which implies that women make up the majority of customers. As organizations reach out to this broader customer base, they need to take advantage of employees who understand these female customer preferences and requirements (Morrison, 1992). Thus, with women joining the workforce, organizations gain resources such as greater insights, cultural sensitivity, and a deep and intimate knowledge of consumers and markets, all of which should help improve the organizations’ ability to reach different market segments and to satisfy customers’ needs (Cox & Blake, 1991). For instance, an insurance firm trying to sell life or medical products to female customers may be more successful if it has the right proportion of women among its employees. This positive effect of women on serving customers better has been suggested by previous researchers. For example, Cox (1994) suggested that organizations may achieve a competitive edge in the market by increasing the numbers of women and racial-ethnic minorities because of the better match in demographic characteristics between the employees and the customers.
Second, in addition to placing organizations in a better position to satisfy women customers’ needs, women have other unique advantages that also make them valuable within organizations. As suggested by previous research, women are more likely to possess a feeling cognitive style, which emphasizes harmony and sympathy with others. Also, studies suggest that women are more relational-oriented, nurturing, and caring (e.g., Cooper & Lewis, 1999; Omar & Davidson, 2001). These characteristics are likely to enable women to inspire confidence among peers and subordinates, share information and power, bring people together, and respond to challenges (Hurst et al., 1995). Also, these advantages should facilitate smooth communication, harmonious interpersonal relationships, and efficient cooperation, thus making women more valuable in this age of flat organization and teamwork structures.

In addition, owing to women’s different cognitive style from that of men, they provide distinct perspectives and viewpoints of their workplaces, which should compel employees, including the male ones, to take in and absorb different opinions, from which the quality of decisions should be improved significantly and more creativity should be cultivated to a higher degree (e.g., Dezső & Ross, 2012). These alternative perspectives are especially important and necessary for organizations in the service industry in order to propose various solutions to satisfy customers’ needs more effectively and thus gain competitive advantages.

Third, when an organization accumulates sufficient experience and a good reputation pertaining to the acceptance of female employees, it actually controls another set of unique and difficult-to-copy resources: social capital and institutional
legitimacy. This process may enhance the competitive advantages for an organization. For instance, with such resources, an organization may be more apt to attract customers who may consider such organizations to be more reliable and responsible. Moreover, women in the labor market may also be attracted by an organization’s favorable reputation; thus the organizations may have more access to talented female employees. Even more important is that these resources can be particularly difficult for competitors to copy or imitate, because the establishment of organizational image and institution takes a long time.

Based on the above arguments, the resources brought by women should help organizations gain greater competitive advantages in serving a broad market and lead to a higher growth rate in the market share. Moreover, these resources are also valuable with regard to various aspects such as improving work efficiency, refining decision making, and promoting creativity, which should help organizations gain more returns from their services and products.

Therefore I predict the following hypotheses:

**Hypothesis 1a:** In the service industries, the proportion of women should be positively related to the organization’s return on assets (ROA).

**Hypothesis 1b:** In the service industries, the proportion of women should be positively related to the organization’s market growth.

According to the previous discussion, to generate above-normal returns, it is important that organizations secure resources that are valuable, rare, inimitable, and
non-substitutable to be fully exploited (Conner, 1991). Thus, in addition to simply possessing resources, an organization also needs to have certain synergy-relevant variables in order to be coordinative and consistent with the focal resources. Such supportive and coordinative effects (i.e., resource synergy) could help exploit the full potential of those resources (Barney, 1997; Barney & Wright, 1998). The organization’s distinctive competence involving making better use of its resources helps it achieve competitive advantages rather than only owning the resources (Mahoney & Pandian, 1992).

Based on my review of the research findings on the utilization of human resources and including more women in the workforce, synergy-relevant variables such as organization strategy, leadership, culture, and task characteristics are especially important. In this study, I focus on the synergy-generating effects of an organization’s culture (collectivism), strategy (the customer-oriented strategy), and the task characteristics (task complexity) in making better use of women as a resource.

B) The synergy between women resources and customer-oriented strategy

As I have discussed before, an organization’s strategy involves setting goals, determining actions to achieve the goals, and mobilizing resources to execute the actions. An organization’s strategy is important because it is integrated with organization resources and certain environmental and situational factors, and it defines the organization’s emphasis and the allocation of limited resources as well. Previous research has examined the effects of a variety of strategies on the
utilization of diverse human resources, including growth strategy (Dwyer, Richard & Chadwick, 2003; Richard, 2000), market diversification (Li et al., 2011), and stability orientation (Jehn & Bezrukova, 2004).

In this study, I focus on the strategy of customer orientation, which should be the most related strategy with women resources according to my discussion in the introduction. This strategy reflects the degree to which an organization puts customers’ interests first and gains a competitive advantage by undertaking customer-oriented activities, such as product augmentation and designing products with characteristics to enhance customer satisfaction (Bowen, Siehl, & Schneider, 1989; Hartline, Maxham III, & McKee, 2000; Liao & Subramony, 2008; Zhou et al., 2008). Since organizations with such a strategy tend to value customers to a high degree, it should be more important for such organizations to make full use of women resources. In other words, the strategy of customer orientation can be supportive and cooperative with the utilization of women resources. It can interact with the resources of female employees to generate resource synergy, helping the organizations serve customers better and achieve higher performance.

There are three reasons for that customer-orientated strategy interacts with women resources to generate synergy. First, female employees and the strategy of customer orientation are closely related to each other. For example, the strategy of customer orientation emphasizes the development of meaningful relationships with customers and high concern for customers (e.g., Franke & Park, 2006). It has also been suggested that women have the same emphasis on interpersonal relationships (e.g., Gilligan, 1982; Kanter, 1993). Women also tend to show concern towards
people, care about others, and bring people together (Stimpson et al., 1991). These characteristics also align with the strategy of customer orientation. As a result of the internal consistency and coordination, resource synergy is likely to be generated between women resources and customer-oriented strategy.

Second, organizations adopting the customer-oriented strategy can benefit even more from the utilization of female employees. This is because women resources should be valued more when an organization implements customer-oriented strategy and thus are more likely to be fully utilized. With more female employees to balance the gender proportion, an organization can have a broader and greater understanding of the preferences of a broader range of customers, both men and women (Cox, 1993; Jackson & Alvarez, 1992; Jehn & Bezrukova, 2004; Thomas & Ely, 1996). Specifically, as I discussed before, the increase of female employees can help organizations to serve female customers better. Female employees should have the ability to closely identify with and feel similar to female customers who possess the same gender characteristics (Tajfel & Turner, 1986). This ability can also result in beneficial attitudinal and behavioral outcomes of female employees, such as cultural sensitivity and insights and a unique understanding of customer needs (Jehn & Bezrukova, 2004). All of these resources provided by women are highly necessary and valuable for the implementation of customer-oriented strategy, since they help to align organizations’ marketing efforts and product design with the preferences of customers (Bendick, Egan, & Lofhjelm, 2001; Cox & Blake, 1991; Jehn & Bezrukova, 2004; Morrison, 1992; Richard, 2000).
Third, in an organization with such strategic environments emphasizing serving customers, the unique qualities female employees demonstrate are highly valued, which indicates a low possibility of women being discriminated against and ostracized. Moreover, the tolerance of diverse and conflicting views from women should also be enhanced. Therefore, a customer-oriented strategy helps an organization make better use of women resources, improve the overall organization processes, and thus organization performance (Jehn & Bezrukova, 2004).

According to the above arguments, I predict the following:

**Hypothesis 2a:** Customer-oriented strategy moderates the relationship between the proportion of women and the organization’s ROA such that the relationship can be strengthened when the organization adopts a customer-oriented strategy.

**Hypothesis 2b:** Customer-oriented strategy moderates the relationship between the proportion of women and the organization’s market growth such that the relationship can be strengthened when the organization adopts a customer-oriented strategy.

C) The Synergy between women resources and the culture of collectivism

Organizational culture is defined as shared standard operating procedures, strongly held values, and norms about patterns of group members’ behaviors (Chatman & Jehn, 1994; Rousseau, 1990; Triandis & Suh, 2002). Defined as the common set of shared meanings or understandings about an organization,
organizational culture is in fact a powerful social control system (O’Reilly & Chatman, 1996; Reichers & Schneider, 1990). In other words, organizational culture can work as an environment and an informational and social influence process to encourage solidarity rather than divisiveness among members of an organization (Williams & O’Reilly, 1998), whether in views, behaviors, or any other organizational aspects. Hence, there should be high potential for organizational culture to influence the process of making use of women. This is because culture may influence managers’ and members’ attitudes towards issues associated with women as employees in organizations, including values, differences, and conflicts.

In particular, I focus on one dimension of culture: collectivism. As I discussed before, collectivism is the dimension of culture that is most relevant to women as a different group of employees in organizations. Collectivism refers to the degree to which the people in an organization are integrated into strongly cohesive groups and base their self-understanding on the reactions of others (Hofstede, 1984, 2010). Collectivistic cultures emphasize cooperation, sociability, empathy, interdependence, good interpersonal relationships, balance, and harmony (Leung, Koch, & Lu, 2002; Kirkbride, Tang, & Westwood, 1991; Triandis, 1995). Owning to such emphasis, collectivism is likely to help resolve the conflicts caused by the increase of the proportion of women in the employees (e.g., Van Der Vegt, Van De Vliert, & Huang, 2005; Wegge et al., 2008).

To be specific, in consideration of the impacts associated with including more women in the workplace, I argue that the culture of collectivism should help reconcile these issues and provide an advantageous and supportive environment in
which women can realize their value. In other words, the culture of collectivism, which is considered as an environmental factor here, should generate synergy with the resources of women to amplify the advantages of employing women and help the organization to make full use of them.

The culture of collectivism should generate synergy with women resources in two ways. First, collectivism should help diffuse the conflicts between women and men employees. As suggested by previous research, men, who have long considered themselves in a more powerful social status group, are likely to discriminate against women and evaluate them negatively, especially when women are viewed in competition with the in-group for important resources (Wegge et al., 2008). Moreover, women have different cognitive styles and values from men, which may generate more conflicts between the two groups (e.g., Barnett & Hyde, 2001; Epstein, 1988). For example, research shows that men are more outcome-oriented, while women are relationship-oriented; men attach more importance to equity, while women prize harmony (e.g., Kulik et al., 1996; Major & Adams, 1983). Therefore, the realization of women’s value in the workplace can be threatened by the conflicts between these two gender groups, since emotional conflicts are suggested to have harmful effects on performance (e.g., De Dreu, & Weingart, 2003). However, with a high level of collectivism, this issue can be addressed effectively. Collectivistic values should help members cultivate a sense of cooperation and teamwork, which may reduce intergroup bias arising from gender differences (Gaertner et al., 1990; Tsui et al., 1992). That is, members are less likely to perceive differences among themselves and experience the negative effects of categorization processes.
This usually leads to greater team commitment and less conflict (Bishop & Scott, 2000; Jehn et al., 1999; Jehn & Bezrukova, 2004; West & Wallace, 1991). Moreover, since collectivism values connections and harmony, members influenced by such norms tend to avoid conflicts, even though they can perceive obvious differences from others. These is because members are highly motivated to act as members of a group and are motivated to maintain a positive image of their group (Jackson et al., 2006), and thus they tend to put shared values, common fate, and in-group membership ahead of differences and conflicts. Indeed, meta-analysis (Taras, Kirkman, & Steel, 2010) documents that collectivism is associated with a variety of positive behaviors, such as greater concern for others, in-group favoritism, conflict avoidance, and helping and cooperative behaviors (Chen et al., 2011). With such behaviors, the negative effects of conflict between the two genders groups can be attenuated significantly, which past research has attributed to improved performance.

Second, collectivism not only helps reconcile conflicts, but also facilitates making productive use of these conflicting opinions (Tjosvold, Wu, & Chen, 2010). This is because, in such organizations, members are more likely to strive for a win-win scenario, since they have a cooperative relationship in which they seek a mutually beneficial solution (Tjosvold, Leung, & Johnson, 2006; Tjosvold & Sun, 2001). Previous research shows that collectivistic values induce cooperative relationships between protagonists, which in turn promote an open-minded discussion characterized by the exploration, understanding, and integration of opposing views (Tjosvold, Wu, & Chen, 2010). Hence, one can expect male
employees to stay open-minded of women’s views and strive to understand and integrate these views into their own. Therefore, the quality of decision making and other usual work should be improved, which leads to better performance. Indeed, according to recent research, opposing views in organizations in which collectivism rather than individualism were valued could be productive (Tjosvold, Wu, & Chen, 2010). Tjosvold and coauthors (2010) suggested that such organizations could benefit from the opposing arguments by developing cooperative goals, devoting efforts to understanding others’ views, accepting the arguments as reasonable and combining positions to create an integrated decision.

In contrast with collectivism, individualism focuses predominately on the individual oneself, valuing independence and achievement (Markus & Kitayama, 1998). Individualistic values emphasize self-orientation, competition, uniqueness, autonomy, independence, and achievement (Triandis & Suh, 2002). Thus, members are likely to emphasize individual accomplishment as opposed to collective accomplishment and may seek differences amongst themselves to enhance their own self-image (Jehn & Bezrukova, 2004; Kim & Markus, 1999; Ng & Van Dyne, 2001). This desire to clearly delineate differences between individuals from diverse backgrounds may produce tensions detrimental to the efficient functioning of individuals within the group and the group as a whole (Mannix, Thatcher, & Jehn, 2001; Tsui et al., 1992). Moreover, the quest to assemble unique self-images induced by such competitive cultural contexts may prevent group members from realizing synergistic opportunities for cooperative performance outcomes superior to those produced individually (Beersma & De Dreu, 1999; Jehn & Bezrukova, 2004).
In such organizations, women are easily discriminated against and edged out by male groups, for they pursue the maintenance of being a superior group, and women are viewed as threats to their higher social status. Moreover, men are likely to refuse women’s conflicting opinions, since members are not used to cultivating a cooperative relationship with each other.

Based on the above arguments, one can find that collectivism can provide a supportive environment for female employees by diffusing the harmful conflicts and using the conflicting views productively. In other words, collectivism has cooperative and supportive effects on the increase of the proportion of women, generating resource synergy with women’s resources, and promoting the organization’s performance to a higher level with this synergy.

Therefore, I propose the following:

**Hypothesis 3a:** Collectivism moderates the relationship between the proportion of women and the organization’s ROA such that the relationship can be strengthened when the level of collectivism is high rather than low.

**Hypothesis 3b:** Collectivism moderates the relationship between the proportion of women and the organization’s market growth such that the relationship can be strengthened when the level of collectivism is high rather than low.

D) The synergy between women resources and task complexity
I propose that the task complexity at the organizational level should also benefit the realization of women’s value in organizations. Task complexity involves strong demands for complex decision making, high levels of control, skill use, and task variety (Wegge et al., 2008). Such complex tasks usually accompany a high degree of uncertainty and have few set procedures to follow. Thus, in an organization where most of the tasks are complex, difficult to understand, and risky, discussing and debating competing perspectives and approaches is essential for the members to identify appropriate task strategies and to increase the accuracy of members’ assessments of the situation (e.g., Amason & Schweiger, 1994; Jehn, 1995; Jehn, Northcraft, & Neale, 1999). In other words, a high level of task complexity requires constructive conflicts, various approaches to choose from, and efficient problem solving.

As I discussed before, female employees are usually distinct from their male counterparts in various ways, which facilitates the sharing of different perspectives, leading to a larger pool of resources as well as conflicts. In an organization with highly complex tasks, women should be given the opportunities and tolerance to demonstrate their unique perspectives, knowledge, experiences, and skills. In fact, such organizations should value women’s differences, since they can contribute to the identification of better approaches to accomplish complex tasks.

In contrast, if most of the tasks are simple and repetitive (Hall, 1972), members can rely on the routines and set procedures to achieve success. In such circumstances, debates about task strategy are unnecessary and likely to prove to be disruptive and counterproductive (e.g., Jehn, 1995; Jehn, Northcraft, & Neale, 1999). Moreover,
the knowledge sharing of women can also be perceived as unnecessary and a waste of time by other members because they do not see any advantage from different perspectives.

To summarize, high task complexity, as a type of situational factor, confers a positive, protective context in which women can show their talents. In other words, the high level of task complexity provides a supportive situation for women to generate resource synergy, which enhances women resources’ positive effects on organizational performance. Hence I propose that:

**Hypothesis 4a:** Task complexity moderates the relationship between the proportion of women and the organization’s ROA such that the relationship can be strengthened when the task complexity in the organization is high rather than low.

**Hypothesis 4b:** Task complexity moderates the relationship between the proportion of women and the organization’s market growth such that the relationship can be strengthened when the task complexity in the organization is high rather than low.

7.2 A micro model of women resources: Organization inequality, leadership, and performance

As I discussed before, the proportion of women and inequality are two key issues which are related to whether organizations can make full use of female employees. In the first study, I examine the utilization of women resources in
organizations by increasing the proportion of women among the employees. I proposed that including more women can provide valuable resources for organizations, which help achieve competitive advantages and improve financial performance. Moreover, I proposed that certain synergy-relevant variables (i.e., customer-oriented strategy, the culture of collectivism, and task complexity) could generate resource synergy with women resources and thus enhance the positive effects of the proportion of women on organization performance.

In the second study, I proceed to examine the utilization of women resources at the micro level. As I discussed before, the individuals master their resources, such as knowledge, skills, and capabilities; thus their job performance is closely related to the degree of resource utilization on women. In this study, I propose that inequality leads to a low level of job performance and high turnover intention. This is because inequality leads to resource loss for female employees, which results in negative job outcomes, and then eventually prevents organizations from making full use of women resources. Moreover, in concert with study 1, I also apply the resource synergy perspective to examine the effects of LMX on women’s performance. I argue that LMX should be a synergy-relevant variable which exerts supportive effects on women and then facilitates the utilization of women resources.

A) Effects of inequality on women’s performance

In this study, I argue that the issue of inequality matters especially for women, who have been historically discriminated against as a disadvantaged group. According to previous research (e.g., Kanter, 1993; Britton & Williams; 2000; Ngo,
et al., 2003), I define inequality in this thesis as unfairness in terms of income, authority, promotion, or other dimensions of employment conditions for women in organizations.

In daily work, women fulfill responsibilities to meet the job demands imposed by their organization. By collaborating with coworkers, solving problems, and making decisions, female employees invest their own important resources, such as cognitive resources (e.g., knowledge, skills, and perspectives) and motivational resources (e.g., sense of responsibility, goal commitment). Moreover, compared to male employees, women have to devote more resources to tackling challenges associated with their gender. For example, women usually have to devote more effort to overcome the problem of low self-esteem in the workplace (Wentling & Thomas, 2009). Moreover, women usually have to work harder to demonstrate their capability as a result of the prevalence of doubts and even ostracism from coworkers, especially from the male ones. Also, women need to work longer and perform better to get organizational rewards like pay raises and promotions (Major et al., 1984) because they lack access to the informal mechanisms that men often possess to achieve these outcomes (Sweeney & McFarlin, 1997).

However, women should regain new resources from the environment (i.e., the organization) in the process of using their own resources to regulate their behaviors and actions (Hobfoll, 2002). Resource regain is important for individuals to keep resource conservation and to exert control over their environment to fulfill their valued needs (Hobfoll, 2002). To be specific, being treated equally should be important for women to exercise resource conservation. In other words, if women
can perceive that the organization treats them and their coworkers generally equally, it is possible for female employees to regain additional resources from such perceptions. These additional resources from equality perceptions can be considered as returns on their resource investment and have great impact on employees. For example, the perception of “I can count on my organization to be fair” may foster feelings of security and trust (Aryee, Budhwar, & Chen, 2002). The experiences of being rewarded by the organization may lead to a sense of competence and accomplishment. Perceiving being paid back by the organizations can lead to feelings of self-esteem and affective commitment (e.g., Lind, 2001), which are important motivational resources (Andrews & Thomson, 2009). With these additional resources provided by equality perceptions, women can maintain healthy motivational states, which help them make best use of their own resources and perform effectively. In addition, women should be satisfied and more willing to stay at the organization rather than intend to leave.

Conversely, if individuals’ resources regaining process is interrupted in the organization, they may face situations that lead to the loss of individual resources (Hobfoll, 2002). According to Liao and coauthors (2011), this situation may lead people to invest other resources they have to counter or compensate for the primary resource loss. To the extent that the situation depletes the individuals’ resources, they tend to adopt less efficient or maladaptive loss control strategies, and a loss spiral occurs in which the resources needed to regulate emotions and behaviors deplete ever more rapidly (Bacharach & Bamberger, 2007; Hobfoll, 2002).
To be specific about women’s inequality perceptions, women can neither get returns for their invested resources, nor can they gain additional valued resources as they do from the equality perceptions. Thus, women perceive primary resource loss and come up with negative experiences such as aversive somatic and emotional arousal (e.g., anxiety, fear, and fatigue) and lowered self-efficacy (Franzblau and Moore, 2001). These negative experiences may lead to greater loss of women’s internal resources, which causes women to experience difficulty in regulating their behaviors in line with organizational demands (Liao et al., 2011). In other words, women tend to exhibit negative attitudes and behaviors, which lead to low performance and high level of turnover intention (e.g., Shaffer et al., 2000). As a result, the organization cannot utilize the resources of female employees well.

Based on the above arguments, I predict that women’s inequality perceptions harm women’s ability to regulate behaviors and perform well in the organizations. Therefore, I propose the following:

*Hypothesis 5a: There is a negative relationship between inequality and women’s job-related performance.*

*Hypothesis 5b: There is a positive relationship between inequality and women’s turnover intention.*

B) The moderating role of LMX

As I discussed before, leadership can be considered as a synergy-relevant variable which influences the effective management of employees (Burns & Otte,
1999; Graen, 1976; Katz & Kahn, 1966; Sims & Manz, 1996). While there are a variety of leadership styles, at the dyadic level of analysis (e.g., Graen & Uhl-Bien, 1995), LMX is one important leadership approach which has important implications for employees’ job-related outcomes. Moreover, as I discussed in the introduction, LMX has high potential to compensate for women’s resource loss caused by organization inequality which then affect women’s performance. Thus, I further propose that the quality of the relationship between an employee and the leader (i.e., LMX) will have moderating effects on the relationship between inequality and job-related outcomes.

Due to limited time and energy, leaders do not interact with all employees identically; rather, leaders usually engage in different types of exchange relationships with their respective employees, ranging from low- to high-quality LMX relationships (Dienesch & Liden, 1986; Liden & Graen, 1980; Liden & Maslyn, 1998). Low-quality LMX relationships are characterized by task orientation and mistrust (Dienesch & Liden, 1986). In low-quality LMX relationships, employees are reported to receive much less attention or benefits from their leaders (Dienesch & Liden, 1986; Linden & Maslyn, 1998). In contrast, high-quality LMX relationships are characterized by high levels of trust, interaction, support, and formal and informal rewards (Dienesch & Liden, 1986), which lead to greater attention and benefits (e.g., more resource allocation and more frequent promotions) from the leader.

It is argued that leaders with higher quality LMX relationships with employees may be more effective than those having lower quality of LMX relationships (Liu et
Through positive and effective leader-member relationships, a leader can generate more power or influence over the employee. This is because employees engaging in high-quality LMX relationships have trust and respect towards the leader, making them be willing to follow the leaders’ instructions. Moreover, employees engaging in high-quality LMX relationships can get more resources from the leader, including information, support, and formal and informal rewards (Liden, Sparrowe, & Wayne, 1997; Rosen, Harris, & Kacmar, 2011), which may cause the employees to feel obligated to be involved in favorable activities to repay the favors (Dienesch & Liden, 1986; Hackett et al., 2003; Liden & Maslyn, 1998). Since leaders usually emphasize job effectiveness and performance, employees tend to apply more effort within their work. What’s more, employees’ motivation to perform well in order to reciprocate the leader should still exist even though the exchange relationship between the employee and organization is interrupted (Rosen, Harris, & Kacmar, 2011). Hence, with this leadership approach, a leader can improve and sustain employee performance (e.g., Dansereau, Graen, & Haga, 1975; Graen, Novak, & Sommerkamp, 1982; Graen & Uhl-Bien, 1991; Graen & Wakabayashi, 1994). In the case of women who perceive organization inequality, they may still be devoted to work in order to reciprocate the leader, thus the negative effects brought about by organization inequality can be significantly attenuated.

In addition, it is suggested that leadership is developed based on organizational resources and should be contingent on certain environmental and situational factors. In other words, the effectiveness of leadership is influenced by how well it can complement the deficiencies of the environment and employees (House 1996). As
discussed above, organization inequality is detrimental to women, leading to a variety of negative outcomes, such as aversive somatic and emotional arousal (e.g., anxiety, fear, and fatigue), negative feelings towards the organization, lowered self-efficacy, and lowered ability to regulate behaviors (Franzblau & Moore, 2001). However, with a high quality LMX relationship with a leader, a female employee’s resource loss can be significantly compensated and alleviated. For instance, with trust and support, a female employee feels accepted and respected. With greater attention and benefits (e.g., more resource allocation and more frequent promotions) from a leader, a female employee can gain the rewards they do not receive from the organization.

To sum up, LMX, as a leadership approach, can help an organization alleviate the resource loss caused by organization inequality. Thus, the utilization of women resources can be improved with the synergistic effect of LMX.

**Hypothesis 6a:** Leader-member exchange (LMX) moderates the relationship between inequality and women’s job-related performance. With a high level of LMX, a negative relationship between inequality and job-related performance is less likely to be observed.

**Hypothesis 6b:** Leader-member exchange (LMX) moderates the relationship between inequality and women’s turnover intention. With a high level of LMX, a positive relationship between inequality and turnover intention is less likely to be observed.
7.3 The summary of resource synergy perspective

According to the above discussion, I summarize the perspective of resource synergy as follows. This perspective suggests that the full utilization of women resources can’t be achieved without certain synergy-relevant variables. In other words, for women resources to be fully exploited, resource synergy (i.e., the effective coordination and coherence between women resources and the synergy-relevant variables) is necessary. With resource synergy, the positive effects of women resources are well enhanced. More importantly, with the generation of resource synergy, the organization is more likely to gain competitive advantages and improve organization performance eventually.

The perspective of resource synergy can be applied to study the issue of making full use of women resources at two levels; i.e., the macro level and the micro level. In study 1, I propose that organizations can take advantage of women resources by increasing the proportion of women among the employees at the macro level. Moreover, I hypothesize that the positive effects of women resources can be strengthened by the coordinative and supportive effects of certain synergy-relevant variables; i.e., the customer-oriented strategy, the culture of collectivism, and task complexity.

In study 2, I suggest that making full use of women resources at the micro level is also important. I propose that organization inequality is one major obstacle preventing organizations from taking advantage of women. Organization inequality leads to women’s negative job-related outcomes, indicating resource loss for organizations. However, with the effective involvement of leadership (i.e., LMX in
this study), the negative effects of inequality can be weakened. Study 2 highlights that LMX is an effective leadership approach that exerts coordinative and supportive effects on the utilization of women resources and thus generates synergy with women resources.
Chapter 8
Methodology

8.1 Study 1: A macro model of women resources

A) Sample and data collection procedure

One hundred and eighty-eight organizations from southern China participated in this study, and 132 organizations with valid data were finally included in the sample. These organizations come from the service industry, including finance services, hotels, and restaurants.

In order to improve the equivalence of data collection, standardized procedures was employed across all organizations. Before the data collection was performed, respondents were informed that the survey aimed to study the management of organizations and they were assured of the confidentiality of responses. Data was collected in two steps. First, general information on the participating organizations (organization size, industry affiliation, employee demography, and so on) was obtained through the organizations’ HR executives. Answers to these questions were required in order to get basic information about the organization and the employees.

Second, one or two members of the organizations’ top management teams was provided with a questionnaire that mainly targeted information about organization performance, culture, strategy, and task structure. Each respondent placed his/her
completed survey into a sealed envelope and returned it to the human resource department or the person who conducted the survey.

B) Measures

Five-point Likert scales ranging from 1 “strongly disagree” to 5 “strongly agree” were used for all measures. The survey instruments were well established and were administrated in Chinese. Since all of the measures used in the study are originally developed in English, I followed the commonly used back-translation procedure to translate the measures into Chinese (Brislin, 1980). The back-translation procedure involved three translators who were bilingual researchers in the field of management. First, two researchers translated the survey written in English into Chinese, and then they reconciled concerns with each other. After that, the resulting Chinese survey was passed to the third researcher for back-translation. In the end, the final consensus on the Chinese survey was reached after the comparison between the original and back-translated English versions.

The proportion of women. I used the formula of “proportion of women = the no. of female employees/the no. of all employees.”

Collectivism. Collectivism was measured with an instrument adapted from the GLOBE study (House et al., 2004). This scale consists of six items such as “The pay and bonus system in this organization is designed to maximize the collective interests,” and “In this organization, leaders encourage group loyalty even if individual goals suffer.” The Cronbach’s alpha for this measure was .84.
**Task complexity.** Task complexity was measured using an eight-item scale developed by Jehn and coauthor’s (1999). A sample item is “the employees in your organization encounter a lot of variety in the technology they use in daily work.” Cronbach’s alpha for this measure was .75.

**Customer-oriented strategy.** The four-item scale applied by Jehn and Bezrukova (2004) was used in this research. A sample item is “My organization develops product and service offerings in rigorous analysis of customers’ needs.” The Cronbach’s alpha for this measure was .80.

**Organization financial performance.** The major dependent variables tested were an organization’s financial performance. Many relevant past studies have measured two dimensions of the performance; i.e., an organization’s return on assets (ROA) and market growth as measures of organization performance (e.g., Richard, 2000; Li et al., 2011), and I therefore also measure organization performance in terms of these two dimensions. Since most of the companies in the sample are not listed, I have no access to public performance data. Therefore, I applied the benchmarked perceptual measures to collect data on these two dimensions of performance. To be specific, the respondents were asked to judge their own organizations’ performance relative to the performance of their industry rivals located within the same industry (Kunze, Böhm, & Bruch, 2011).

**Control variables.** The study controlled for the effects of organization size (measured by number of employees), organization type (coded as numbers) and organization age. The reason for the inclusion of these control variables is that larger organizations and organizations with longer history may have more resources than
smaller organizations, which may influence the relationships among the proportion of women and the dependent variables (Li et al., 2011). In addition, I also controlled for the effects of the demographic characteristics of the management (including top management and middle management). I controlled for the effects of the proportion of women in the management and age diversity in the management because managers’ demographic characteristics may exert an impact on cultures and policies associated with female employees (e.g., Dezső & Ross, 2012; Kirkman, Tesluk, & Rosen, 2004; Mayo, Pastor, & Meindl, 1996).

C) Data Analyses

To analyze the data, I first conducted a series of confirmatory factor analyses to evaluate the convergent and discriminant validity of the key variables. Second, I performed descriptive analyses to evaluate the means, standard deviations, and intercorrelations of the variables involved. I then conducted regression analyses to test the relationship between the proportion of female employees’ and organization performance. Then I standardized the variables involved in moderation before I created the interaction terms, which were prepared for the test of Hypotheses 2a, 2b through 4a, 4b. To test these hypotheses, I performed hierarchical regression analyses. I selected the approach of hierarchical regression analyses because it was powerful to test relationships among dependent, independent, and moderating variables and was also efficient in making full use of data (Li et al., 2011). This method has been applied in research published in top-tier journals dealing with
similar topics (e.g., Herring, 2009; Richard, 2000). To deal with missing values, I used the approach of mean replacement, following previous research.

8.2 Study 2: A micro model of women resources

A) Sample and setting

To test the hypotheses, I collected data from four organizations from different industries in China; i.e., chemistry, electronics, manufacturing, and hospitality. From these industries, I randomly selected 65 frontline teams, each of which had between 5 and 9 members. I first invited the frontline employees in each team to respond to a questionnaire that examined their perceptions of inequality, the LMX level with their leaders, and their turnover intention. I then invited the immediate supervisor of these employees to respond to another questionnaire, which measured the subordinates’ performance.

Of the 616 questionnaires distributed, 372 completed questionnaires were returned. After deleting those with substantial missing data, I had 358 usable questionnaires representing an effective response rate of 58.11%. Since I focus on the female employees in study 2, 190 women were included in the sample. The average age of these female employees was 27.04 years (s.d. = 6.78); 52% were married. The average organizational tenure was 3.27 years (s.d. = 6.88). Regarding the supervisor sample, 70% were male and 30% were female. Supervisors reported an average age of 30.39 years (s.d. = 7.16), an average organizational tenure of 3.44 years (s.d. = 4.1), and an average supervisor-subordinate dyad tenure of 5.86 years (s.d. = 1.24). They supervised between 5 and 9 subordinates.
B) Measures

For all of the measurements in the current study, I measured items using a 5-point Likert scale. Questionnaires were administered in Chinese but were originally constructed in English. I followed Brislin’s (1980) recommended translation-back-translation procedure to translate the original English language version into Chinese. A bilingual academic at a major university in Hong Kong who was blind to the objective of the survey translated it into Chinese and another bilingual academic back-translated the Chinese version into English. I then compared the two English language versions of the questionnaire and the two translators discussed and resolved the few cases of disagreement.

Inequality. To measure organization inequality, I adapted items from the instruments developed by Ambrose and Schminke (2009) and by Colquitt (2001). These items measure overall justice, procedural justice, and distributive justice. Employees rated their agreement with each item on a 5-point scale ranging from (1) “strongly disagree” to (5) “strongly agree.” Sample items are thus: “In general, the treatment I receive around here (in this organization) is unfair,” and “Most of the people who work in this organization would say they are often fairly treated.” I reversed coded several items which measured equality. The scale’s alpha reliability coefficient in this study was .88.

Leader-member exchange (LMX). A seven-item scale adapted from Graen and Uhl-Bien (1995) was used to measure this variable. I changed some of the words to make them appropriate for subordinates to answer. An example of the items is “my supervisor is satisfied with me,” and another example is “my supervisor recognizes
me.” Similar to other scales used in this study, each item in the scale was rated on a 5-point scale ranging from (1) “strongly disagree” to (5) “strongly agree.” The scale’s alpha reliability coefficient in this study was .90.

**Job-related performance.** A seven-item scale from Williams and Anderson (1991) was used for leaders to report the job-related performance of their employees. Specifically, every leader in our sample was asked to assess each of his or her subordinates using the scale which also had response options ranging from (1) “strongly disagree” to (5) “strongly agree.” Sample items are “This subordinate adequately completes assigned duties” and “This subordinate fulfills responsibilities specified in job description.” The scale’s alpha reliability coefficient in this study was .73.

**Turnover intention.** Turnover intention was measured with a three-item scale from Shore, Newton, and Thornton (1990). A sample item is “How possible is it that you think you will look for a new job in the near future?” The Cronbach’s alpha for this measure was .93.

**Control variables.** Since I collected data from organizations from four organizations in four different industries, I controlled the effects of industry type and organization type, which are considered important in China. Previous literature has suggested that employees’ demographic characteristics, such as age, gender, organizational tenure, and education, are associated with job performance (e.g., Chen & Aryee, 2007; Ng & Feldman, 2008). Accordingly, I controlled for the effects of female employees’ age, education level, marriage status, and organizational tenure. For the supervisors, I controlled for the effects of the leaders’
gender, age, organizational tenure, and time with the subordinate (supervisory tenure). This is because previous research has suggested that leaders’ demography may influence the effects of demographically diverse employees in organizations (e.g., Kirkman, Tesluk, & Rosen, 2004). In addition, supervisory tenure was suggested to influence the leader-follower relationship (e.g., Hoffman et al., 2011).

Variables such as age, organizational tenure, and supervisory tenure were self-reported in years. Gender was dummy-coded, with male coded as “0” and female coded as “1.” Other control variables are coded as numbers. For example, Marriage status was dummy-coded in the same way, with unmarried as “0” and married as “1.” Education was coded as “1” for employees holding a junior high school degree or below, “2” for employees holding a senior high school degree, “3” for employees holding an associate degree, “4” for employees holding a bachelor degree, and “5” for employees holding degrees above bachelor degree.

C) Data Analyses

The data of study 2 was analyzed in the following ways. First, a series of confirmatory factor analyses were conducted to evaluate the convergent and discriminant validity of the key variables. Second, descriptive analyses were conducted to evaluate the means, standard deviations, and inter-correlations of the variables. Finally, I conducted hierarchical regression analyses to test the relationships proposed in the theoretical model.
Chapter 9

Results

9.1 Results of study 1: A macro model of women resources

A) Confirmatory factor analysis

As the data were collected from the same source, I conducted a series of confirmatory factor analyses (CFAs) to evaluate the distinctness of these variables. I first examined a three-factor CFA model that included collectivism, task complexity, and customer-oriented strategy (the proportion of women, ROA, and market growth were not included). The overall model’s chi-squared, comparative fit index (CFI) (Bentler, 1990), root mean square error of approximation (RMSEA) (Browne and Cudeck, 1993), and Tucker-Lewis Index (TLI) (Tucker and Lewis, 1973) were used to assess model fit. The proposed nine-factor model fitted the data well ($\chi^2 (74) = 132.93, p \leq .001; \text{CFI} = .94, \text{TLI} = .92; \text{RMSEA} = .078$). In addition, all of the factor loadings were significant, demonstrating convergent validity.

Moreover, I contrasted the three-factor model against alternative models to test the discriminant validity of the three constructs. Table 2 revealed the model comparison results (see Table 2). The results indicated that the three-factor model fitted the data considerably better than any of the alternative models did, as can be seen from the significant chi-square difference tests and model fit indexes. Thus, the distinctiveness of the three constructs in the study was supported. Given these results, all three constructs were applied in subsequent analyses.
Table 2: Results of confirmatory factor analysis for the measures of the variables studied (study 1)

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>Df</th>
<th>$\Delta \chi^2$</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-factor model (baseline model)</td>
<td>132.93</td>
<td>74</td>
<td></td>
<td>.92</td>
<td>.94</td>
<td>.078</td>
</tr>
<tr>
<td>Two-factor model 1: Collectivism and task complexity</td>
<td>389.43</td>
<td>77</td>
<td>256.5***</td>
<td>.70</td>
<td>.75</td>
<td>.176</td>
</tr>
<tr>
<td>Two-factor model 2: Collectivism and customer-oriented strategy</td>
<td>343.38</td>
<td>76</td>
<td>210.45***</td>
<td>.75</td>
<td>.79</td>
<td>.142</td>
</tr>
<tr>
<td>Two-factor model 3: task complexity and customer-oriented strategy</td>
<td>205.39</td>
<td>76</td>
<td>72.46***</td>
<td>.85</td>
<td>.88</td>
<td>.114</td>
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<tr>
<td>One-factor model</td>
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<td>77</td>
<td>345.02***</td>
<td>.61</td>
<td>.67</td>
<td>.20</td>
</tr>
</tbody>
</table>

Notes: TLI is Tucker-Lewis Index; CFI is the comparative fit index; and RMSEA is the root-mean-square error of approximation. $p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$. 

B) Descriptive statistics

Table 3 presents the means, standard deviations, and zero-order Pearson correlations of all key variables. Some interesting correlations were observed among the variables, and the correlations of the main variables were in the expected directions. For instance, organization age was positively correlated with collectivism ($r = .34, p \leq .01$). The proportion of women was positively correlated with ROA ($r = .21, p \leq .05$) but was not correlated significantly with market growth. The proportion of women was also positively correlated with task complexity ($r = .17, p \leq .05$). Task complexity was positively correlated with ROA ($r = .36, p \leq .01$) and market growth ($r = .17, p \leq .05$).

To further establish the relationships among the variables in the theoretical model, multiple regression analysis is required. In the next section, I will present the results of the multiple regression analysis.
### Table 3: Means, standard deviations, and correlations (study 1)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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</thead>
<tbody>
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<td>2. Organization type</td>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>3. Organization size</td>
<td>1.26</td>
<td>1.94</td>
<td>.09</td>
<td>.02</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Proportion of female managers</td>
<td>.43</td>
<td>.26</td>
<td>.13</td>
<td>.11</td>
<td>.14</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5. Age diversity in managers</td>
<td>.99</td>
<td>.28</td>
<td>.29**</td>
<td>.15</td>
<td>.22*</td>
<td>.22*</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>6. Proportion of women</td>
<td>.58</td>
<td>.13</td>
<td>.11</td>
<td>.02</td>
<td>-.01</td>
<td>.13</td>
<td>.09</td>
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<td></td>
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<td></td>
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<tr>
<td>7. Collectivism</td>
<td>3.80</td>
<td>.56</td>
<td>.34**</td>
<td>.16</td>
<td>.11</td>
<td>.23**</td>
<td>.28**</td>
<td>.14</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>8. Task complexity</td>
<td>3.58</td>
<td>.47</td>
<td>-.07</td>
<td>.02</td>
<td>-.02</td>
<td>.02</td>
<td>.07</td>
<td>.17*</td>
<td>.19*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Customer-oriented strategy</td>
<td>2.76</td>
<td>.72</td>
<td>.37**</td>
<td>.22**</td>
<td>.19*</td>
<td>.18*</td>
<td>.17</td>
<td>.17</td>
<td>.26**</td>
<td>-.24**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. ROA</td>
<td>3.32</td>
<td>1.04</td>
<td>.01</td>
<td>.03</td>
<td>-.03</td>
<td>.12</td>
<td>.08</td>
<td>.21*</td>
<td>.08</td>
<td>.36**</td>
<td>-.10</td>
<td></td>
</tr>
<tr>
<td>11. Market growth</td>
<td>3.17</td>
<td>1.32</td>
<td>.01</td>
<td>-.02</td>
<td>.07</td>
<td>.15</td>
<td>-.02</td>
<td>-.02</td>
<td>.10</td>
<td>.17*</td>
<td>-.03</td>
<td>.39**</td>
</tr>
</tbody>
</table>

*Note: N=132. *p≤05; **p≤01.*
C) Hypotheses testing

To ensure that the estimates in regressions were not threatened by multicollinearity, I conducted variance inflation factor (VIF) tests. None of the regression models had a VIF over the well-accepted threshold of 10 (Gujarati, 2003). Accordingly, multicollinearity should not be a threat for the empirical findings of this study.

To test the hypotheses I proposed in study 1, I followed the procedures used by previous researchers (e.g., Cohen et al., 2003) and conducted a series of four-step hierarchical-moderated multiple-regression analyses. Below I present the process and results of the analyses.

To test the main effects of the proportion of women and the moderating effects of customer orientation strategy, collectivism, and task complexity on ROA, the control variables (organization age, organization type, organization size, proportion of women in management, age diversity in management) were entered first (Model 1). Thereafter, the independent variable (i.e., the proportion of women) was entered in the second step (Model 2). The hypothesized moderating variables (i.e. customer-oriented strategy, collectivism and task complexity) were added in the third step (Model 3). Finally, the two-way interaction terms were entered in the fourth steps of the analysis (Model 4). The interaction terms (the proportion of women × customer-oriented strategy, proportion of women × collectivism, and proportion of women × task complexity) were computed with the standardized data of the independent variable and moderating variables.
To test the main effects of the proportion of women and the effects of the moderators on market growth, which was the other dimension of organization performance in this study, a similar approach was adopted. The results for these two hierarchical moderated multiple regression analyses are displayed in Table 4.

As shown in Table 4, the proportion of women was positively related to ROA ($\beta = .20, p \leq .05, \text{Model 2}$), thus supporting Hypothesis 1a. However, the relationship between the proportion of women and market growth was not significant ($\beta = -.04, n.s, \text{Model 6}$), making Hypothesis 1b unsupported. Moreover, customer-oriented strategy was found to positively moderate the relationship between the proportion of women and ROA ($\beta = .30, p \leq .01, \text{Model 4}$). Thus, Hypothesis 2a was supported. Customer-oriented strategy was also found to positively moderate the relationship between the proportion of women and market growth ($\beta = .23, p \leq .05, \text{Model 8}$). Thus, Hypothesis 2b was also supported.

Moreover, the results show that collectivism positively moderated the relationship between the proportion of women and ROA ($\beta = .20, p \leq .05, \text{Model 4}$). Therefore, Hypothesis 3a was supported. Collectivism also positively moderated the relationship between the proportion of women and market growth ($\beta = .23, p \leq .05, \text{Model 4}$), which supported Hypothesis 3b.

Finally, task complexity positively moderated the relationship between the proportion of women and ROA ($\beta = .25, p \leq .01, \text{Model 4}$). Therefore, Hypothesis 4a was also supported. Task complexity was also found to positively moderate the relationship between the proportion of women and market growth ($\beta = .21, p \leq .05,$
Model 8), which supported Hypothesis 4b. The interactions of the proportion of women and the moderators explained 14 percent of the variance in ROA ($\Delta R^2 = .14$, $F = 4.45, p \leq .001$), whereas the interactions explained 12 percent of the variance in market growth ($\Delta R^2 = .12$, $F = 1.34, p \leq .01$).
Table 4: The regression results of study 1

<table>
<thead>
<tr>
<th>Control variables</th>
<th>Return of assets (ROA)</th>
<th>Market growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
</tr>
<tr>
<td>Organization age</td>
<td>-.02</td>
<td>-.04</td>
</tr>
<tr>
<td>Organization type</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Organization size</td>
<td>-.06</td>
<td>-.05</td>
</tr>
<tr>
<td>proportion of women in managers</td>
<td>.11</td>
<td>.09</td>
</tr>
<tr>
<td>age diversity in managers</td>
<td>.07</td>
<td>.06</td>
</tr>
<tr>
<td>Independent variable</td>
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</tr>
<tr>
<td>Proportion of women</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.20*</td>
<td>.15</td>
</tr>
<tr>
<td>Moderators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer-oriented strategy (CS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collectivism (CM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task complexity (TC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.31**</td>
<td>.36***</td>
</tr>
<tr>
<td>Two-way interactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of women × CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of women × CM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of women × TC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.02</td>
<td>.06</td>
</tr>
<tr>
<td>ΔR²</td>
<td>.02</td>
<td>.04</td>
</tr>
<tr>
<td>F</td>
<td>.51</td>
<td>1.25</td>
</tr>
</tbody>
</table>

Note: N=132. *p≤.05; **p≤.01; ***p≤.001.
To interpret the interaction, I plotted the interaction term (See figure 2-7).

As Figure 2 -7 suggests, the proportion of women was more positively related to organization performance (ROA and market growth) when the level of the moderators (i.e., customer-oriented strategy, collectivism, and task complexity) were high.

Figure 2: The moderating role of customer-oriented strategy on the relationship between the proportion of women and ROA
Figure 3: The moderating role of customer-oriented strategy on the relationship between the proportion of women and market growth

![Graph showing the moderating role of customer-oriented strategy](image)

Figure 4: The moderating role of collectivism on the relationship between the proportion of women and ROA

![Graph showing the moderating role of collectivism](image)
Figure 5: The moderating role of collectivism on the relationship between the proportion of women and market growth

![Graph showing the moderating role of collectivism on the relationship between the proportion of women and market growth.](image)

Figure 6: The moderating role of task complexity on the relationship between the proportion of women and ROA

![Graph showing the moderating role of task complexity on the relationship between the proportion of women and ROA.](image)
Figure 7: The moderating role of task complexity on the relationship between the proportion of women and market growth
9.2 Results of study 2: A micro model of women resources

A) Design effect

In study 2, 51 supervisors provided ratings of job performance for 190 female subordinates. Since supervisors rated more than one subordinate, it is possible to cause a nested effect. In other words, the supervisor’s rating of one subordinate may influence his or her rating of another subordinate. I calculated the design effect to evaluate the supervisor rating effects. The design effect was used (design effect = 1 + (average cluster size - 1) x ICC1) rather than ICC (1), because ICC (1) is very sensitive to group size (Kaiser et al., 2006). The results showed that the effect size was 1.81 for job performance, which was below the conventional cutoff value of 2 (Kaiser et al., 2006; Wei & Wu, 2013). Hence, supervisor ratings were relatively independent and did not significantly influence the results of the study.

B) Confirmatory factor analysis

I performed a series of CFAs to test the validity of the constructs involved in the theoretical model: inequality, LMX, job performance, and turnover intention. A CFA of this four three-factor base model yielded fit indexes within an acceptable range ($\chi^2 (164) = 323.45, p\leq.001; \text{CFI} = .94, \text{TLI} = .95; \text{RMSEA} = .072$). In addition, all of the factor loadings were significant, demonstrating convergent validity. I further compared the four-factor base model with alternative models to test the discriminant validity. The results (the significant chi-square difference tests and model fit indexes) shown in Table 5 indicated that the baseline model fitted the
data considerably better than the alternative models. Thus, the distinctiveness of the four constructs in the study was supported.
Table 5: Results of confirmatory factor analysis for the measures of the variables studied (study 2)

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>$Df$</th>
<th>$\Delta\chi^2$</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-factor model (baseline model)</td>
<td>323.45</td>
<td>164</td>
<td></td>
<td>.94</td>
<td>.95</td>
<td>.072</td>
</tr>
<tr>
<td>Three-factor model 1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inequality and LMX</td>
<td>371.30</td>
<td>167</td>
<td>47.85***</td>
<td>.93</td>
<td>.94</td>
<td>.080</td>
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<tr>
<td>Three-factor model 2:</td>
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<tr>
<td>LMX and job performance</td>
<td>798.84</td>
<td>166</td>
<td>475.39***</td>
<td>.86</td>
<td>.88</td>
<td>.142</td>
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<tr>
<td>Three-factor model 3:</td>
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<tr>
<td>Job performance and turnover intention</td>
<td>794.84</td>
<td>166</td>
<td>475.39***</td>
<td>.83</td>
<td>.85</td>
<td>.142</td>
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<td>Three-factor model 4:</td>
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<tr>
<td>Inequality and job performance</td>
<td>371.30</td>
<td>166</td>
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<td>.94</td>
<td>.081</td>
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<td>Three-factor model 5:</td>
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<td>Inequality and turnover intention</td>
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<td>Three-factor model 6:</td>
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<td>387.62***</td>
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<td>1000.8***</td>
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<td>.190</td>
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</table>

Notes: TLI is Tucker-Lewis Index; CFI is the comparative fit index; and RMSEA is the root-mean-square error of approximation. *$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$. 

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C) Descriptive statistics

I conducted descriptive statistics analyses on the variables of study 1. Table 6 shows the means, standard deviations, and zero-order Pearson correlations of the variables. The correlations of the main variables are in the expected directions. For example, female employees’ inequality perceptions were negatively correlated with their work performance ($r = -0.23, p \leq 0.01$) and positively correlated with their turnover intentions ($r = 0.26, p \leq 0.01$). Interestingly, women’s inequality perceptions were found to be positively correlated to age ($r = 0.11, p \leq 0.05$), marital status ($r = 0.17, p \leq 0.05$), and organization tenure ($r = 0.24, p \leq 0.05$). Moreover, female employees’ job performance was negatively related to their turnover intentions ($r = -0.39, p \leq 0.05$). The above results are all in line with the theoretical predictions. However, to establish the relationships among the studied variables, a more rigorous analytical approach is required. In the next section, I will present the results achieved from the Hierarchical Regression Analysis.
Table 6: Means, standard deviations, and correlations (study 2)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tr>
<td>2. L age</td>
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</tr>
<tr>
<td>3. L tenure</td>
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<td>4.10</td>
<td>.37**</td>
<td>.73**</td>
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<td></td>
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<tr>
<td>4. S age</td>
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<td>.51</td>
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<td>5. Coworktime</td>
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<td>-.15*</td>
<td>.60**</td>
<td>.46**</td>
<td>.35**</td>
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<tr>
<td>6. S education</td>
<td>2.68</td>
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<td>.04</td>
<td>.51</td>
<td>.49</td>
<td>.28</td>
<td>.44</td>
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</tr>
<tr>
<td>7. S marry</td>
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<td>.50</td>
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Note: N (subordinates)=190. N (leaders)=51. *p ≤ 0.05; **p ≤ 0.01. L=Leader’s S=Subordinate’s
D) Results of hypotheses testing

To ensure that the estimates in the regressions were not threatened by multicollinearity, I conducted variance inflation factor (VIF) tests. None of the regression models had a VIF over the well-accepted threshold of 10 (Gujarati, 2003). Accordingly, multicollinearity should not be a threat for the empirical findings of this study.

To test the hypotheses I proposed in study 2, I followed the procedures used by previous researchers (e.g., Cohen et al., 2003) and conducted a series of four-step hierarchical moderated multiple regression analyses. Below I present the process and results of the analyses.

To test the main effects of inequality and moderating effects of LMX on women’s job performance, the control variables (supervisor’s gender, age, tenure, subordinate’s age, education, marriage status, tenure, and co-work time with the supervisor) were entered first (Model 1). Thereafter, the independent variable (i.e., women’s inequality perception) was entered in the second step (Model 2). The hypothesized moderating variables (i.e., LMX) were added in the third step (Model 3). Finally, the two-way interaction term was entered in the fourth step of the analysis (Model 4). The interaction term (women’ inequality perception × LMX) was computed with the standardized data of the independent variable and moderating variables, respectively.

To test the main effects of inequality and the moderating effects of LMX on turnover intention, a similar approach was adopted. Results for these two hierarchical moderated multiple regression analyses are displayed in Table 7.
<table>
<thead>
<tr>
<th></th>
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<td>.16*</td>
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<td>3.23***</td>
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<td>3.05**</td>
<td>2.88*</td>
<td>3.48***</td>
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</table>

*Note: N (subordinates)=190. N(leaders)=51. L=leaders’. S=subordinate’s. *p≤0.05; **p≤0.01; ***p≤0.001*
According to the results presented in Table 7, women’s inequality perceptions were negatively related to their job performance ($r=-.26, p\leq.001, M2$) and positively related to their turnover intentions ($r=.25, p\leq.01, M6$). Thus, Hypotheses 5a and 5b were supported.

Moreover, LMX was found to negatively moderate the relationship between women’s inequality perceptions and their job performance such that the negative relationship between these two variables was less likely to be observed when LMX was high rather than low ($r=.18, p\leq.05, M4$). In addition, LMX was also found to positively moderate the relationship between women’s inequality perceptions and their turnover intention such that the positive relationship between these two variables was less likely to be observed when LMX was high rather than low ($r=-.23, p\leq.01, M8$). Therefore, Hypotheses 6a and 6b were also supported.

The moderating effects were also examined by plotting figures. Figure 8 shows that the negative relationship between inequality and job-related performance was weaker when LMX was high than when it was low. Figure 9 indicates that the positive relationship between inequality and turnover intention was also weakened when the level of LMX was high.
Figure 8: The moderating role of LMX on the relationship between inequality and women’s job-related performance

Figure 9: The moderating role of LMX on the relationship between inequality and women’s turnover intention
### 9.3 A summary of hypotheses testing

Table 8 presents the supported and unsupported hypotheses based on the above results.

#### Table 8: A summary of hypotheses testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>supported</th>
<th>Unsupported</th>
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<tr>
<td><strong>Study 1</strong></td>
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<tr>
<td>Hypotheses 1a: The proportion of women should be positively related to the organization’s ROA.</td>
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<tr>
<td>Hypotheses 1b: The proportion of women should be positively related to the organization’s market growth.</td>
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<tr>
<td>Hypotheses 2a: Customer-oriented strategy moderates the relationship between the proportion of women and the organization’s ROA such that the relationship can be strengthened when the organization adopts a customer-oriented strategy.</td>
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<tr>
<td>Hypotheses 2b: Customer-oriented strategy moderates the relationship between the proportion of women and the organization’s market growth such that the relationship can be strengthened when the organization adopts a customer-oriented strategy.</td>
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<td>Hypotheses 3a: Collectivism moderates the relationship between the proportion of women and the organization’s ROA such that the relationship can be strengthened when the level of collectivism is high rather than low.</td>
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<tr>
<td>Hypotheses 3b: Collectivism moderates the relationship between the proportion of women and the organization’s market growth such that the relationship can be strengthened when the level of collectivism is high rather than low.</td>
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<td>Hypotheses 4a: Task complexity moderates the relationship between the proportion of women and the organization’s ROA such that the relationship can be strengthened when the task complexity in the organization is high rather than low.</td>
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<tr>
<td>Hypotheses 4b: Task complexity moderates the relationship between the proportion of women and the organization’s market growth such that the relationship can be strengthened when the task complexity in the organization is high rather than low.</td>
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<tr>
<td><strong>Study 2</strong></td>
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<tr>
<td>Hypotheses 5a: There is a negative relationship between women’s inequality perceptions and their job performance.</td>
<td>○</td>
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<tr>
<td>Hypotheses 5b: There is a positive relationship between women’s inequality perceptions and their turnover intention.</td>
<td>○</td>
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<tr>
<td>Hypothesis 6a: Leader-member exchange (LMX) moderates the relationship between inequality and women’s job-related performance. With a high level of LMX, a negative relationship between inequality and job-related performance is less likely to be observed.</td>
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<tr>
<td>Hypotheses</td>
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<td>Unsupported</td>
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<tr>
<td>Hypothesis 6b: Leader-member exchange (LMX) moderates the relationship between inequality and women’s turnover intention. With a high level of LMX, a positive relationship between inequality and turnover intention is less likely to be observed.</td>
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Chapter 10

Discussion and Conclusion

This chapter consists of six sections. The first section is a review of the research findings. The second section discusses the theoretical implications. The third section discusses the managerial implications. The fourth section describes the strengths of the research. The fifth section discusses the limitations of the research as well as the directions for future research, and the final section presents the conclusion of the research.

10.1 Review of the research findings

This research focused on the issue of making use of women resource at multi levels. At the organizational level, I proposed that the increase of the proportion of women was positively related to organization performance. And at the individual level, I suggested that organization inequality should be a major obstacle preventing organizations from taking advantage of women resources. Moreover, I proposed a resource synergy perspective to study the issue at the organization level and at the individual level. I suggested that making use of women resources should be accompanied with certain synergy-relevant variables. The existence of these variables could generate synergy with women as resources, and the synergy could help the organization gain a competitive advantage and lead to positive organization performance. The research findings of studies 1 and 2 are discussed as follows.
In study 1, I found that, in the service industry, the proportion of female employees was positively related to organizations’ ROA, but it had no direct effect on the organizations’ market growth. The positive effects on ROA showed that women were a resource for organizations. This result was also consistent with the handful of studies that explored the effects of including more women on organization-level performance (Herring, 2009; Richard, Ford, & Ismail, 2006). However, this result was contrary to previous research, which usually reported negative effects of including more women in teams (e.g., Chuang, Nakatani, & Zhou, 2009; Drach-Zahavy & Somech, 2002; Ely, 2004; O’Reilly, Caldwell, & Barnett, 1989; Riordan & Shore, 1997; Tsui et al., 1992). Regarding the organizations’ financial performance in market growth, the results showed a neutral relationship between the proportion of women and organizations’ market growth. One possible explanation is that the increase of market growth is more complex, depending more on resources such as the organization’s strategy and culture. Actually, the supported moderating effects on the relationship between the proportion of women and market growth were in line with this explanation.

In addition, I found that the positive effects of women on organization performance were strengthened with the existence of certain synergy-relevant variables. In other words, these variables generated synergy with the resource of women, and synergy can enhance organization financial performance to a higher level. First, I found that the customer-oriented strategy strengthened the positive effects of the proportion of women on ROA and market growth. These results indicated that the adoption of customer-oriented strategy was beneficial for the
utilization of women and that resource synergy could be generated with such a strategy.

Furthermore, I found that one dimension of organizational culture (i.e., collectivism) could strengthen the positive effects of women on organization performance. Collectivism moderated the relationship between the proportion of women and organization financial performance positively, such that the relationship was more easily observed when collectivism was high rather than low.

Finally, task complexity in the organization was found to strengthen the relationship between the proportion of women and the organization’s financial performance. When the complexity was high, it was more likely for organizations to make better use of women resources. This was in line with previous research suggesting that a high level of complexity facilitated cooperation among demographic-diverse members and led to good performance (e.g., Jehn, Northcraft, & Neale, 1999; Wegge et al., 2008).

In study 2, I found that organizational inequality was a major obstacle preventing organizations from taking advantage of women as resources. The results showed that women’s inequality perceptions led to a low level of job-related performance and a high level of turnover intention. This suggested that organizations should pay attention to the issue of inequality, which could bring about the loss of women resources. Such findings were in line with previous research, which suggested that inequality was detrimental to women in workplaces (e.g., Foley et al., 2002; Foley, Hang-Yue, & Wong, 2005; Shaffer et al., 2000).
Moreover, the findings of this research indicated that one leadership approach, (i.e., LMX) could generate synergy with women. With synergy generation, the negative effects of inequality on women’s performance were alleviated significantly. Therefore, a high level of LMX was suggested to be beneficial for the realization of women’s value in organizations.

10.2 Theoretical implications

This research makes several distinctive contributions to the literature. First, it is among the first to specify that women are a type of strategic resource for organizations and to provide systematic investigations on how to make full use of this resource. This research enriches the literature on utilizing a female workforce in organizations through multi-level investigations. At the macro level, the first study suggests that organizations can take advantage of women resources by increasing the proportion of women. Moreover, organizations can make better use of women through resource synergy between women resources and certain synergy-relevant variables. At the micro level, the second study shows that women’s inequality perceptions prevented organizations from taking advantage of women employees. In other words, inequality negatively influenced women’s individual performance, which should be the foundation of realizing women’s value and making full use of their resources. However, with the existence of a high level of LMX, these negative effects can be attenuated.

Based on the findings, this research deepens the understanding of women as a resource by identifying certain boundary conditions; i.e., the synergy-relevant
variables. At the organization level, the strategy of customer orientation, the culture of collectivism, and the task characteristic of complexity were identified. At the individual level, the role of LMX was identified. These variables are suggested to have cooperative and supportive effects on women resources, generating synergy and leading to better organization performance.

Second, this research develops a new perspective (i.e., the resource synergy perspective) to study the utilization of women as a strategic resource for organizations at multi-levels. No powerful and comprehensive theory has been created that can integrate previous studies on women from a perspective of organization management at both the macro and micro level. Hence, I develop this resource synergy to help fill this gap with two aspects. First, the resource synergy perspective emphasizes the interactions between women and certain synergy-relevant variables, significantly distinguishing it from previous theories and perspectives. This perspective stresses the importance of synergy between the focal resource and the synergy-relevant variables, suggesting that only with the cooperation and support of these variables can organizations make full use of women resources. Second, this resource synergy perspective bridges studies at different levels. With the subject of women as a resource running through the two studies, this research draws upon the resource synergy perspective to establish an overarching theoretical framework. This overarching theoretical framework should help increase comprehensive understanding of the role of women in organizations and how to make full use of them at different levels. In summary, the development of the resource synergy perspective not only contributes to the literature of women
workforce, but also introduces a new perspective for the resource theories.

Third, this research should extend the literature of culture by identifying the role of collectivism in making use of women as a resource. Results of this research show that the culture of collectivism at the organization level had significant effects on the utilization of women. Hence, the results should enrich the literature on organization culture and cross culture and may provide implications for international management.

Fourth, this research can also add to the literature of leadership. This research provides a new theoretical perspective on the role of leadership in making full use of women. It suggests that LMX generates synergy by exerting the cooperative and complementary effects on women and then decreasing the negative effects of inequality. Thus, the role of LMX is highlighted when female employees perceive inequality in organizations.

10.3 Managerial implications

By showing evidence about resource synergy between women and the synergy-relevant variables at both the macro and micro levels, my current study can help organization management to do a better job of managing human resources, especially female human resources today. In other words, this study should also provide useful knowledge for managerial practitioners.

Although this research fails to find the positive effects of the proportion of women on market growth, it does show that including more women in organizations is positively related to ROA. This result indicates that women can be a resource and
that organizations should try to make full use of this type of resource to improve organization performance. Therefore, organizations should provide equal opportunities in employment for women and include more women in the workforce.

It is also critical that organizations retain the existing female workforce through better talent management, thereby providing a flexible work environment that accommodates women’s personal needs and launches initiatives that foster their personal and professional development (Kohn & Hia, 1997). However, organizations may mainly focus on increasing the number of women they employ. It is imperative for organizations to fully understand and embrace the agenda of making full use of women and become committed to advancing it through all available and/or potential channels. In line with this point, this research goes further to investigate the roles of synergy-relevant variables which facilitate the utilization of women’s resources.

Applying the resource synergy perspective I propose in this research, I suggest that only accompanied with synergy-relevant variables which have coordinative and supportive effects on women’s resource, can organizations gain sustainable competitive advantages and better financial performance. In other words, organizations should pay attention to utilizing women’s talents and other resources instead of reaping the benefits of female employees automatically. This work suggests several paths by which managers and organizations can do so.

First, this research has shown that the organizational culture (i.e., collectivism) can generate synergy with the resource of women, and such synergy lead to enhanced organization financial performance. Hence, it is important for
organizations to consider whether their culture supports the utilization of women resources or not. With the culture of high collectivism, organizations can provide a favorable work environment where women are more likely to be accepted and respected. Moreover, in such a work environment, the negative effects brought about by women’s different perspectives can be offset. However, if the organization culture is high in individualism, it may be less likely for women resources to be fully exploited.

Second, as the effects of the customer-oriented strategy illustrates, a certain organization’s strategy can influence the relationship between women’s resources and organization performance. Accordingly, managers of competing organizations should understand this synergistic effect when implementing certain organization strategies, thereby influencing the demographic composition of their customer groups or their means of communicating and interacting. As suggested by past research, when assessing the pros and cons of a given strategy, management should take into account the possible short- and long-term effects of a prospective strategy on the relationship between organization human resources and organization performance (Li et al., 2011). Managers who have such an understanding will not only be able to maintain appropriate gender proportion, but will also be able to develop better human resource management policies, thereby aiding improvements in organization performance.

Third, the findings regarding task complexity indicate that organizations should pay attention to assigning women in appropriate tasks. Compared to simple and
repetitive tasks, tasks of high complexity can provide women with necessities and
opportunities to exhibit their unique talents, knowledge, skills, and perspectives.

Fourth, this research highlights the importance of women’s individual
performance in realizing their value in organizations. The results show that women’s
inequality perceptions lead to low job performance in organizations, which indicates
resource loss. Hence, it is vital for organizations and managers to improve women’s
equality perceptions within organizations, since equality concerns affect women’s
individual performance.

This research also shows that a high level of LMX can facilitate the utilization
of women by attenuating the negative effects of organization inequality. Based on
these results, managers and organizations should take measures to enhance the
quality of the leader-subordinate exchange relationship. This can be done through
supportive leadership behaviors (e.g., Gong et al., 2009), more leadership skills, etc.

Finally, the findings from our current study suggest that, even in emerging
economies, the utilization of women are likely to become increasingly important as
part of the effort to effectively manage human resources. In the presence of certain
synergy-relevant variables, the resources of women can help improve organization
performance.

10.4 Strengths of the current research

The research has several strengths. First, this research is theory-driven. I
propose the resource synergy perspective to explain how to make full use of women
at multi levels within organizations. This comprehensive theoretical framework enhances the theoretical contribution of this research.

Second, I conduct two empirical studies at multi levels to address the issue of making full use of women in organizations. I not only study women resources utilization by examining the effects of the proportion of women and organization inequality, but also test the effects of a variety of synergy-relevant variables. These two studies complete each other to provide a comprehensive theoretical model.

Third, the sample size is large in both studies (study 1 examines 132 organizations; study 2 examines 190 female employees and 51 matched leaders). The large sample size not only ensures the statistical power to detect significant relationships, which is important for testing the interaction hypotheses, as the interaction effect is often difficult to detect (Champoux & Peters, 1987; McClelland & Judd, 1993) but also increases the generalizability of the findings (Cohen et al., 2003).

Fourth, I collect the data of study 2 from both employees and their immediate supervisors. Hence, the possibility of common method bias is further minimized in study 2 (Podsakoff et al., 2003).

Fifth, I apply hierarchical regression analyses to test the hypotheses and control for some key variables that are likely to be associated with the outcome variables. The appropriate use of data analysis techniques should provide relatively accurate estimates for the proposed relationships (Cohen et al., 2003)

10.5 Limitations and future research directions
Although this research is carefully designed and implemented and also obtains some interesting findings, there are still several limitations that deserve specific mention. First, although I take measures to reduce common method variance (e.g., the use of multi-source data), the data of studies 1 and 2 may still be susceptible to common method variance. On the one hand, the dependent variables (organizations’ ROA and market growth) and moderators (collectivism, task complexity, and customer-oriented strategy) of study 1 are collected from a single source (the TMT member). On the other hand, in study 2, the independent variable (women’s inequality perceptions) and one of the dependent variables (turnover intention) are both collected from female employees. Moreover, the data of study 1 and 2 are both collected by one-wave rather than multi-wave methods (Podsakoff et al., 2003).

To assess the influence of common method variance, I calculate the variance explained by the method factor and obtained 22% for study 1 and 25% for study 2, all of which are lower than the cut-off value of 50% suggested by Williams, Cote, and Buckley (1989). Hence, common method variance is unlikely to be a pervasive problem in both studies 1 and 2. Nevertheless, I encourage future research to consider multi-source and multi-wave data collection to alleviate this potential bias.

Second, as a result of the limited access to non-listed organizations’ financial performance data, I use a subjective report of organizations’ financial performance, instead of objective data, which may threaten the validity of the research findings. However, previous empirical research has demonstrated that subjective measures are valid and may be applied to gain insight into operational and organizational performance (e.g., Hartenian & Gudmundson, 2000; Kunze, Böhm, & Bruch, 2011;
Rowe & Morrow, 1999). Nevertheless, future research may apply objective data to avoid the potential problems regarding the use of subjective performance measures (Starbuck, 2004).

Third, although the one-wave data collection in this research is in line with the cross-sectional design that dominates the relevant research, such a design cannot unequivocally determine the direction of causality (Cook & Campbell, 1979; Holland, 1986). For example, it is likely that the level of organization performance and women’s individual performance are already present when I measure the proportion of women and women’s inequality perceptions. Moreover, it is also possible that an organization with good financial performance has more resources, which facilitate hiring more women and provide favorable conditions for the utilization of women resources. Hence, I encourage future research to use the longitudinal design in which the same measures are assessed repeatedly to confirm the causality suggested by this research (Cook & Campbell, 1979; Holland, 1986). Moreover, a longitudinal design may enable us to explore the change effects of the key constructs over time (e.g., by measuring women’s proportion at different points in time, researchers can see whether and how organization performance levels change over time), which is theoretically important yet empirically understudied.

Fourth, I test the hypotheses of study 1 using employees from organizations in the service industry. Although this approach has the advantage of holding organizational and job context factors constant (Gong, Huang, & Farh, 2009), this leaves unanswered the question of the generalizability of the findings to other industries and sectors. Considering this, future researchers may replicate this
research in organizations from a variety of industries, such as industries of agriculture and manufacturing.

Fifth, the research findings about the main effects of the proportion of women on organization financial performance should be applied with caution by the management in organizations. The linear relationship between the proportion of women and ROA may be unrealistic under in some cases. For example, it should be unreasonable that an organization can achieve the best financial performance when its employees are all female in most cases. Given the fact that there are no such extreme organizations in the samples of this research, this finding should still be applicable in most cases, especially for organizations in the service industry. Moreover, this research has been conducted in China, where discrimination against women in recruitment is so serious that almost all organizations try to limit the percentage of women in the recruitment process (Cooke, 2001). Thus it is impossible that employers will hire women only. The point of this research finding should be providing evidence on the value of women employees and then encouraging Chinese employers to hire more women, rather than persuading them to hire women only. However, to improve the generalizability of this research finding, I encourage future research to explore more about the relationship between the proportion of women and organization financial performance. For instance, it is possible that there is a curvilinear relationship between the proportion of women and organization financial performance. Sixth, the perspective of resource synergy I proposed in this research is useful in study the issue of women resource synergy. This perspective highlights the roles of synergy-relevant variables in taking
advantage of women resources, departing from previous theoretical perspectives which explain the effects of diverse human resources in isolation with contextual factors. However, it is still in its infancy and I have taken only a first step in the development of this theoretical perspective. Hence I encourage future research to improve it with more solid theoretical background and test it with more empirical studies.

Finally, this research is conducted in China, where culture is different from that in other countries, especially Western countries. For example, research shows that China scores high in collectivism (House et al, 2004; Hui, 1988). Such cultures may influence the effects of organizational culture on the utilization of women in organizations. Moreover, the situation of women in labor market and organizations is also different from that of other countries. For example, in Western countries where the legal systems protecting women’s rights are well established and administered, organizations may not be able to limit the percentage of female employees. Therefore, the effects of increasing the proportion of women on organization performance may not be as significant in such countries as China, since the sex segregation among industries and occupations is not prevalent. Hence, validation studies in other cultural contexts are called for to verify the generalizability of the findings.

There are several other areas for future research. First, as an initial step toward systematic investigation of the utilization of women as a resource in organizations, this research is designed with a focus on the proportion of women and inequality, which are suggested to be two of the most important issues related to the utilization
of women resources. Accordingly, study one deals with the issue of including more women in the workforce at the organization level, while study two focuses on the issue of organization inequality for women in organizations. To move forward, future research is needed to explore additional issues related with the utilization of women in organizations. For example, previous research has suggested that issues such as work-family conflict and women’s personal factors are critical challenges for women in organizations, causing an impact on women’s attitudes and work behaviors (Chiu & Ng, 1999; Frenkel, 1999; Hemenway, 1995; Wentling, Rose, & Thomas, 2009). Hence, future research may examine whether and how organizations should make better use of women’s resource by removing these obstacles.

Moreover, in addition to the resource synergy perspective I propose in this research, there may be other theoretical frameworks that can help explain the utilization of women and the interactions between women and certain synergy-relevant variables. Therefore, I encourage future research to explore alternative theoretical frameworks which can help increase understanding of this issue, especially at all levels in organizations.

Second, following the resource synergy perspective proposed in this research, future research can further explore additional synergy-relevant variables which can generate synergy with women’s resources from multi levels in organizations. For instance, other organization strategies such as growth strategy, which was shown to influence the effects of racial diversity (e.g., Richard, 2000), may also help the organization make better use of women as a resource. For factors influencing women’s individual performance, an important direction for future research is to
examine the impact of organizational climate. According to social control theories (O’Reilly & Chatman, 1996; Pfeffer, 1997), organizational climate is an informal group control mechanism that shapes and regulates organization members’ behaviors. Given its control function, a certain type of organization climate that emphasizes positive interpersonal interactions among group members may benefit the utilization of women.

Third, as a research gap, the mechanisms through which women resources can be fully utilized are still unclear. Hence, in addition to the moderations I examined in this research, future research is highly needed to explore the mediation processes that convey women’s value. For example, Kunze and coauthors (2011) found that age diversity was related to the emergence of an age discrimination climate in companies, which negatively impacted overall organization performance through the mediation of affective commitment. In line with these findings, future research may be devoted to exploring similar mechanisms. To be specific, with the increase of women in organizations, certain mediating outcomes may be generated. These variables may be favorable or adverse to female employees, and then it may mediate the relationship between the proportion of women and organization-level performance.

Fourth, future research may examine more deeply how to make better use of women in light of their characteristics compared to their male counterparts. For instance, previous research suggested that female employees placed so much value on harmonious interpersonal relationships that they tended to define themselves more in the context of relationships than do men (e.g., Gilligan, 1982). This
tendency may make women more sensitive to such issues in the workplace. Hence, future research could examine the effects of interpersonal relationship-related issues on the utilization of women in organizations, such as providing support through role models and mentors and enhancement of team building. Moreover, as suggested by a meta-analysis of 31 gender-related studies (Konrad et al., 2000), men were more concerned about earnings and responsibility, whereas women were more concerned about prestige, challenge, task significance, variety, growth, job security, coworkers, supervisors, and the physical work environment. According to these findings, future research can explore whether and how these variables influence the utilization of women resources in the work environment.

10.6 Conclusion

In conclusion, this research develops a resource synergy perspective to study the issue of making full use of women at multi levels in organizations. At the organization level, this research examines the effects of including more women in the workforce on organization-level performance and the synergy between women and the customer-oriented strategy, collectivism, task complexity. At the individual level, this research investigates the relationship between women’s inequality perceptions and their individual performance and interactions between the inequality perceptions and LMX. Specifically, the findings from these two studies lead to several important conclusions.

First, women are indeed a valuable resource for organizations. The results of this research show that organizations’ ROA can be enhanced significantly with the
increase of women among their employees. However, this research also suggests that only with the synergy-relevant variables which are cooperative with women’s resources can the organizations take full advantage of women. In this research, I focus on multi-level synergy-relevant variables, including the organization’s strategy, organizational culture, and leadership. The results indicate that the synergy generated among women and these variables can bring more competitive advantages for organizations, which can lead to better organization financial performance.

Second, this research suggests that a multi-level approach involving multi-level variables should be necessary and helpful to study the issue of making full use of women in organizations. Studies on one level may not be sufficient to understand the issue of utilizing women’s value in organizations. To be specific, research should not only examine the effects of including more women in the employees, but also should pay attention to the maximization of women’s individual performance, which is the foundation of making full use of women.

Third, four sets of synergy-related variables (i.e., strategy, leadership, task characteristics and culture) are critical in influencing the utilization of women in organizations. The results of the two studies show that these variables can generate resource synergy with women’s resources, indicating their important roles in the utilization of women.

Fourth, inequality does have an effect on women in organizations. As I discussed before, women can be especially sensitive to the issue of inequality because of their historically discriminated social status. The results show that
women perform poorly and have high turnover intentions when they perceive inequality in the organizations.
REFERENCES


Brandtstadter, J., & Renner, G. (1990). Tenacious goal pursuit and flexible goal


Chunling, L., Shi, L. 2008. Market competition or gender discrimination?. *Social


Siciliano, J. I. (1996). The relationship of board member diversity to


APPENDIX

Appendix 1: Questionnaire (Chinese) used in study 1

企业 发展 调查 问卷

尊敬的 女士、先生:

c您好! 非常感谢您能抽时间参与本研究。以下信息以供学术研究之用。我们郑重承诺，绝对不会将您及公司的任何信息公开，请放心填写。

企业基本信息 (HR 提供)

1. 贵公司所属的具体 行业___________, 成立时间___________，企业性质___________。
2. 贵公司的 员工 数量是___________， 员工 女员工的数量是___________。

调查问卷（高层领导填写）

贵公司管理团队的构成情况是:

总人数是___________，其中 男性 的人数是___________，年龄 30 岁以下的人数是___________，年龄 30-40 岁的人数是___________，年龄 40-50 岁的人数是___________，年龄 50 岁以上的人数是___________。

请对照您的 实际 情形，选择最符合您现状的数字

（请阅读问题并在右栏中选择数字作答：1 表示非常不同意，5 表示非常同意，数字越大代表认同度越高。）

<table>
<thead>
<tr>
<th></th>
<th>非常不同意</th>
<th>有点不同意</th>
<th>中立</th>
<th>有点同意</th>
<th>非常同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 本组织中，即使个人 目标 所有损失，但管理者仍鼓励员工对团队之忠心</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. 本组织中，团体成员会因其 个人 成就 而 同感 荣耀</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. 本组织中之薪资及奖金系统，其设计之目的 在于 扩大 个人 利益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. 本组织中，团队 领导者 会因其 个别 成员 之成就而 同感 荣耀</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. 本组织中，员工表现出对工作组织之忠心</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. 本组织中，员工对组织之成就感到非常荣幸</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

194
1. 相较于同行业内的其他企业，本公司的收益回报增长更快
2. 相较于同行业内的其他企业，本公司的市场份额增长更快

| 1. 本组织中，员工每天的工作任务大多是相同的 | 1 | 2 | 3 | 4 | 5 |
| 2. 本组织中，员工的工作任务很常规 | 1 | 2 | 3 | 4 | 5 |
| 3. 本组织中，员工大多数时候都用相同的方法做相同的工作 | 1 | 2 | 3 | 4 | 5 |
| 4. 本组织中，员工的工作任务重复性很高 | 1 | 2 | 3 | 4 | 5 |
| 5. 本组织中，员工遇到的工作任务通常都有清晰可循的方法 | 1 | 2 | 3 | 4 | 5 |
| 6. 本组织中，员工通常只需要倚赖既有的流程就可以完成工作 | 1 | 2 | 3 | 4 | 5 |
| 7. 本组织中，通常有清晰固定的知识指导员工的工作 | 1 | 2 | 3 | 4 | 5 |
| 8. 本组织中，员工的工作通常都有容易理解的工作步骤 | 1 | 2 | 3 | 4 | 5 |

| 1. 贵公司极力兑现对顾客的承诺 | 1 | 2 | 3 | 4 | 5 |
| 2. 贵公司经常向顾客寻求反馈 | 1 | 2 | 3 | 4 | 5 |
| 3. 贵公司努力用顾客的语言体系与其沟通 | 1 | 2 | 3 | 4 | 5 |
| 4. 贵公司的产品和服务开发是基于对顾客需求的严密分析进行的 | 1 | 2 | 3 | 4 | 5 |

非常感谢您的配合！
Appendix 2: Questionnaire (Chinese) used in study 2

调查问卷 A（领导填写）

尊敬的女士/先生：

您好！

非常感谢您的协助，您的见解无对错之分，仅供学术研究之用。我们郑重承诺，
绝对不会将您及公司的任何信息公开，请放心填写。

您对每一位下属的评价

下属（1）：姓名：__________，性别：__________，

年龄：__________，与您共事的时间：__________。

<table>
<thead>
<tr>
<th>请对照您的下属的实际情况，选择最符合您下属现状的数字</th>
<th>非常不同意</th>
<th>有点不同意</th>
<th>中立</th>
<th>有点同意</th>
<th>非常同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 这位下属能够圆满地完成布置的任务</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. 这位下属能够履行职位说明书中确定的职责</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. 这位下属执行他人期待自己完成的任务</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. 这位下属能够达到正常的工作绩效标准</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. 这位下属参与对绩效评价有直接影响的活动</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. 这位下属常常忽略工作中必须完成的部分</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. 这位下属常常不能完成核心任务</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

下属（2）：姓名：__________，性别：__________，

年龄：__________，与您共事的时间：__________。

<table>
<thead>
<tr>
<th>请对照您的下属的实际情况，选择最符合您下属现状的数字</th>
<th>非常不同意</th>
<th>有点不同意</th>
<th>中立</th>
<th>有点同意</th>
<th>非常同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 这位下属能够圆满地完成布置的任务</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. 这位下属能够履行职位说明书中确定的职责</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. 这位下属执行他人期待自己完成的任务</td>
<td>1 2 3 4 5</td>
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<tr>
<td>4. 这位下属能够达到正常的工作绩效标准</td>
<td>1 2 3 4 5</td>
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</tr>
<tr>
<td>5. 这位下属参与对绩效评价有直接影响的活动</td>
<td>1 2 3 4 5</td>
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<tr>
<td>6. 这位下属常常忽略工作中必须完成的部分</td>
<td>1 2 3 4 5</td>
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<td></td>
</tr>
<tr>
<td>7. 这位下属常常不能完成核心任务</td>
<td>1 2 3 4 5</td>
<td></td>
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</tr>
</tbody>
</table>
调查问卷 B（员工填写）

尊敬的女士/先生:

您好！

非常感谢您的协助，您的见解无对错之分，仅供学术研究之用。我们郑重承诺，绝对不会将您及公司的任何信息公开，请放心填写。

您的学历：__________ 婚姻状况：__________
在公司工作的年限：__________ 每周工作的平均时间：__________

<table>
<thead>
<tr>
<th>问题</th>
<th>非常不同意</th>
<th>有点不同意</th>
<th>中立</th>
<th>有点同意</th>
<th>非常同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 您的领导对您很满意</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. 您的领导了解您在工作上的问题及需要</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. 您的领导非常认可您</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. 如果需要，您的领导会运用权力帮您解决工作上的问题</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. 您愿意支持您的领导的决策，即使您和她/他的观点不一致</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. 您的领导愿意维护您的利益</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. 您和领导之间关系融洽</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. 在未来一年，您会积极找寻一份新工作</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. 您时常想到要辞职</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. 您和领导之间关系融洽</td>
<td>1</td>
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<td>5</td>
</tr>
<tr>
<td>11. 总体来说，组织对待您是不公平的</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. 总体来说，您能够指望组织的公平</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. 总体来说，您受到了公平的对待</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. 通常来说，组织中的各项运作都是公平的</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. 多数同事都会认为自己受到了公平的对待</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. 组织的程序和准则非常公平</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>17. 组织的决策程序不公平</td>
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<td>18. 您相信组织有公平的程序政策</td>
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<td>20. 您的薪酬反应了工作的努力程度</td>
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<td>21. 您的薪酬和工作的完成程度是不相符的</td>
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<td>22. 您的薪酬反映了对组织的贡献</td>
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<td>23. 从绩效结果看，您的薪酬不公平合理</td>
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</table>
CURRICULUM VITAE

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